



Commission for  
**Communications Regulation**

# Market Review

## Fixed Voice Call Termination and Mobile Voice Call Termination

### Consultation and Draft Decisions

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## **Redacted Information**

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# 1 Introduction

- 1.1 A subscriber to retail fixed voice<sup>1</sup> call (**'RFVC'**) services and retail mobile voice call (**'RMVC'**) services can make and receive calls to and from subscribers on other fixed and mobile telephony networks.<sup>2</sup> Making and receiving calls across different Service Providers' (**'SP(s)'**)<sup>3</sup> networks is made possible by means of various wholesale interconnection services which include call origination,<sup>4</sup> call transit<sup>5</sup> (if necessary), and call termination. With respect to the termination component, a wholesale charge is applied by the called party's Service Provider to terminate or complete calls on its individual (fixed or mobile) network. This component of the broader wholesale interconnect services suite is referred to as wholesale voice call termination (**'WVCT'**).
- 1.2 WVCT<sup>6</sup> services offered by Service Providers fall into two categories; Fixed Voice Call Termination (**'FVCT'**) and Mobile Voice Call Termination (**'MVCT'**). When a subscriber of a Fixed Service Provider (**'FSP'**) or Mobile Service Provider (**'MSP'**) receives a call, that subscriber's Service Provider must terminate that call on its network. At a wholesale level a charge is levied by the called party's Service Provider on the calling party's Service Provider, in order to cover the costs associated with completing or terminating that incoming call on its network.

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<sup>1</sup> Please note that for the purposes of this Consultation, the term 'fixed voice' refers to voice services provided to end users who make/receive voice calls at a fixed location, i.e. typically within the home or a business premises. While the definition implies that the voice calls service is provided at a fixed location, it does not necessarily imply that the underlying or supporting network is always a wired network.

<sup>2</sup> In this Consultation, where appropriate, RFVC and RMVC are collectively referred to as 'Retail Voice Calls (**'RVC'**)'.

<sup>3</sup> 'Service Providers' means Fixed Voice Service Providers (**'FSPs'**) and Mobile Voice Service Providers (**'MSPs'**).

<sup>4</sup> Fixed Voice Call Origination (**'FVCO'**) is a wholesale service that involves the supply of the switching, routing, and conveyance of a voice call up to a designated point of handover on a network, which is typically located at a switching point in a telephone exchange (or equivalent point in a network). FVCO services are often supplied with an access path (FA or WLR) over which FVCO is supplied.

<sup>5</sup> Transit is a wholesale service provided to Fixed Service Providers and Mobile Service Providers (together referred to as 'Service Providers') that involves the switching, routing and conveyance of calls between the point of handover of the FVCO stage of a call, up to, but not including, the termination stage of a call. The termination stage is typically from the nearest switching point to the called party onwards. Several Service Providers currently provide transit in Ireland, including Eircom, BT and Virgin Media.

<sup>6</sup> Originating Service Providers may not be directly interconnected with a Service Provider and, in such circumstances, the purchase of FVCT or MVCT from the terminating Service Provider may take place via a third-party transit provider. This type of indirect purchase of FVCT or MVCT is not shown in Figure 1 below, as this illustrates the purchase of FVCT or MVCT when both Service Providers are directly interconnected.

- 1.3 The 'Calling Party Pays' ('**CPP**')<sup>7</sup> principle is a retail principle, that impacts wholesale termination markets and associated wholesale termination charges. These charges are not directly visible to retail subscribers of fixed or mobile voice services when they make or receive calls. However, calling parties' Service Providers may pass these WVCT charges onto their retail subscribers, either through the cost of making a call or in the overall cost of the service.
- 1.4 In providing RFVC, the FSP of the called party will apply a charge to the Service Provider (either a FSP or MSP) of the calling party (who originated the call on behalf of its subscriber) known as a Fixed Termination Rate ('**FTR**'). Thus, an FSP charges an FTR for providing FVCT. The FTR typically reflects the duration of the call and is charged on a per minute basis, with some FSPs varying their per-minute charge by time of day or week (peak / off peak/ weekend minutes), as well as levying a fixed per-call charge.
- 1.5 Similarly, in providing RMVC, a MSP will typically apply a charge known as a Mobile Termination Rate ('**MTR**') to the Service Provider of the calling party. Thus, an MSP charges an MTR for providing MVCT. Similarly, the MTR reflects the duration of the call and is charged on a per minute basis, with some MSPs varying their per-minute charge by time of day or week (peak/ off peak/weekend minutes), as well as levying a fixed per-call charge.
- 1.6 In this Consultation, where appropriate, FTRs and MTRs are collectively referred to as 'Termination Rates'. If a Service Provider originates and terminates a call on its own network (an 'on-net' call), the Service Provider effectively provides a termination service to itself.
- 1.7 Figure 1 below outlines a scenario whereby a subscriber is seeking to make a call (the '**calling party**') from their fixed line telephone or their mobile phone, to contact someone on a fixed line telephone (the '**called party**'). The calling party pays their Service Provider a retail charge for making the call. At the wholesale level, the calling party's Service Provider originates the telephone call on its network and, where it is directly interconnected,<sup>8</sup> hands the call over to the FSP of the called party, thereby facilitating the connection of the call to the called party.

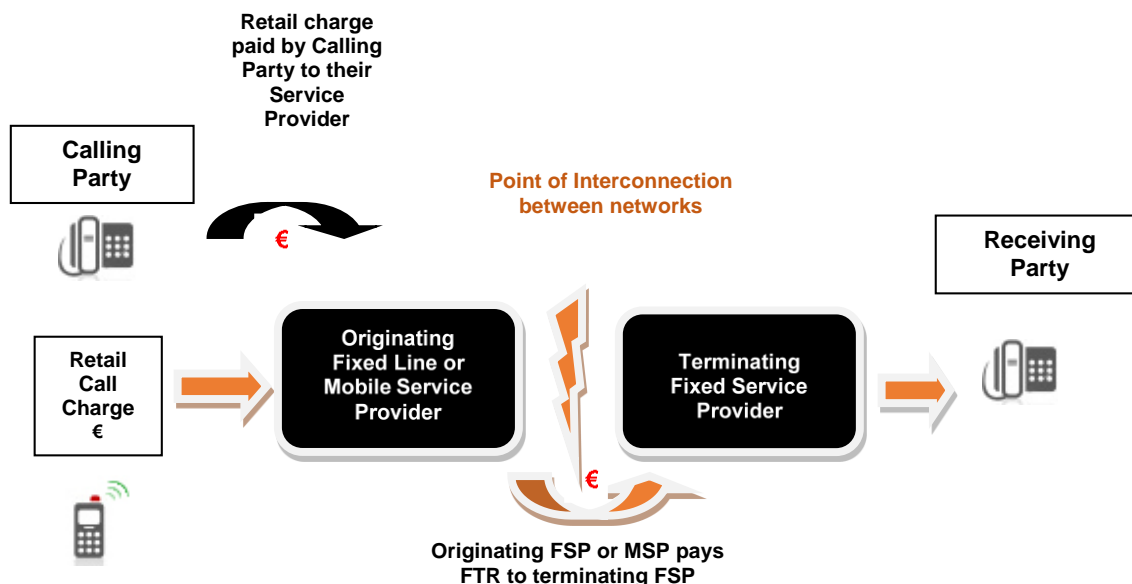
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<sup>7</sup> Under the Calling Party Pays principle, the subscriber initiating the call ('the calling party') incurs the cost of the call (charged either as a monetary amount, or as a deduction from the subscriber's allocation of bundled minutes). The subscriber answering the call ('the called party') incurs no cost in doing so.

<sup>8</sup> The calling party's Service Provider may also be indirectly interconnected to the called party's FSP, via another Service Provider which provides a wholesale call transit service.

- 1.8 The called party's FSP charges the calling party's Service Provider a FTR to reflect the cost of providing the FVCT service. While the calling party and the called party do not have direct visibility of FTR arrangements, it is likely that the calling party's Service Provider will pass some or all of the FTR through to the calling party via retail call charges.<sup>9</sup>

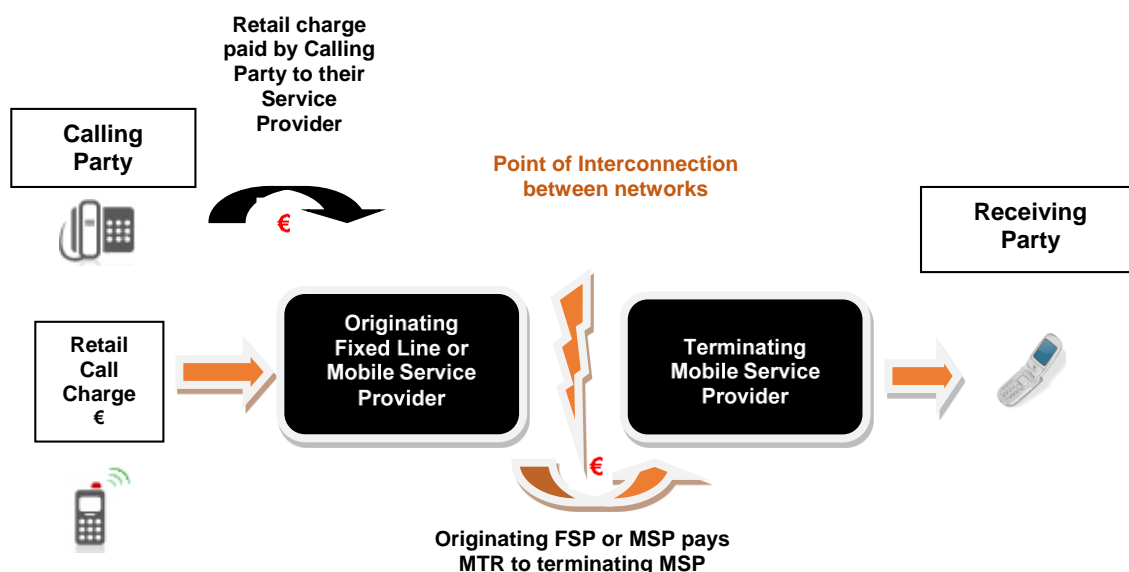
**Figure 1: Retail charging (Calling Party Pays) and FVCT arrangements**



- 1.9 As demonstrated in Figure 2 below, a MVCT service is provided when the calling party's Service Provider hands the call over to the MSP of the called party.<sup>10</sup> Similarly, the called party's MSP will then charge the calling party's Service Provider an MTR to reflect the cost of providing the RMVC service.

<sup>9</sup> This may be reflected in the cost of making calls or the overall cost of the package.

<sup>10</sup> Either directly where it is interconnected, or indirectly, via another Service Provider who provides a wholesale call transit service.

**Figure 2: Retail charging (Calling Party Pays) and MVCT arrangements**

- 1.10 In accordance with ComReg's regulatory role to review certain electronic communications markets, this Consultation presents ComReg's preliminary views on its analysis of the wholesale markets for both the provision of FVCT (the proposed '**Relevant FVCT Market(s)**') and, separately, the provision of MVCT on individual mobile networks (the proposed '**Relevant MVCT Market(s)**').
- 1.11 The objective of this review is, ultimately, to decide if, absent regulation, any FSP or MSP has Significant Market Power ('**SMP**') in a Relevant FVCT Market(s) or Relevant MVCT Market(s) (together the '**Relevant Termination Markets**') and, if so, to impose appropriate remedies to address any competition problems that have arisen or could arise in the duly-defined Relevant Termination Markets. Such competition problems could, for example, include:
- Refusal to supply FVCT or MVCT, resulting in an undermining of competition and the inability for consumers to make calls across networks;
  - The levying of excessive Termination Rates, resulting in higher costs for those Service Providers originating calls, with such higher costs passed through to retail subscribers in the form of increased charges for calls and/or other services.
- 1.12 Remedies (or obligations) imposed by National Regulatory Authorities ('**NRAs**') in other European Union ('**EU**') Member States, and by ComReg to date to address such competition problems have generally focussed on access obligations and price controls with respect to WVCT services, in addition to other remedies designed to ensure non-discrimination and transparency.

1.13 In this Consultation, ComReg presents its preliminary findings on its analysis of the Relevant Termination Markets. The analysis set out in this Consultation adopts the approach recommended by the European Commission ('EC') and, in doing so, takes the utmost account of:

- The **2014 Recommendation**<sup>11</sup> and the **Explanatory Note to the 2014 Recommendation**<sup>12</sup> on relevant product and service markets susceptible to *ex ante* regulation within the electronic communications sector;
- The 2002 **SMP Guidelines**<sup>13</sup> on market analysis and the assessment of SMP;
- The **2009 Termination Rate Recommendation**<sup>14</sup> on the regulatory treatment of Wholesale Termination Rates in the EU; and
- The 2005 **Accounting Separation and Cost Accounting Recommendation**.<sup>15</sup>

1.14 ComReg also takes account of:

- The European Commission's **Notice on Market Definition** for the purposes of community competition law,<sup>16</sup> and
- Any relevant common positions adopted by the Body of European Regulators for Electronic Communications ('BEREC').<sup>17</sup>

1.15 ComReg has also had regard to relevant European Commission comments made, pursuant to Article 7 of the Framework Directive, with respect to other EU NRAs' market analyses.

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<sup>11</sup> European Commission Recommendation of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation (the '**2014 Recommendation**').

<sup>12</sup> Explanatory Note accompanying the Commission Recommendation on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation, dated 9.10.2014 (the '**Explanatory Note to the 2014 Recommendation**'). The Explanatory Note to the 2014 Recommendation is available at <https://ec.europa.eu/digital-single-market/en/news/explanatory-note-accompanying-commission-recommendation-relevant-product-and-service-markets>.

<sup>13</sup> European Commission guidelines on market analysis and the assessment of Significant Market Power under the Community regulatory framework for electronic networks and services, OJ 2002 C 165/3 (the '**SMP Guidelines**').

<sup>14</sup> European Commission Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU (2009/396/EC) (OJ L124/67 20.5.2009) (the '**2009 Termination Rate Recommendation**').

<sup>15</sup> European Commission Recommendation of 19 September 2005 on accounting separation and cost accounting systems under the regulatory framework for electronic communications (2005/698/EC) (the '**2005 Accounting Separation and Cost Accounting Recommendation**').

<sup>16</sup> Commission notice on the definition of relevant market for the purposes of Community competition law, (the '**Notice on Market Definition**'), Official Journal C 372, 09/12/1997 pp.5-13.

<sup>17</sup> BEREC, as established by Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009 establishing BEREC and the Office.



- 1.16 This Consultation defines the Relevant FVCT Markets and the Relevant MVCT Markets with respect to both product and geographic dimensions. It also assesses competition within those markets and examines potential competition problems before proposing appropriate regulatory remedies, in addition to associated impacts, to address the competition problems identified. ComReg seeks feedback from all interested parties on the preliminary views set out in this Consultation.
- 1.17 Before setting out the analysis underpinning this market review, the remainder of this introductory section describes the relevant legal and regulatory framework, in addition to the regulatory approach in the respective Relevant Termination Markets to date.

## Legal basis and regulatory framework

- 1.18 This market review is being undertaken by ComReg in accordance with the obligation under the **Framework Directive**<sup>18</sup> (transposed into Irish law as the **Framework Regulations**<sup>19</sup>) that NRAs should analyse relevant markets, and take utmost account of the 2014 Recommendation and the SMP Guidelines.
- 1.19 Regulation 26 of the Framework Regulations requires that ComReg, taking the utmost account of the 2014 Recommendation and of the SMP Guidelines, defines relevant markets appropriate to national circumstances, in accordance with the principles of competition law.
- 1.20 The European Commission, in the 2014 Recommendation, describes the Relevant Termination Markets in the following terms:<sup>20</sup>
- “Wholesale call termination on individual public telephone networks provided at a fixed location” (‘Market 1’)*
- “Wholesale voice call termination on individual mobile networks” (‘Market 2’)*
- 1.21 Regulation 25 of the Framework Regulations requires that, where ComReg determines, as a result of a market analysis and in accordance with Regulation 27, that a given market (defined in accordance with Regulation 26) is not effectively competitive, that ComReg is obliged under Regulation 27(4) to designate an undertaking or undertakings with SMP in that market. In addition ComReg must, as it considers appropriate, impose specific obligations on such undertaking(s), or maintain or amend such obligations where they already exist.

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<sup>18</sup> Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, as amended by Directive 2009/140/EC (the ‘**Framework Directive**’). See, in particular, Article 16.

<sup>19</sup> European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011) (the “**Framework Regulations**”). The Framework Regulations transpose the Framework Directive into Irish law.

<sup>20</sup> Annex to the 2014 Recommendation.

- 1.22 In line with the “Modified Greenfield Approach” set out in the Explanatory Note to the European Commission’s 2014 Recommendation,<sup>21</sup> ComReg’s market assessment starts from the assumption that SMP regulation is not present in the specific market under consideration. However, regulation present in other related markets or through the general regulatory framework is considered. This approach avoids erroneously drawing conclusions regarding the competitive structure of a particular market which may be influenced by, or indeed premised on, existing regulation on that market. Considering how markets may function absent regulation helps to ensure that SMP-based regulation is only applied (or withdrawn) in circumstances where it is justified and proportionate to do so.
- 1.23 Where an operator is ultimately designated as having SMP in a market, ComReg is obliged, under Regulation 8(1) of the **Access Regulations**,<sup>22</sup> to impose on such an operator (or maintain where they already exist) such of the obligations set out in Regulations 9 to 13 of the Access Regulations as it considers appropriate. Obligations imposed must:
- Be based on the nature of the problem identified;
  - Be proportionate and justified in the light of the objectives laid down in section 12 of the Communications Regulation Act 2002 (as amended),<sup>23</sup> and Regulation 16 of the Framework Regulations; and
  - Only be imposed following consultation in accordance with Regulations 12 and 13 of the Framework Regulations.
- 1.24 Section 12(1)(a) of the Communications Regulation Act 2002 (as amended) sets out ComReg’s objectives in exercising its functions in relation to the provision of electronic communications networks, electronic communications services and associated facilities, namely to:
- Promote competition;
  - Contribute to the development of the internal market; and
  - Promote the interests of users within the European Union.
- 1.25 Apart from conducting a public consultation in accordance with Regulation 12 of the Framework Regulations, ComReg is also obliged to make its draft measures accessible to the European Commission, BEREC and NRAs in other Member States pursuant to Regulation 13(3) of the Framework Regulations.

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<sup>21</sup> Please refer to Page 13 of: <https://ec.europa.eu/digital-single-market/en/news/explanatory-note-accompanying-commission-recommendation-relevant-product-and-service-markets>.

<sup>22</sup> European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011) (the ‘**Access Regulations**’). The SMP Guidelines also state at paragraph 17 that “NRAs must impose at least one regulatory obligation on an undertaking that has been designated as having SMP”.

<sup>23</sup> Communications Regulation Act 2002 (No. 20 of 2002), as amended (the ‘**Communications Regulation Act 2002 (as amended)**’).

- 1.26 The **Relevant FVCT Markets** have, to date, been regulated in accordance with ComReg's 2007 FVCT Decision (the '**2007 FVCT Decision**')<sup>24</sup> in which Eircom and the following six alternative FSPs were designated as having SMP on their respective networks: BT Ireland; Verizon; UPC; Colt; Smart Telecom,<sup>25</sup> and Magnet Networks.
- 1.27 The 2007 FVCT Decision imposed regulatory obligations in the form of access, transparency, non-discrimination, price control, accounting separation and cost accounting on Eircom. Transparency, non-discrimination and price control obligations were imposed on the 2007 Alternative SMP FSPs.
- 1.28 Subsequent to the 2007 FVCT Decision ComReg undertook a market review of the Relevant FVCT Markets in 2011 and 2012, and published a Consultation and Draft Decision in September 2012.<sup>26</sup> However, while the Response to Consultation and Decision Document was notified to the European Commission,<sup>27</sup> a final decision was not adopted. The decision not to adopt a final decision was in the light of an appeal of parallel decisions<sup>28</sup> in the Mobile Voice Call Termination ('**MVCT**') Markets (the '**Mobile Termination Rates Appeal**'), which, amongst other things, sought to impugn a methodology that was also utilised in the FVCT Draft Decision.<sup>29</sup> That Mobile Termination Rates dispute was ultimately settled in February 2016<sup>30</sup> and a final decision was adopted in respect of the MVCT market on 12 February 2016.<sup>31</sup>

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<sup>24</sup> ComReg Decision No. D06/07, Market Analysis – Interconnection Market Review Fixed Wholesale Call Termination Services, ComReg Document 07/109, 21 December 2007. See <https://www.comreg.ie/csv/downloads/ComReg07109.pdf> ('**2007 FVCT Decision**').

<sup>25</sup> Smart Telecom has since been acquired by Digiweb, which itself subsequently acquired Viatel.

<sup>26</sup> ComReg Document No. 12/96, "Market Review – Wholesale Voice Call Termination Provided at a Fixed Location, Consultation and Draft Decision", dated 3 September 2012.

<sup>27</sup> Reference Number IE/2012/1372.

<sup>28</sup> See ComReg Document 12/124, Decision D11/12, "Market Review – Voice Call Termination on Individual Mobile Networks – Response to Consultation and Decision Notice", 21 November 2012 (the '2012 MVCT Decision'); and ComReg Document 12/125, ComReg Decision D12/12, "Mobile and Fixed Voice Call Termination Rates in Ireland", 21 November 2012 (the '**2012 Pricing Decision**').

<sup>29</sup> See ComReg Information Notice 12/139, "Appeal of ComReg's Decision on Mobile Termination Rates", of 20 December 2012; ComReg Information Notice 13/80, "High Court Judgment on Mobile Termination Rates", of 16 August 2013; ComReg Information Notice 13/97, "High Court Order following its Judgment of 14 August 2013 on Mobile Termination Rates", of 21 October 2013; ComReg Information Notice 13/99, "Supreme Court Appeal – Mobile Termination Rates Case", of 6 November 2013; and ComReg Information Notice 13/108, "Mobile Termination Rates Case", of 21 November 2013.

<sup>30</sup> ComReg Information Notice 16/14, "Mobile Termination Rates", of 16 February 2016.

<sup>31</sup> ComReg Document No. 16/09, ComReg Decision D02/16, "Mobile Termination Rates: Response to Consultation 14/29 and Supplementary Consultation 15/19 and Decision Document", dated 12 February 2016 (the '**2016 MTR Decision**').

- 1.29 As no final decision was adopted in respect of the FVCT Market pending determination of the Mobile Termination Rates Appeal, regulation of the Relevant FVCT Markets continues to be anchored to the 2007 FVCT Decision.
- 1.30 The **Relevant MVCT Markets** are regulated in accordance with ComReg's 2012 MVCT Decision (the '**2012 MVCT Decision**') and ComReg's 2016 Mobile Termination Rates Decision (the '**2016 MTR Decision**').<sup>32</sup> The 2012 MVCT Decision designated six Mobile Service Providers (**'MSPs'**)<sup>33</sup> as having Significant Market Power (**'SMP'**) on six defined relevant MVCT markets.<sup>34</sup> Various obligations were imposed on these MSPs in respect of transparency, non-discrimination, access, and price control, pursuant to Regulations 9, 10, 12 and 13 of the Access Regulations 2011.<sup>35</sup> ComReg did not, at the time, consider it necessary or justified to impose either cost accounting obligations or accounting separation obligations. The 2016 MTR Decision imposed cost oriented MTRs, determined using a Bottom-Up Pure LRIC cost model.

## Current Review of the Relevant Termination Markets

- 1.31 It is now appropriate to carry out a further review of both the Relevant FVCT Markets and Relevant MVCT Markets (together the '**Relevant Termination Markets**'), having regard to market developments and the time elapsed since previous analyses.
- 1.32 Pursuant to Regulation 27(1) of the Framework Regulations, ComReg is required to carry out an analysis of the Relevant Termination Markets, where appropriate, consulting with the Competition and Consumer Protection Commission (**'CCPC'**) under section 34 or 47G of the Competition Act 2002 (as amended).<sup>36</sup>
- 1.33 Overall, in preparing this Consultation, ComReg has taken account of its functions and objectives under the Communications Regulation Act 2002 (as amended), in addition to requirements under the Framework Regulations and the Access Regulations.

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<sup>32</sup> See footnote 31.

<sup>33</sup> H3GI, Lycamobile, Meteor, Telefónica, Tesco Mobile and Vodafone.

<sup>34</sup> Wholesale MVCT supplied by Hutchinson 3G Ireland Limited; Wholesale MVCT supplied by Lycamobile Ireland Limited; Wholesale MVCT supplied by Meteor Mobile Communications Limited; Wholesale MVCT supplied by Telefónica Ireland Limited; Wholesale MVCT supplied by Tesco Mobile Ireland Limited; and Wholesale MVCT supplied by Vodafone Ireland Limited

<sup>35</sup> The European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011, S.I. No. 334 of 2011 (the 'Access Regulations').

<sup>36</sup> Competition Act 2002 (No. 14 of 2002), as amended, ("**Competition Act 2002 (as amended)**")

1.34 Throughout this Consultation, in the interests of consistency, ComReg will refer to the various categories of Service Providers in the following terms:

**Table 1: Service Provider terminology**

<b>FVCT Service Providers</b>	
<b>Name</b>	<b>Description</b>
2007 SMP FSPs	The 7 FSPs designated with SMP in the 2007 FVCT Decision
2007 Alternative SMP FSPs	The 6 FSPs designated with SMP in the 2007 FVCT Decision, excluding Eircom
Proposed SMP FSPs	The 22 FSPs proposed to be designated with SMP arising from this Consultation
Proposed Alternative SMP FSPs	The 21 FSPs proposed to be designated with SMP arising from this Consultation, excluding Eircom
Newly Proposed SMP FSPs	The 15 FSPs proposed to be designated with SMP arising from this Consultation which are not currently so designated
Unregulated FSP	Any FSP offering FVCT which is not currently designated with SMP
<b>MVCT Service Providers</b>	
2012 SMP MSPs	The 6 MSPs designated with SMP in the 2012 MVCT Decision <sup>37</sup>
Proposed SMP MSPs	The 7 MSPs proposed to be designated with SMP arising from this Consultation
Newly Proposed SMP MSPs	The 2 MSPs proposed to be designated with SMP arising from this Consultation which are not currently so designated
Unregulated MSP	Any MSP offering MVCT which is not currently designated with SMP
<b>Service Providers</b>	
Existing SMP Service Providers	The 2007 SMP FSPs and the 2012 SMP MSPs
Newly Proposed SMP Service Providers	The Newly Proposed SMP FSPs and the Newly Proposed SMP MSPs
Proposed SMP Service Providers	The Proposed SMP FSPs and the Proposed SMP MSPs
Unregulated Service Provider	Unregulated FSPs and Unregulated MSPs

<sup>37</sup> While the 2012 MVCT Decision designated 6 SMP MSPs, this number fell to 5 in 2014, following the merger of two SMP MSPs, Three and O2.

## Information Sources

- 1.35 As part of this market review, ComReg has obtained qualitative and quantitative information from Service Providers through a series of formal and informal information requests, as well as through industry meetings. ComReg has also reviewed, in detail, the experience of NRAs in regulating Relevant Termination Markets in other jurisdictions and has carefully analysed guidance from the European Commission, BEREC and other relevant commentators before arriving at its preliminary views, as set out in this Consultation.
- 1.36 In conducting its analysis, ComReg has drawn on data from a number of sources, including:
- (a) Consumer and Business Market Research commissioned by ComReg and carried out on its behalf by Red C during 2016 (the '**2016 Market Research**'). This research included attitudinal surveys of retail end users of fixed voice, mobile voice and other related telecommunications services. This research is published with this Consultation in Annex 1;
  - (b) Information provided by Service Providers in response to detailed statutory information requests<sup>38</sup> issued by ComReg in which both quantitative and qualitative information on the Relevant Termination Markets and on other related telecommunications services was sought ('**Statutory Information Requests**' or '**SIR(s)**');
  - (c) Information provided to ComReg in subsequent follow-up correspondence and discussions in relation to (b);
  - (d) Information provided to ComReg by Service Providers for the purpose of ComReg's Quarterly Key Data Report ('**QKDR**');<sup>39</sup> and
  - (e) Other information in the public domain.

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<sup>38</sup> In July 2016 pursuant to its powers under section 13D(1) of the Communications Regulation Act 2002 (as amended), ComReg issued a series of information requests to the following Service Providers: Eircom Ltd, BT Ireland Communications Ltd, Vodafone Ireland Ltd, Verizon Ireland Ltd, Virgin Media Ireland Ltd, PlanNet 21, Airspeed Communications Ltd, Colt Technology Services Ltd, Imagine Telecommunications Ltd, Magnet Networks Ltd, Telcom Ltd, In2com Ltd, Finarea SA, Viatel Ireland Limited, BlueFace, Modeva Networks Ltd, Equant Network Systems Ltd, Dialoga Servicios Interactivos SA, Intellicom Ireland Ltd, Magrathea Telecommunications Ltd, Voxbone SA, Three Ireland Ltd, Meteor Mobile Communications Ltd, Tesco Mobile Ireland Ltd, Lycamobile Ireland Ltd, and Carphone Warehouse Ireland Mobile Ltd.

<sup>39</sup> The most recent ComReg QKDR (Q2 2017) is available online at <https://www.comreg.ie/industry/electronic-communications/market-information/quarterly-key-data-report/>

- 1.37 The 2016 Market Research referred to above was undertaken on behalf of ComReg to inform its FVCT and MVCT market reviews and examine the attitudes of both personal and SME end users to various issues related to the provision of fixed voice, mobile voice and other related electronic communications services. The field work supporting the 2016 Market Research took place in the period July 2016 to September 2016 with the results finalised and provided to ComReg in October 2016.
- 1.38 As part of the 2016 Market Research, 1,000 residential households were surveyed through face-to face interviews<sup>40</sup> and 500 SMEs<sup>41</sup> were surveyed via a computer aided telephone interview ('CATI'), with the person interviewed being the individual responsible for selecting the relevant business's telecommunications providers.
- 1.39 The surveys examined, *inter alia*:
- (a) Importance placed by end users on ownership and usage of particular technologies;
  - (b) Willingness of end users to switch between communications providers and technologies;
  - (c) Attitudes to, and actual reactions to, changing scenarios in the price of telecommunications services;
  - (d) The importance of bundled service offers for residential customers; and
  - (e) The use of OTT and VoIP services.
- 1.40 ComReg refers to the outputs from the 2016 Market Research, along with the other data sources referred to above, throughout the remainder of the analysis in this Consultation.
- 1.41 It should be noted that, rather than being definitive, the 2016 Market Research informs the analysis throughout this Consultation, and its outputs are considered alongside empirical data/evidence, where available, in particular, alongside data presented in the QKDR and in response to Statutory Information Requests.

## Consultation Process

- 1.42 As noted above, the purpose of this Consultation is to set out ComReg's preliminary views on its analysis of the Relevant Termination Markets (including product and geographic definition, competition analysis and remedies, as appropriate).
- 1.43 ComReg invites all interested parties to respond to the questions set out in this Consultation, and to comment on any other aspect of the Consultation.

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<sup>40</sup> See 2016 Consumer Market Research in Annex 1.

<sup>41</sup> See 2016 Business Market Research in Annex 1.

- 1.44 In so doing, respondents are requested to clearly explain the reasoning for their response, indicating the specific relevant paragraph numbers within the Consultation to which their response refers, along with all relevant factual or other evidence supporting views presented. Respondents should submit their views in accordance with the instructions set out on the cover page of this Consultation.
- 1.45 Respondents should also be aware that all non-confidential responses to this Consultation will be published, subject to the provisions of ComReg's guidelines on the treatment of confidential information.<sup>42</sup> **Respondents should ensure that a non-confidential version of their response is provided by the closing date set out below, which clearly sets out which specific text respondents consider to be confidential. Confidential elements of responses must be clearly marked as such, using the following format: [~~text deemed to be confidential~~], and be set out in a separate document which must also be provided to ComReg by the closing date set out below.**
- 1.46 All responses should be sent by post or email to the address below to arrive on or before 17:30 on Wednesday, January 10<sup>th</sup>, 2018. ComReg is providing an 11 week period within which interested parties may respond. Responses received after this date will not be considered. Responses should be marked for the attention of:

Máire FitzGerald  
Commission for Communications Regulation  
1 Dockland Central  
Guild Street  
Dublin 1  
D01 E4X0  
Ph: +353 1 804 9631  
Email: [wholesaleconsult@comreg.ie](mailto:wholesaleconsult@comreg.ie)

- 1.47 In submitting comments, respondents are requested to provide a copy of their submissions in an unprotected electronic format in order to facilitate their subsequent publication by ComReg.

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<sup>42</sup> See ComReg Document 05/24, "Guidelines on the treatment of confidential information", March 2005. <https://www.comreg.ie/csv/downloads/ComReg0524.pdf>



- 1.48 This is a non-confidential version of the Consultation. Certain information within the Consultation has been redacted for reasons of confidentiality and commercial sensitivity, with such redactions indicated by the symbol ☒. Should an individual Service Provider wish to review its own redacted information, it should make a request for such in writing to ComReg (to the person identified above) and indicate the specific paragraph numbers within which the redacted information being requested is contained. ComReg will consider requests for redacted information and will, subject to the protection of commercially sensitive and confidential information, respond accordingly.
- 1.49 It is also important to note that ComReg also intends to publish a Consultation on the revision of both FTRs and MTRs (the ‘Separate Pricing Consultation’) in Q4 2017, and interested readers may also wish to familiarise themselves with the content of that Consultation.

## Structure of the report

- 1.50 The remainder of this Consultation Paper is structured as follows:
- **Section 2** contains an executive summary of the issues, and proposals for regulation of the Relevant Termination Markets.
  - **Section 3** gives an overview of trends and developments in the RFVC and RMVC markets that have occurred since 2013.
  - **Section 4** provides an assessment of the structural and behavioural characteristics of the RFVC and RMVC markets, with a view to informing the subsequent definition and SMP analysis of the Relevant Termination Markets.
  - **Section 5** defines the Relevant FVCT Markets and Relevant MVCT Markets from both a product and a geographic perspective.
  - **Section 6** assesses competition within each of the defined Relevant Termination Markets and considers whether any FSP or MSP operating within such markets holds a position of SMP.
  - **Section 7** sets out the main competition problems that could, absent regulation, occur within the Relevant Termination Markets (and related markets), along with the likely consequential impacts on competition and consumers.
  - **Section 8** sets out proposed regulatory remedies to address competition problems, in the form of obligations that would be imposed on FSPs and MSPs designated with SMP.
  - **Section 9** sets out the Regulatory Impact Assessment (‘RIA’) of the proposed approaches to regulation in the Relevant Termination Markets, respectively.
  - **Section 10** sets out the next steps that will follow the publication of this Consultation.

- **Annex 1** contains the outputs of the 2016 Consumer Market Research and 2016 Business Market Research (together the '**2016 Market Research**'), commissioned by ComReg for the purpose of informing its analysis of the Relevant FVCT Markets.
- **Annex 2** contains the outputs of the 2016 Market Research, commissioned by ComReg for the purpose of informing its analysis of the Relevant MVCT Markets.
- **Annex 3** provides a non-exhaustive overview of key characteristics of retail price plans offered by FSPs and MSPs.
- **Annex 4** provides an analysis of a range of criteria considered other than those set out in Section 4 when assessing whether a FSP or MSP has SMP.
- **Annex 5** sets out a list of key FVCT and MVCT suppliers.
- **Annex 6** sets out the Decision Instrument which specifies, in legal terms, the nature of the regulatory remedies relating to FSPs designated with SMP in the Relevant FVCT Markets, as discussed in Section 6.
- **Annex 7** sets out the Decision Instrument which specifies, in legal terms, the nature of the regulatory remedies relating to MSPs designated with SMP in the Relevant MVCT Markets, as discussed in Section 6.
- **Annex 8** list each of the questions set out in this Consultation and on which views from interested parties are now being sought.
- **Annex 9** contains a glossary of the most frequently used terms used within this Consultation.
- **Annex 10** contains a description of the methodology used to assess the impact of Countervailing Buyer Power ('**CBP**').

## 2 Executive Summary

### Overview

- 2.1 Telephone calls made from one network to another are initiated (or 'originated') on one Service Provider's network and completed (or 'terminated') on another's. While the person making the call (the 'calling party') pays the originating Service Provider for doing so, a separate transaction usually takes place at wholesale level, whereby (in most cases) the terminating Service Provider charges the originating Service Provider for completing the call.
- 2.2 This wholesale interconnection service is known as **wholesale voice call termination ('WVCT')**, and can be subdivided into Fixed Voice Call Termination ('FVCT') in the case of calls delivered to telephones at a fixed location and Mobile Voice Call Termination ('MVCT') in the case of calls delivered to mobile telephones. WVCT allows retail subscribers of the originating Service Provider the ability to call and be connected to retail customers of the recipient Service Provider (the 'called party'). Service Providers can be subdivided into Fixed Service Providers ('FSPs') and Mobile Service Providers ('MSPs'), depending on whether they operate fixed or mobile networks.
- 2.3 In the context of facilitating subscribers' abilities to make calls to subscribers of other networks ('**off-net calls**'), the originating Service Provider pays a wholesale charge to the terminating Service Provider, known as a termination rate. Termination rates levied by MSPs are known as Mobile Termination Rates ('MTRs'), or Fixed Termination Rates ('FTRs') when levied by FSPs. The termination rate allows the terminating Service Provider to recover relevant costs associated with the provision of the WVCT service, which completes the incoming leg of a call to its subscriber.
- 2.4 Seven MSPs are currently active on the retail mobile telephony market, three of whom own mobile networks. The other four MSPs have commercially negotiated Mobile Virtual Network Operator ('MVNO') access to other MSPs' networks. In general, under an MVNO arrangement a Service Provider will rent access to a Mobile Network Operator's ('MNO's') mobile access network, whether in the form of buying volumes of minutes, texts or data or other capacity arrangements. Together, these seven MSPs provide mobile voice services to just under 4.9 million subscriptions in Ireland.

- 2.5 A large number of FSPs are currently active on the retail fixed telephony market, some of which operate their own network infrastructures or switching equipment, and some of which own no infrastructure and operate on a purely resale basis. Only some of these FSPs are involved in the provision of FVCT, having regard to their underlying network infrastructure, including their wholesale network access arrangements.<sup>43</sup>
- 2.6 ComReg is required to review certain electronic communications markets in order to decide whether regulation is appropriate and, if so, what form such regulation should take. The European Commission ('EC') has established that wholesale MVCT and wholesale FVCT markets are, in general, susceptible to *ex ante* regulation and this Consultation presents ComReg's preliminary views on its analysis of the wholesale markets for the provision of both FVCT and MVCT (the '**Relevant FVCT Market(s)**' and the '**Relevant MVCT Market(s)**'; collectively, the '**Relevant Termination Markets**') in the State.
- 2.7 Pursuant to ComReg's previous analysis of the Relevant FVCT Markets, set out in its 2007 FVCT Decision,<sup>44</sup> seven FSPs are currently subject to regulation, namely Eircom, BT, Digiweb, Magnet, Virgin Media, Colt and Verizon. Having regard to developments since the 2007 FVCT Decision and the 2012 FVCT Consultation,<sup>45</sup> ComReg is now carrying out a new analysis to assess whether regulation of FVCT provided by such FSPs continues to be warranted, and whether it needs to be extended, for the first time, to other FSPs operating in a Relevant FVCT Market.

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<sup>43</sup> For example, Eircom is required by regulation to provide a wholesale line rental and calls access service (called 'Single Billing through Wholesale Line Rental' or '**SB-WLR**'). This enables FSPs that do not have sufficient network presence to provide retail line rental/calls services to their subscribers. In these circumstances, when a call is terminated to these SB-WLR based subscribers, it is Eircom that provides the FVCT service and collects the FTR revenues.

<sup>44</sup> ComReg Decision No. D06/07, Market Analysis – Interconnection Market Review Fixed Wholesale Call Termination Services, December 2007 (hereafter, the '**2007 FVCT Decision**').

<sup>45</sup> Market Review Wholesale Voice Call Termination Services Provided at a Fixed Location, ComReg Document No. 12/96. <https://www.comreg.ie/csv/downloads/ComReg1296.pdf> ('**2012 FVCT Consultation**'). As set out in paragraph 1.28 above, ComReg did not proceed to issue a final FVCT Decision, due to uncertainties arising from the Vodafone High Court challenge to ComReg's 2012 MVCT and Pricing Decisions.

- 2.8 Likewise, pursuant to ComReg's previous analysis of the Relevant MVCT Markets, as set out in the 2012 MVCT Decision, five MSPs are currently subject to regulation, namely Three, Tesco Mobile Ireland ('TMI'), Lycamobile, Meteor,<sup>46</sup> and Vodafone.<sup>47</sup> Having regard to developments since 2012, ComReg is now carrying out a new analysis to assess whether regulation of MVCT provided by such MSPs continues to be warranted and whether it needs to be extended, for the first time, to other MSPs.
- 2.9 In carrying out a market review, ComReg follows a three stage process. First, the scope of the markets in question is quantified and defined ('market definition'). As part of this exercise, ComReg commissioned Red C to carry out retail market research, which ComReg then reviewed. Red C interviewed 500 SMEs and over 1,000 personal consumers in July and August 2016 as part of its research brief. Second, ComReg assesses whether any Service Provider possesses Significant Market Power ('SMP') on any of those markets ('competition assessment'). Third, ComReg assesses what harm to competition could result from the potential exercise of market power, having regard to Service Providers' abilities and incentives to engage in anti-competitive behaviour ('competition problems'), and, arising from this, what preventative measures or obligations ('remedies') must be put in place to prevent harm to competition, competitors and, ultimately, consumers.
- 2.10 In respect of **FVCT**, ComReg proposes that the Relevant FVCT Markets are individually defined as:

*"the provision by an FSP of a wholesale FVCT service to other Service Providers from the nearest point to the End User or level on that terminating FSP's network at which incoming voice calls can be handed over for termination to Geographic Numbers,<sup>48</sup> and in respect of which that FSP is able to set the FTR."*

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<sup>46</sup> Meteor announced in July 2017 that its branding would be retired and replaced with Eircom branding from September 2017. Accordingly, all references to 'Meteor' in this document refer to the entity of that name designated with SMP in the 2012 MVCT Decision. All forward-looking references in this Consultation to that entity will refer to 'eir Mobile', following the naming convention described by eircom Holdings (Ireland) Limited in its 2017 Annual Report for Bondholders: "Our Mobile division is comprised of both consumer and eir business mobile. From September 2017, the Meteor brand has been retired; both mobile divisions will operate under the eir Mobile brand going forward." [https://www.eir.ie/opencms/export/.content/pdf/IR/reports/2016\\_2017/quarter4/eir\\_4th\\_quarter\\_and\\_full\\_year\\_results\\_to\\_30\\_June\\_2017\\_annual\\_bond\\_document\\_1.pdf](https://www.eir.ie/opencms/export/.content/pdf/IR/reports/2016_2017/quarter4/eir_4th_quarter_and_full_year_results_to_30_June_2017_annual_bond_document_1.pdf) at p.61.

<sup>47</sup> The 2012 MVCT Decision designated six MSPs with SMP, but one – O2 – subsequently exited the market, following the 2014 Three/O2 merger, leaving five remaining SMP MSPs.

<sup>48</sup> Numbers for use at a fixed location (**Geographic Numbers**) are broadly defined in the 2015 Numbering Conditions of Use (ComReg Document 15/136), as may be amended from time to time. The current definition of a Geographic Number in the Numbering Conditions of Use is a number from the National Numbering Scheme where part of its digit structure contains geographic significance used for routing calls to the physical location of the network termination point (NTP).

2.11 ComReg considers that all 22 FSPs which provide FVCT and control the FTR that is charged constitute separate individual relevant markets for the purposes of this review. ComReg's preliminary views on the competition assessment also shows that each of the 22 FSPs providing such FVCT has SMP in its own FVCT market (together the '**Proposed SMP FSPs**') with these identified in paragraph 2.34 below. Accordingly, ComReg proposes that FSPs which provide FVCT services be subject to regulation. A key aspect of ComReg's regulatory proposals is that the price charged by FSPs for the provision of FVCT be regulated. The precise details of the proposed price control methodology will be set out in the Separate Pricing Consultation.

2.12 In respect of **MVCT**, ComReg proposes that the Relevant MVCT Markets are individually defined as:

*“the provision by a MSP of a wholesale MVCT service to other Service Providers for the purpose of terminating incoming voice calls to mobile numbers, and in respect of which that MSP is able to set the MTR.”*

2.13 ComReg considers that all MSPs which provide MVCT and control the MTR that is charged constitute separate individual relevant markets for the purposes of this review. The competition assessment also shows that each MSP occupies a dominant position in its own MVCT market. Accordingly, ComReg proposes that MSPs which provide MVCT services would be regulated. A key aspect of ComReg's regulatory proposals is that the price charged by MSPs for the provision of MVCT be regulated. The precise details of the proposed price control methodology will also be set out in the Separate Pricing Consultation.

2.14 ComReg's preliminary view is that each of Three, eir Mobile, Lycamobile, TMI, Virgin Media, iD Mobile and Vodafone has SMP in their Relevant MVCT Markets (together the '**Proposed SMP MSPs**').

2.15 ComReg notes the June 2017 statement made in Dixons Carphone plc's preliminary financial results for 2016/2017 that

*“We have made the decision to exit our iD mobile operations in the Republic of Ireland. The iD mobile operations in the Republic of Ireland represent a different business model to the UK, as it is a capacity MVNO with options for expanding its spectrum. This brings with it excellent control, but that comes with upfront costs and increased administration, and we believe the business will flourish faster under dedicated ownership.”<sup>49</sup>*

2.16 While ComReg notes iD Mobile's stated intention to exit operations in the State, ComReg sees no reason to alter its analysis of iD Mobile on the grounds of those stated intentions, and therefore proposes to designate iD Mobile (and its affiliates, assignees or successors) with SMP.

<sup>49</sup>

[http://otp.investis.com/clients/uk/dixons\\_carphone\\_plc/rns/regulatory-story.aspx?cid=1821&newsid=886723](http://otp.investis.com/clients/uk/dixons_carphone_plc/rns/regulatory-story.aspx?cid=1821&newsid=886723)

2.17 Throughout this Consultation, in the interests of consistency, ComReg will refer to the various categories of Service Providers in the following terms:

**Table 2: Service Provider terminology**

<b>FVCT Service Providers</b>	
<b>Name</b>	<b>Description</b>
2007 SMP FSPs	The 7 FSPs designated with SMP in the 2007 FVCT Decision
2007 Alternative SMP FSPs	The 6 FSPs designated with SMP in the 2007 FVCT Decision, excluding Eircom
Proposed SMP FSPs	The 22 FSPs proposed to be designated with SMP arising from this Consultation
Proposed Alternative SMP FSPs	The 21 FSPs proposed to be designated with SMP, excluding Eircom
Newly Proposed SMP FSPs	The 15 FSPs proposed to be designated with SMP which are not currently so designated
Unregulated FSP	Any FSP offering FVCT which is not currently designated with SMP
<b>MVCT Service Providers</b>	
2012 SMP MSPs	The 6 MSPs designated with SMP in the 2012 MVCT Decision <sup>50</sup>
Proposed SMP MSPs	The 7 MSPs proposed to be designated with SMP
Newly Proposed SMP MSPs	The 2 MSPs proposed to be designated with SMP which are not currently so designated
Unregulated MSP	Any MSP offering MVCT which is not currently designated with SMP
<b>Service Providers</b>	
Existing SMP Service Providers	The 2007 SMP FSPs and the 2012 SMP MSPs
Newly Proposed SMP Service Providers	The Newly Proposed SMP FSPs and the Newly Proposed SMP MSPs
Proposed SMP Service Providers	The Proposed SMP FSPs and the Proposed SMP MSPs
Unregulated Service Provider	Unregulated FSPs and Unregulated MSPs

<sup>50</sup> While the 2012 MVCT Decision designated 6 SMP MSPs, this number fell to 5 in 2014, following the merger of two SMP MSPs, Three and O2.

- 2.18 A central competition problem arising in each of the Relevant Termination Markets is the ability and incentive of an SMP Service Provider, by virtue of its market power, to set its termination rates above the level which would otherwise be expected in a competitive market. Having regard to the definitions of the Relevant Termination Markets, at the retail level, due to the Calling Party Pays ('**CPP**') principle, the calling party typically bears the entire cost of the call and the called party incurs no direct cost in doing so. As FTRs and MTRs (together, '**Termination Rate(s)**') feed into the retail costs of making off-net calls, they ultimately feed into the retail prices charged by Service Providers for making off-net calls (or to the entire cost of the service provided).
- 2.19 Because of the CPP principle, the subscriber receiving the call is not typically sensitive to the termination rate set by its Service Provider (as the termination rate is paid for by the originating Service Provider and fed through into charges to its retail subscriber). This called party indifference to termination rates, coupled with excessively priced termination rates may distort competition between Service Providers, as excessive termination rates, depending on relative traffic flows, effectively raise the costs (or reduce the profitability) of rival Service Providers with whom the terminating Service Provider is in competition.
- 2.20 Regulation within the Relevant Termination Markets to address the exercise of SMP by Service Providers includes, for example, imposing price control obligations that seek to ensure termination rates charged by SMP Service Providers are reflective of costs. In this regard, ComReg is required to take utmost account of the European Commission's 2009 recommendation on the appropriate cost methodology to be employed by all NRAs when setting termination rates (the '**2009 Termination Rate Recommendation**').
- 2.21 ComReg has specified in detail in this Consultation the regulatory obligations which it proposes to impose on SMP Service Providers with respect to access, transparency, non-discrimination, price control and – on Eircom alone - cost accounting. The Separate Pricing Consultation is expected to issue in Q4 2017 and will consider, in detail, the further specification of the detailed nature of the cost orientation obligation to be imposed.
- 2.22 The main issues set out in this Consultation, upon which ComReg is now seeking inputs from interested parties, are further summarised below.



## Definition of the Relevant Termination Markets and Competition Assessment

- 2.23 Prior to assessing whether a Service Provider has SMP, ComReg must first define the Relevant Termination Markets. In this regard, ComReg has, as a first step, carried out an assessment of retail markets to examine whether any retail consumer behaviour is likely to indirectly constrain a Service Provider in setting termination rates above the level which would otherwise be expected to obtain in a competitive market. ComReg then moves to analyse the upstream wholesale Relevant Termination Markets to determine whether any wholesale products or services could be considered by a Service Provider as an effective substitute for WVCT, taking account of any demand-side and supply-side considerations.
- 2.24 Having regard to the CPP principle, and a number of other factors, ComReg provisionally concludes that retail consumer behaviour is unlikely to act as an effective constraint on WVCT pricing behaviour.
- 2.25 ComReg considers the key features of WVCT from a technological and numbering perspective, including whether there are any effective substitutes for WVCT, taking account of demand-side and supply-side considerations.
- 2.26 ComReg's preliminary analysis suggests that neither retail nor wholesale constraints are likely to be effective in preventing a Service Provider who supplies WVCT from setting its termination rates above the level which would be expected to obtain in a competitive market.

### Relevant FVCT Markets

- 2.27 Key characteristics of FVCT services include:
- (a) the FSP's control (either through the grant of a right of use by ComReg, or the transfer of that right of use to another authorised undertaking) of the subscriber's fixed number,<sup>51</sup> which is used by the terminating FSP to route the final leg of an inbound call to an end user at a fixed location;
  - (b) interconnection between networks and the FSP's ability to set/control the FTR for inbound calls to fixed telephone numbers; and
  - (c) technological neutrality (i.e. FVCT services for calls to all fixed telephone numbers are included, regardless of whether the underlying technology is wired or wireless).

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<sup>51</sup> As set out in Section 5, and for the purposes of this market review, 'fixed numbers' encompasses Geographic Numbers, 076 numbers, and emergency (112/999) numbers.

2.28 ComReg is of the preliminary view that there are no effective substitutes for such FVCT services within the timeframe of this market review. Technically the appropriate handover point for FVCT at wholesale level is also considered to reflect the final point on the network at which the originating Service Provider can interconnect with the terminating FSP, and beyond which only the terminating FSP can complete the call to the called party.

2.29 ComReg is therefore of the preliminary view that the Relevant FVCT Markets consist of:

*“the provision by a FSP of a wholesale FVCT service to other Service Providers from the nearest point to the End User or level on that terminating FSP’s network at which incoming voice calls can be handed over for termination to Geographic Numbers, and in respect of which that FSP is able to set the FTR.*

*The geographic scope of the Relevant FVCT Market(s) corresponds to the geographic coverage of each individual FSP’s network.”*

2.30 Accordingly, and having considered a range of other factors, ComReg proposes to define 22 separate Relevant FVCT Markets, by reference to characteristics related to the allocation to FSPs of fixed numbers (which are used by subscribers to make calls, and used by FSPs to route the final leg of an inbound call to a subscriber’s fixed line telephone), and the FSP’s ability to set the FTR.

2.31 It is ComReg’s preliminary view that the following 22 separate Relevant FVCT Markets exist:

- (a) Wholesale FVCT supplied by Airspeed Communications Unlimited (“**Airspeed Communications**”);
- (b) Wholesale FVCT supplied by Blue Face Limited (“**Blueface**”);
- (c) Wholesale FVCT supplied by BT Communications Ireland Limited (“**BT Communications**”);
- (d) Wholesale FVCT supplied by Colt Technology Services Limited (“**Colt Technology**”);
- (e) Wholesale FVCT supplied by Dialoga Servicios Interactivos, SA (“**Dialoga Servicios**”);
- (f) Wholesale FVCT supplied by Eircom Limited (“**Eircom**”);
- (g) Wholesale FVCT supplied by Equant Network Services International Limited (“**Equant**”);<sup>52</sup>
- (h) Wholesale FVCT supplied by Finarea SA (“**Finarea**”);
- (i) Wholesale FVCT supplied by Imagine Communications Ireland Limited (“**Imagine**”);
- (j) Wholesale FVCT supplied by In2tel, a business name of In2com Limited (“**In2com**”);

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<sup>52</sup> A subsidiary of Orange Business Services.

- (k) Wholesale FVCT supplied by Intellicom Ireland Limited (“**Intellicom**”);
- (l) Wholesale FVCT supplied by Internet Protocol Telecom Limited (“**IP Telecom**”);
- (m) Wholesale FVCT supplied by Magnet Networks Limited (“**Magnet Networks**”);
- (n) Wholesale FVCT supplied by Magrathea Telecommunications (Ireland) Limited (“**Magrathea**”);
- (o) Wholesale FVCT supplied by Modeva Networks Unlimited (“**Modeva Networks**”);
- (p) Wholesale FVCT supplied by PlanNet 21 Communications Limited (or, for the avoidance of doubt, its 100% owned subsidiary, 3Play Plus Limited) (“**PlanNet21 Communications**”);
- (q) Wholesale FVCT supplied by Telcom Limited (“**Telcom**”);
- (r) Wholesale FVCT supplied by Verizon Ireland Limited (“**Verizon**”);
- (s) Wholesale FVCT supplied by Viatel Ireland Limited (“**Viatel**”);
- (t) Wholesale FVCT supplied by Virgin Media Ireland Limited (“**Virgin Media**”);
- (u) Wholesale FVCT supplied by Vodafone Ireland Limited (“**Vodafone**”); and
- (v) Wholesale FVCT supplied by Voxbone SA (“**Voxbone**”).

2.32 It is recognised that additional FSPs could start supplying FVCT over the lifetime of this market review. ComReg proposes to monitor and consider such developments on a case-by-case basis. In doing so, ComReg proposes to rely substantively on the current detailed assessment in this Consultation to determine whether the services provided by any new-entrant FVCT supplier constitute a Relevant FVCT Market, whether such an FSP has SMP, and if it would be appropriate to impose similar regulatory obligations on it.

2.33 ComReg has assessed whether each of the FSPs operating within the above separate Relevant FVCT Markets has SMP, that is, the ability to behave, to an appreciable extent, independently of its competitors, customers and consumers. Having considered existing competition, the potential for competition to emerge over the next two years, along with other factors (such as FSPs’ FTR pricing behaviour and the strength of any Service Provider’s buyer power in its FVCT negotiations with FSPs), it is ComReg’s preliminary view that each of the Relevant MVCT Markets is not effectively competitive. Consequently, ComReg proposes to designate each of the FSPs operating within each Relevant FVCT Market as having SMP.

## Relevant MVCT Markets

- 2.34 Key characteristics of MVCT services include:
- (a) the MSP's control (either through the grant of a right of use by ComReg, or the transfer of that right of use to another authorised undertaking) of the subscriber's mobile number, which is used by the terminating MSP to route the final leg of an inbound call to an end user;
  - (b) interconnection between networks and the MSP's ability to set/control the MTR for inbound calls to mobile numbers; and
  - (c) technological neutrality (i.e. MVCT services for calls to all mobile numbers are included, regardless of whether the underlying technology is wired or wireless).
- 2.35 ComReg is of the preliminary view that there are no effective substitutes for such MVCT services within the timeframe of this market review.
- 2.36 ComReg is of the preliminary view that the Relevant MVCT Markets consist of:
- “the provision by a MSP of a wholesale MVCT service to other Service Providers for the purpose of terminating incoming voice calls to mobile numbers, and in respect of which that MSP is able to set the MTR.*
- The geographic scope of the Relevant MVCT Market(s) corresponds to the geographic coverage of each individual MSP's network.”*
- 2.37 Accordingly, and having considered a range of other factors, ComReg proposes to define seven separate Relevant MVCT Markets, by reference to characteristics related to the allocation to MSPs of mobile numbers (which are used by subscribers to make calls, and used by MSPs to route the final leg of an inbound call to a subscriber's mobile), and the MSP's ability to set the MTR.
- 2.38 It is ComReg's preliminary view that the following separate Relevant MVCT Markets exist:
- (a) Wholesale MVCT supplied by eir Mobile, a business name of eircom Limited;
  - (b) Wholesale MVCT supplied by iD Mobile;
  - (c) Wholesale MVCT supplied by Lycamobile Ireland;
  - (d) Wholesale MVCT supplied by Tesco Mobile Ireland;
  - (e) Wholesale MVCT supplied by Three Ireland;
  - (f) Wholesale MVCT supplied by Virgin Media Ireland; and
  - (g) Wholesale MVCT supplied by Vodafone Ireland.

- 2.39 It is worth noting that, since the 2012 MVCT Decision, one SMP MSP (O2) has exited the market, while two MVNOs (Virgin Media and iD Mobile) have entered the market. Given the definition of the Relevant MVCT Markets, other MSPs (such as Postmobile or Blueface) do not constitute a Relevant MVCT Market, given that they do not charge, nor do they currently have the ability to set, an MTR (although their host network may do so). However, were they (or new entrant MSPs) to do so, then ComReg considers that there is a strong case to be made that such providers would each constitute a defined Relevant MVCT Market in their own right.
- 2.40 ComReg has assessed whether each of the MSPs operating within the above separate Relevant MVCT Markets has SMP, that is, the ability to behave, to an appreciable extent, independently of its competitors, customers and consumers. Having considered existing competition, the potential for competition to emerge over the next two years, along with other factors (such as MSPs' MTR pricing behaviour and the strength of any Service Provider's buyer power in its MVCT negotiations with MSPs), it is ComReg's preliminary view that each of the Relevant MVCT Markets is not effectively competitive. Consequently, ComReg proposes to designate each of the MSPs operating within each Relevant MVCT Market as having SMP.

## **Imposition of Regulatory Obligations on Service Providers designated with SMP**

- 2.41 Competition problems could, absent regulation, arise in the Relevant Termination Markets due, *inter alia*, to the ability and incentives of an SMP Service Provider, having regard to its market power, to set its termination rates above the competitive level. Termination rates ultimately feed into the cost of making calls and thus impact on consumers. Where termination rates are set above efficient cost, financial and competitive imbalances between Service Providers can also result. Such distortions imply that consumers as a group ultimately pay more in terms of reduced competition, lower innovation and higher prices.
- 2.42 To mitigate identified potential competition problems that could arise from the exercise of market power by SMP Service Providers, ComReg has proposed that a range of proportionate *ex ante* regulatory remedies should be imposed to ensure the development of effective competition amongst Service Providers, to the ultimate benefit of consumers.
- 2.43 The Separate Pricing Consultation Paper, which is due to be published in Q4 2017, sets out the detailed nature and implementation of the proposed price control obligations which ComReg proposes to impose on SMP Service Providers, having regard to the 2009 Termination Rates Recommendation.

## Proposed SMP FSPs

2.44 To mitigate identified potential competition problems that could arise from the exercise of market power by SMP FSPs, ComReg has proposed ex ante regulatory remedies to ensure effective and efficient access to FVCT to the benefit of competition and, ultimately, consumers. In this regard, ComReg proposes to apply regulatory obligations as follows:

### All 22 SMP FSPs (including Eircom):

- (a) **Transparency Obligations:** in addition to a general transparency obligation, each SMP FSP shall be required to make publicly available and keep updated on its website a Reference Interconnect Offer ('RIO') and to make FTRs publicly available and publish such FTRs in an easily accessible manner on its website.
- (b) **Non-Discrimination Obligations:** which include requirements to ensure that equivalent conditions are applied, including in respect of FTRs or other charges, in equivalent circumstances to other undertakings requesting or being provided with access to FVCT and associated facilities; and requirements to ensure that such access and information are provided to all other undertakings under the same conditions and of the same quality as the SMP FSP provides to itself or to its subsidiaries, affiliates or partners.
- (c) **Access Obligations:** which include a requirement to provide access to FVCT and associated facilities; requirement to negotiate in good faith; requirement not to withdraw access to facilities already granted; requirement to grant open access to technical interfaces, protocols and other key technologies; and requirements governing fairness, reasonableness and timeliness of access.
- (d) **Price Control Obligations:** a price control obligation of cost orientation is proposed for all SMP FSPs.

2.45 The ability of FSPs to distort competition in related markets by virtue of their SMP in FVCT (via leveraging behaviour) was also identified. In particular, Eircom's integrated position across related markets implies that it has a strong ability and incentive to use its market power in FVCT to distort competition and raise barriers to entry at various levels of the supply chain (e.g. in wholesale and retail voice markets).

### Eircom only:

- (a) **Transparency Obligations:** requirements to publish detailed documentation on all terms (other than price), conditions, SLAs, guarantees and other product-related assurances associated with its provision of FVCT within its Wholesale SV Services;
- (b) **Access Obligations:** it is proposed to expressly require Eircom to provide access to Interconnection Paths as an associated facility in view of its ubiquitous network coverage; and
- (c) **Price control Obligations:** requirements relating to cost accounting.

## Proposed SMP MSPs

- 2.46 In order to promote regulatory certainty and predictability, and to ensure a continued non-discriminatory approach to regulation, ComReg considers it justified to impose the same obligations on all SMP MSPs. ComReg accordingly proposes to impose the following obligations on SMP MSPs:
- (a) **Transparency Obligations:** requirements to publish a Reference Interconnect Offer setting out the contractual terms and conditions and technical basis upon which Service Providers can obtain access to MVCT and associated facilities; requirements to publish MTRs and provide advance notice of changes to them.
  - (b) **Non-Discrimination Obligations:** requirements to ensure that access (including access to MVCT and associated facilities) and information are provided to all other undertakings under the same conditions and of the same quality as the SMP MSP provides to itself or to its subsidiaries, affiliates or partners, and requirements to ensure that other Service Providers being provided with MVCT are not treated differently with respect to the level of MTRs charged, the quality of service provided and the provision of information concerning MVCT.
  - (c) **Access Obligations:** the requirement to provide access to MVCT and associated facilities, and to do so in a fair, reasonable and timely manner; the requirement to negotiate in good faith with Service Providers requesting access to MVCT; the requirement not to withdraw access to facilities already granted; and the requirement to grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services or virtual network services.
  - (d) **Price Control:** requirements that MTRs are cost oriented, with the detailed nature of the specific costing methodology adopted in light of the cost orientation obligation to be set out in the Separate Pricing Consultation.
- 2.47 ComReg has also given consideration to other potential obligations relating to maintenance of cost accounting systems and separated accounts and considers that such remedies are not, at this time, warranted, largely having regard to proportionality grounds and given that the remedies proposed above should, if applied, address the relevant competition and other concerns.
- 2.48 Further to the Regulatory Impact Assessment ('**RIA**') set out in this Consultation, ComReg is of the preliminary view that the remedies specified above in respect of both SMP FSPs and SMP MSPs are appropriate, proportionate and justified in light of the market analysis and the identified competition problems.
- 2.49 Having considered responses to this Consultation Paper, and consulted as appropriate with the Competition and Consumer Protection Commission and the European Commission, ComReg expects to reach its final decision on all the matters set out herein in mid-2018.

## 3 Retail Fixed Voice and Mobile Voice Market Trends

- 3.1 This Section presents the main behavioural trends in the RFVC and RMVC markets.<sup>53</sup> Market trends over the period 2013-2017 are included in this Section, as this is the time period since the last consultation on the wholesale MVCT and FVCT markets.

### Relationship between Wholesale Termination Markets and Retail Markets

- 3.2 The demand for both FVCT and MVCT services (collectively, 'WVCT services') is derived from consumer demand for retail voice services. Therefore, before assessing the strength of any competitive constraints arising from retail voice services on WVCT services, this Consultation reviews trends in the supply of both RFVC and RMVC services in the State since the last market reviews.
- 3.3 The provision of WVCT is necessary for retail customers of both MSPs and FSPs, since WVCT services enable calls to connect and then terminate on traditional fixed and mobile voice platforms, irrespective of which (fixed or mobile) network they are calling from. A wholesale termination fee is levied by the terminating Service Provider on the originating Service Provider to terminate a call.
- 3.4 The cost of wholesale termination services, if passed on to consumers via an increase in retail prices, can impact on demand for traditional fixed and mobile voice services. ComReg therefore assesses whether consumers may therefore seek to avoid the retail charges associated with FTR or MTR pass-through by not making a traditional fixed or mobile voice call, reducing the length of the call, or making contact with the other party via an alternative means of communication and, if so, whether this is likely to discipline Service Providers offering WVCT services.

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<sup>53</sup> The purpose of this section is to set out high-level retail trends only. Any references to market shares or market preferences should not be taken as necessarily representing ComReg's view as to the particular scope/definition of any retail market(s).



## Structure of the Retail Fixed Voice Market

3.5 The RFVC market in Ireland has several active suppliers who provide voice telephony services at a fixed location. These suppliers differ in their size, technological platforms and geographical coverage. Broadly, for the purposes of this discussion, FSPs fall into one of three categories, based on the extent of their own network coverage:<sup>54</sup>

- (a) **Independent FSPs:** these FSPs provide voice call services at a fixed location, predominantly using their own network and infrastructure. They are not typically reliant on wholesale inputs from other FSPs, except when they require a WVCT service on behalf of their retail customers calling a different network. Eircom and Virgin Media are two examples of independent FSPs.
- (b) **Partially Independent FSPs:** these FSPs operate a physical telephone/data switching platform and potentially other infrastructure, but also rely (to varying degrees) on third-party wholesale network access to originate and/or terminate calls to and from their retail customers' premises. The extent of these providers' networks greatly varies. BT Ireland, Vodafone, Viatel, Imagine and Magnet Networks are some examples of partially independent FSPs.
- (c) **FSPs with resale activities:** these FSPs operate retail fixed voice activities which, usually, do not involve use of their own physical network. In some instances, these FSPs may also be regarded as partially independent FSPs. When acting in a resale capacity these FSPs purchase wholesale end-to-end voice call services from a third-party network operator and resell/repackage that service in the form of a retail market offer. Sky Ireland and Pure Telecom are two examples of FSPs with resale activities.

## FVCT Providers

3.6 **Eir** (a business name of Eircom), an independent FSP, is currently the largest provider of retail voice services at a fixed location in Ireland. It owns and operates a ubiquitous Public Switched Telephone Network ('PSTN')<sup>55</sup> which it uses to provide retail voice calls at a fixed location, along with various other services to its business and residential customers. Eircom had approximately a 39.3% market share of retail fixed voice subscribers as of Q1 2017 and its traffic accounted for [3<■■■■%] of total retail call traffic volumes as of Q1 2017, which had declined from approximately [3<■■■■%] in Q4 2012.<sup>56</sup>

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<sup>54</sup> The list of FSPs in this section is not intended as an exhaustive list of all active suppliers of retail voice services in Ireland at present, but rather as illustrative examples.

<sup>55</sup> PSTN refers to the international copper wire-based telephone system which carries analog voice data.

<sup>56</sup> ComReg QKDR, Q2 2017, ComReg Document 50/17, page 20.

- 3.7 Eircom has also traditionally been the predominant supplier of wholesale Fixed Access Call Origination (**'FACO'**) and Transit services to Service Providers which do not possess a comprehensive network for the provision of retail voice services at a fixed location. ComReg published its Wholesale Fixed Voice Call Origination and Transit Market<sup>57</sup> decision paper in 2015 (the **'2015 FACO and Transit Decision'**). In the 2015 FACO and Transit Decision, the transit market was deregulated, while the FACO market continued to be regulated.
- 3.8 Eircom also offers a wholesale Switchless Voice (**'SV'**) service which allows Service Providers to provide retail voice services at a fixed location, effectively becoming FSPs without the need to invest in their own interconnection infrastructure. This wholesale SV service, known as 'White Label' voice, allows FSPs to purchase end-to-end wholesale voice services. Eircom terminates these calls on behalf of FSPs who purchase White Label voice on its network.<sup>58</sup>
- 3.9 While Eircom's market shares have declined gradually over the past number of years in the presence of regulation, its retail narrowband revenue market share remains steady.<sup>59</sup>
- 3.10 Liberty Global plc trading as UPC completed its acquisition of **Virgin Media UK** in 2013 and in 2016 rebranded UPC to Virgin Media. Virgin Media has upgraded its network and provides broadband services to approximately 365,000<sup>60</sup> premises, all of which are also capable of receiving voice services. Virgin Media also provides RMVC services via an MVNO arrangement with Three, as discussed in greater detail below.<sup>61</sup>
- 3.11 **Vodafone Ireland**, a partially independent FSP, mainly uses third-party networks to originate, transit and terminate voice calls to and from end users at a fixed location on its behalf.

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<sup>57</sup> ComReg Decision 05/15, Wholesale Fixed Voice Call Origination and Transit Markets Response to Consultation and Decision, (the **'2015 FACO and Transit Decision'**),

<sup>58</sup> Certain components of the underlying wholesale inputs to the wholesale Switchless Voice service are currently not regulated, notably wholesale Call Transit. The FVCT component is the subject of this review.

<sup>59</sup> Eircom's VoB subscriptions make up [redacted] of all Voice subscriptions (i.e. PSTN voice = [redacted] of voice subs). The market share based on voice **subscriptions** (the metric presented in the QKDR) is continuously falling Quarter-on-Quarter. PSTN narrowband market share based on **revenue**, however, can be said to be generally steady (61% in Q1 '17, 60% in Q3 16, 57% in Q1 '16).

<sup>60</sup> As of Q1 2017 approximately 365,000 premises had a (standalone or bundled) broadband subscription. Similarly [redacted] had (standalone or bundled) fixed voice. The number of subscriptions that had at least both broadband and voice (as part of double, triple or quad play) was [redacted].

<sup>61</sup> At paragraphs 3.74 to 3.77 below.

- 3.12 Since the 2012 FVCT Consultation, Sky Ireland (**'Sky'**) has expanded into other telecommunications markets, offering voice and broadband alongside its TV services. Sky purchases wholesale end-to-end voice call services from BT Ireland. As of Q1 2017 Sky Ireland had an 11.6% market share in the RFVC market, as measured by number of retail subscriptions. Sky is classified as a resale-based FSP.
- 3.13 Like Sky, **Pure Telecom** is classified as a resale-based FSP. Pure Telecom provides fixed line, broadband and cloud telecoms services. Pure Telecom mainly uses third-parties to originate, transit, and terminate voice calls to and from end users at a fixed location on its behalf. It accesses these third-party networks by purchasing wholesale voice services.

## Fixed Wireless Access

- 3.14 Voice services at a fixed location may also be provided by means of Fixed Wireless Access (**'FWA'**). In essence, FWA delivers voice services wirelessly via equipment located on nearby masts or towers and presented as a 'fixed' telephony service at the end user's premises. ComReg's QKDR data indicate that there were 47,452 FWA subscriptions in Q1 2017, representing a decline of 28% from 65,668 in Q4 2012.
- 3.15 **Imagine** is a partially independent FSP operating a FWA network which provides broadband coverage in predominantly rural areas in 24 counties via WiMax and Fixed LTE. WiMax is a fixed wireless technology which provides consumers with high speed broadband and voice. Imagine continues to develop its FWA services and network capability in rural areas around Ireland.
- 3.16 Digiweb is also a partially independent FSP. Founded in 1997, it merged with **Viatel** in 2013. Digiweb operates a national wireless network and satellite services. It provides broadband access, fixed-line and mobile products and services to residential, business and public sector customers.
- 3.17 Having described in general terms the structure of the retail supply of voice services at a fixed location, including the suppliers of such services, paragraphs 3.19 to 3.43 describe the headline trends and developments in respect of the provision of retail voice calls focussing on fixed voice.

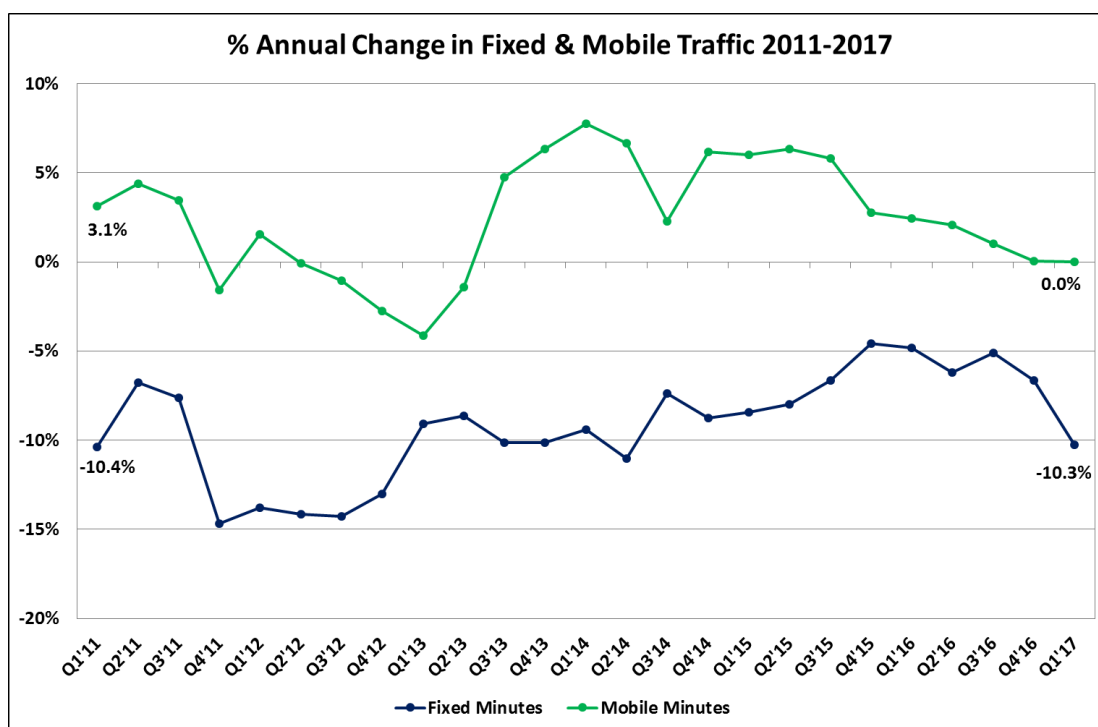
## Behavioural Trends in the Retail Fixed Voice Market

3.18 In this sub-section, ComReg identifies and discusses key behavioural trends in the Retail Fixed Voice Market. A decline in fixed retail voice traffic and revenue has been evident, and is outlined as part of the analysis in paragraphs 3.19 to 3.23. Developments in VoIP and standalone Broadband (SABB) are outlined in sections 3.25 to 3.31. Key trends from Market Research carried out in 2016 highlight trends in Packages and Bundles, including spend and types of bundles purchased. The section concludes with preliminary conclusions on the retail trends in relation to fixed voice.

### A persistent decline in fixed retail voice traffic

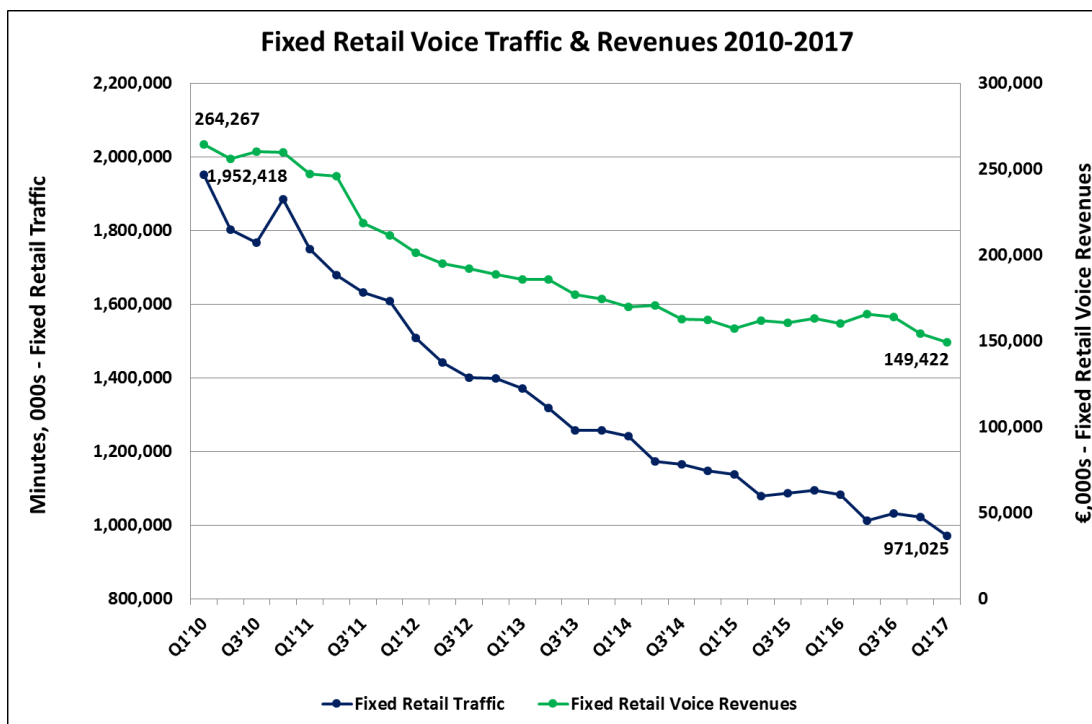
3.19 There has been a steady decline in fixed voice retail traffic and revenues since 2012. Fixed retail voice traffic has fallen from 1.51 billion minutes in Q1 2012 to 0.97 billion minutes in Q1 2017, a 35.6% reduction.

**Figure 3: % Annual Change in Fixed & Mobile Traffic, 2011-2017**



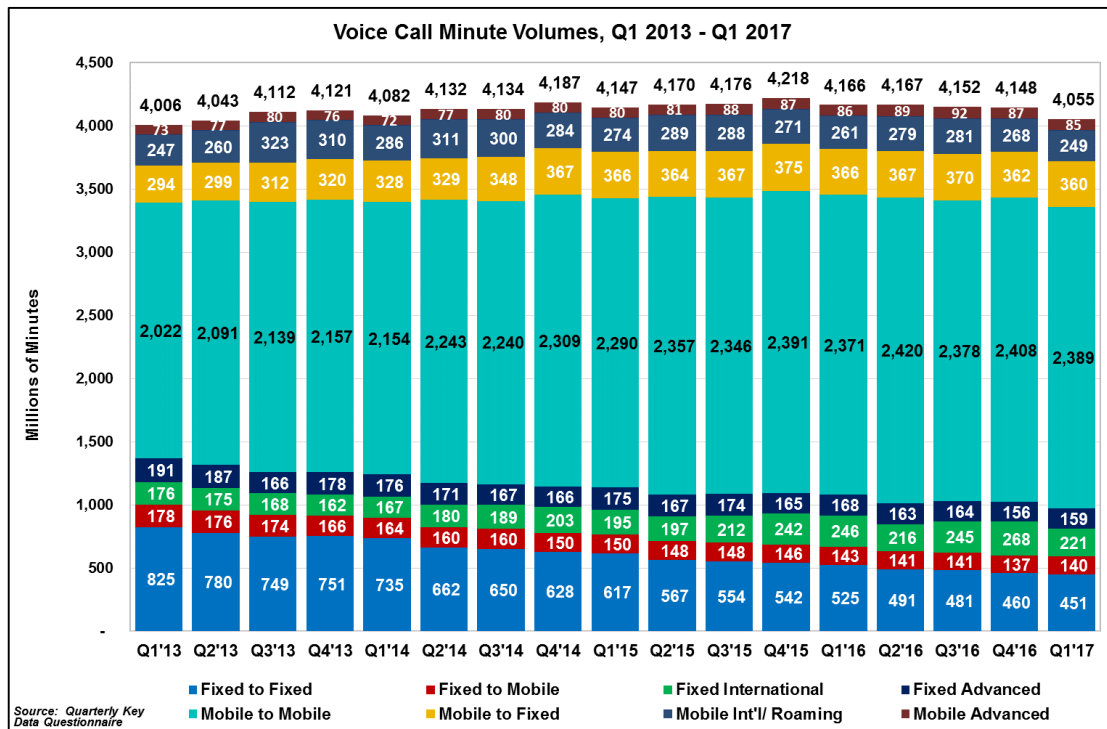
3.20 The decline across both retail fixed voice traffic volumes and revenues is shown in Figure 4, which shows that, from Q1 2010 to Q1 2017, revenues attributable to voice traffic have fallen by 43%, while traffic has fallen by 50%.

**Figure 4: % Fixed Retail Voice Traffic & Revenues, 2010-2017**



3.21 Figure 5 shows fixed and mobile voice call volumes, and subcategories within both. Over the period Q1 2013 to Q1 2017 the main changes are decreases in fixed-to-fixed minutes (down 45% from Q1 2013 to Q1 2017) and increases in mobile-to-mobile minutes (up 18% over the same period). Total voice call volumes for fixed and voice increased by 1% from Q1 2013 to Q1 2017.

Figure 5: Fixed & Mobile Voice Call Minute Volumes, Q1 2013 – Q1 2017

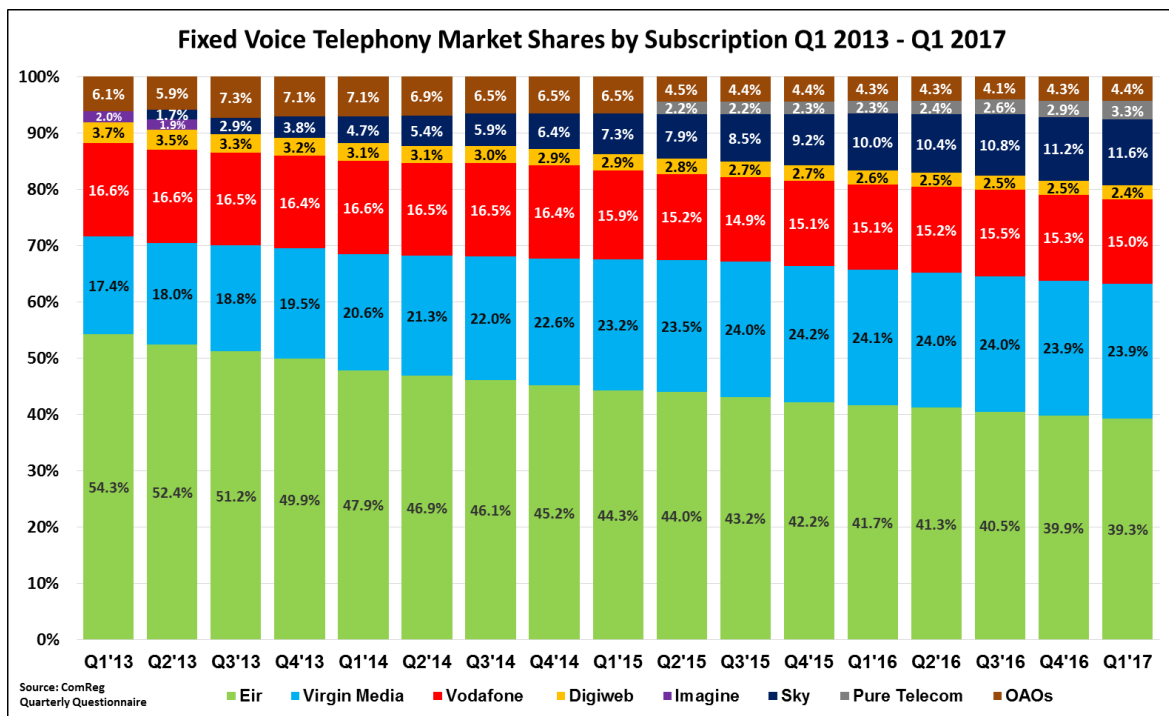


Source: Eircom ComReg QKDR, Q1 2013 to Q1 2017

3.22 Market shares by subscription are presented in Figure 6 from Q1 2013 to Q1 2017. Over this period Eircom’s share has fallen from 54.3% to 39.3% while Virgin Media increased its share from 17.4% to 23.9%. Vodafone is largely unchanged while Sky has increased quarter on quarter to hold an 11.6% share as of Q1 2017. Other changes over this period include a decrease in market shares for Digiweb and an increase for Pure Telecom. The share for Other Authorised Operators (**‘OAOs’**)<sup>62</sup> overall has decreased.

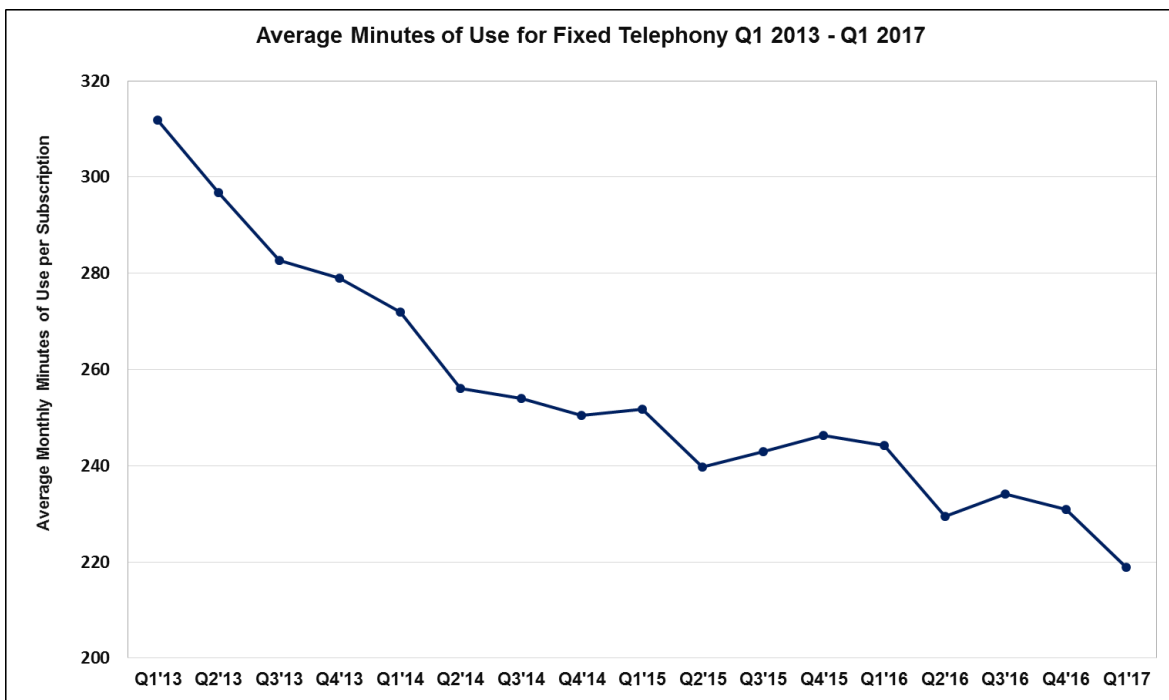
<sup>62</sup> The OAO category consists of the aggregate share of operators who individually have a market share less of than 2%. In Q2 2015 Pure Telecom’s market share exceeded 2%, and it was therefore extracted from the OAO category.

**Figure 6: Fixed Voice Telephony Market Shares, Q1 2013 – Q1 2017**



3.23 Figure 7 shows the average minutes of use per subscription for fixed telephony in Ireland. Average usage has declined by 26% from 312 minutes in Q1 2013 down to 219 minutes in Q1 2017.

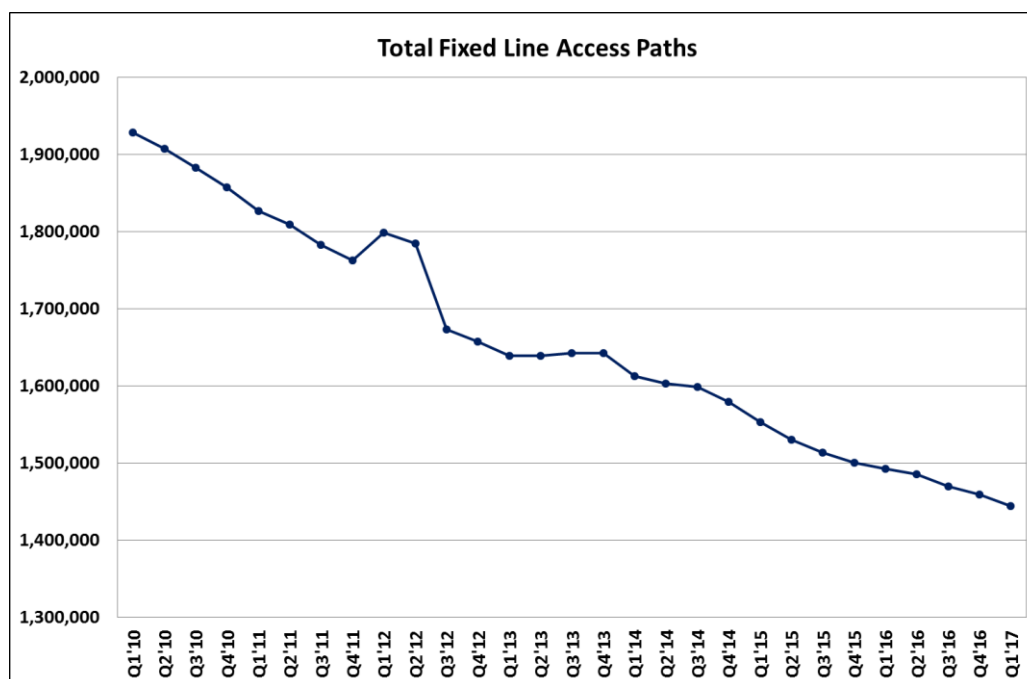
**Figure 7: Average Minutes of Fixed Telephony Use, Q1 2013 – Q1 2017**



## Fixed line ownership

3.24 Based on information from ComReg's QKDR Q2 2017, Figure 8 below shows that Eircom's<sup>63</sup> total fixed access paths (direct and indirect PSTN and ISDN), which are usually used for voice services and, additionally, internet access, have declined by 25.1% since Q1 2010 and stood at 1.44m in Q1 2017.

**Figure 8: Eircom fixed line access paths, Q1 2010 – Q1 2017**



## Developments in VoIP - Voice over Internet Protocol

3.25 Demand for and developments in VoIP (Voice over Internet Protocol)<sup>64</sup> services in the Irish market has increased since 2012. VoIP is considered under the following 3 categories; Managed, Partially Managed and Unmanaged VoIP, which are defined in detail below. In addition to changes in VoIP services, it is also important to consider how Standalone Broadband ('SABB') services may contribute to changes in behaviour, enabling a potential move away from traditional voice services.

<sup>63</sup> Taking Eircom as an indicative proxy for fixed line ownership generally,

<sup>64</sup> VoIP delivers a telephone service over the Internet, rather than over the legacy PSTN. The term Voice over Broadband, or VoB, is frequently used interchangeably with VoIP.



## Standalone Broadband (SABB)

3.26 A SABB service is a broadband service without a traditional PSTN-based<sup>65</sup> fixed telephony service. In other words, only a standalone broadband service is provided to the subscriber [https://en.wikipedia.org/wiki/Local\\_loop](https://en.wikipedia.org/wiki/Local_loop). SABB services consist of a data-only service where a customer requires broadband access, but does not require a PSTN service. Demand for SABB services is increasing, and Service Provider including Eircom,<sup>66</sup> Vodafone<sup>67</sup> and Virgin Media<sup>68</sup> offer SABB services with no home phone. These changes are enabling a move away from PSTN-based telephony services, and fixed voice services are increasingly being carried over IP technology (although this still remains at a low base). For the avoidance of doubt, SABB is a DSL line without a dial tone, and VoIP is a voice service carried over that line.

## VoIP Categories

### Managed VoIP Service Providers

3.27 There are a number of Managed VoIP service providers in Ireland, including Virgin Media, Magnet, and Digiweb. These 'Managed VoIP' providers predominantly use their own network and infrastructure to provide VoIP services and manage the access path for end users. The majority of Managed VoIP services are provided over cable and fibre networks to the end user. Many managed VoIP subscriptions (i.e. Virgin Media) are provided over cable and fibre networks as part of a bundle, i.e. broadband and television services.

3.28 Managed VoIP Service Providers typically have an allocation of Geographic or 076 number ranges from ComReg and they may also provide FVCT services.

### Partially-managed VoIP Service Providers

3.29 Partially-managed VoIP differs from Managed VoIP, as the Service Provider only controls part of the infrastructure that is being used to provide the service. A partially-managed VoIP service may, for example, involve customers having an existing broadband connection supplied by a third-party but using a separate VoIP Service Provider that has its own switch and associated interconnects, meaning that it can manage that part of the service directly.

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<sup>65</sup> Public Switched Telephone Network.

<sup>66</sup> <https://www.eir.ie/broadband-only>

<sup>67</sup> <http://www.vodafone.ie/home/broadband>

<sup>68</sup> <https://www.virginmedia.ie/naked-broadband-only-deal/>

- 3.30 These partially-managed VoIP providers typically have numbers that are hosted by, and assigned to, another Service Provider, for example Eircom or Virgin Media, which terminates calls on behalf of the VoIP service provider, and sets the associated FTRs. However, some of these VoIP providers have been assigned various number ranges (geographic, non-geographic, and 076 numbers, and SMS codes) by ComReg.<sup>69</sup>

### **Unmanaged VoIP Service Providers**

- 3.31 The emergence of SABB may enable growth of unmanaged VoIP, particularly offered by OTT providers. 2016 Market Research indicated that 61%<sup>70</sup> of households with a fixed broadband service in their home claimed to have used unmanaged VoIP services for voice and video calls.
- 3.32 Unmanaged VoIP services are web-based VoIP services accessed via a personal computer, laptop, smartphone or tablet in order to communicate with other users of the service on a compatible device. Unmanaged VoIP service providers include Skype, Viber and WhatsApp, for example. Research carried out on behalf of ComReg indicates that regular usage of OTT apps for voice and video calls is 72%<sup>71</sup> in Dublin. This figure rises to 82% among the 18-35 years age bracket. Unmanaged VoIP-to-VoIP calls are typically free, but unmanaged VoIP calls to fixed or mobile numbers typically incur a charge.

## **Further key insights from 2016 residential consumer Market Research carried out on behalf of ComReg**

- 3.33 Among survey respondents that do not use OTT apps for voice/video calls, the main barrier to OTT usage is preference; 59% of respondents<sup>72</sup> indicated that they prefer standard mobile calls, while 32% prefer calling from their landline.
- 3.34 In terms of those respondents using OTT apps for calls, the principal driver for doing so is price, with 51%<sup>73</sup> saying that international phone calls are too expensive and 37% saying local/national calls are too expensive. Improved technology also plays a role, with 37% of respondents stating this as a reason.

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<sup>69</sup> As set out at <https://www.comreg.ie/industry/licensing/numbering/number-assignments-availability/>

<sup>70</sup> 2016 Consumer FVCT Market Research, slide 32

<sup>71</sup> 2016 Consumer FVCT Market Research, slide 36

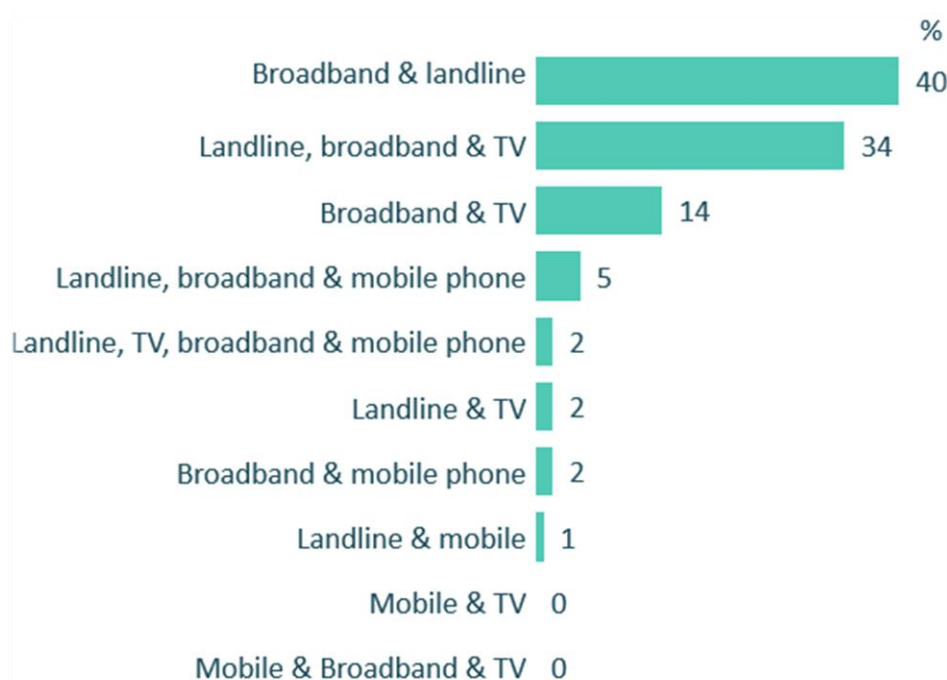
<sup>72</sup> Ibid.

<sup>73</sup> 2016 Consumer FVCT Market Research, slide 39

## Types of package or bundle purchased by consumers

3.35 According to the 2016 Consumer FVCT Market Research, 58% of the total sample purchased products as a bundle, with respondents living in Dublin having higher incidences of bundle purchase (82%). Broadband and Landline bundles are the most common combination (40%),<sup>74</sup> particularly in rural areas (60%). 42% of respondents said they had not bought a bundle.

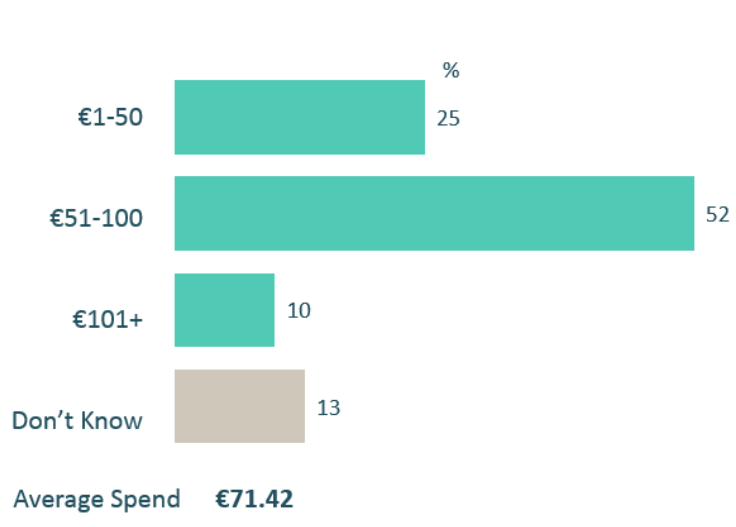
**Figure 9: Total bundle types purchased by consumers**



3.36 Over half (52%)<sup>75</sup> of bundle owners surveyed spend between €51- €100 per month on their package.

<sup>74</sup> Ibid.

<sup>75</sup> 2016 Consumer FVCT Market Research, slide 55

**Figure 10: Amount spent per month on bundles by consumers**

- 3.37 Over half (52%)<sup>76</sup> of bundle purchasers in the survey have availed of the bundle for more than three years. The average length of tenure amongst those questioned is three years and four months.
- 3.38 As part of the 2016 market research, SME respondents were presented with a series of reasons as to why they purchased voice services as part of a bundle.
- 55%<sup>77</sup> of SMEs in the survey with fixed line phone services purchase this service as part of a bundle;
  - Fixed Voice bundles held by the businesses in the survey are most likely bundled with fixed broadband (85%)<sup>78</sup> followed by mobile telephony at 26%; and
  - 23%<sup>79</sup> of SMEs in the survey purchasing fixed line services as part of a bundle report purchasing mobile phone services outside of the bundle.

## Preliminary conclusions on retail trends in relation to fixed voice

- 3.39 Further to the above assessment of retail trends in the provision of retail voice services since the 2012 FVCT Consultation, ComReg is of the preliminary view that a number of key trends may be observed.

<sup>76</sup> 2016 Consumer FVCT Market Research, slide 56.

<sup>77</sup> 2016 Business FVCT Market Research, slide 37.

<sup>78</sup> 2016 Business FVCT Market Research, slide 38.

<sup>79</sup> 2016 Business FVCT Market Research, slide 39.

- 3.40 While the number of retail FSP participants has increased, a gradual decline in retail voice traffic and subscriptions at a fixed location is evident. From Q4 2014 to Q1 2017 fixed voice subscriptions decreased by 4.3% for business subscriptions and 2.9% for residential subscriptions. However, as indicated in ComReg's Quarterly Key Data Report, a majority of households (73%) continue to have retail voice connections at a fixed location for Q1 2017.
- 3.41 Bundles are a popular choice for the consumer. As of Q1 2017 the proportion of customers using services within bundles (double, triple or quadruple) was 62.9%, compared to 47.4% in Q4 2012.
- 3.42 Developments in IP technology have enabled existing Services Providers to offer multiple propositions, and move towards convergence, with the barriers between separate markets and a number of separate service providers being slowly eroded:
- (a) VoIP subscriptions have continued to increase and many Service Providers are now offering VoIP services,
  - (b) Managed VoIP providers are continuing to provide services, particularly with bundled services over cable and fibre networks e.g. Virgin Media,
  - (c) Through innovation and development traditional Service Providers are responding to market changes and are retaining market share, resulting in the emergence of new services e.g. WiFi calling,
  - (d) Service Providers (e.g. Eircom and Vodafone) are moving towards IP-based infrastructure, with ComReg having issued a consultation on the transition from Eircom's copper network to a fibre access network or networks,<sup>80</sup> and
  - (e) MSPs such as Vodafone continue to be active in the provision of retail voice service at a fixed location using both wholesale inputs from other MSPs as well as mobile technology to deliver fixed services.
- 3.43 WiFi calling, and VoB appear to be emerging trends in the RFVC. A number of Operators offer VoB services.<sup>81</sup> Eircom is the first Irish network to roll out WiFi calling<sup>82</sup> services, and this marks another step towards the introduction of VoLTE (Voice over Long Term Evolution).

## Structure of the Retail Mobile Voice Market

- 3.44 This section describes the main developments in the retail mobile market since the 2012 MVCT Decision.

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<sup>80</sup> ComReg Document 16/01. "Transition from Eir's copper network: Proposed principles and notification procedures". Available online at <https://www.comreg.ie/publication/transition-from-eirs-copper-network/>

<sup>81</sup> Blueface, Rapid Broadband, Magnet, Airspeed, Digiweb, Virgin Media, Imagine, Eircom, Vodafone, A.C.N, Sprint, Three (O2,) Onwave, Ripplecom, Pure Telecom, Permanet, Nova, Ker broadband, Fastcom, Digital Forge, Colt, Casey Cable, BT, AT&T, ATS.

<sup>82</sup> <https://www.eir.ie/WiFiCall/>

## Mobile Network Operators ('MNOs')

- 3.45 Vodafone Ireland ('**Vodafone**') launched its retail service in Ireland in 2001 following its acquisition from Eircom of Eircell, which had been in operation since 1984. Vodafone offers both prepay and billpay mobile services to both retail and business customers. These services typically include voice, data and text services. Vodafone claims that its voice service covers 99% of the population. Vodafone is directly interconnected with a number of other Service Providers. It has been assigned mobile numbers<sup>83</sup> from ComReg in the 087 mobile number range and a Mobile Network Code ('**MNC**') and it utilises these in providing services to its subscribers.
- 3.46 Vodafone is continuing to roll out its 4G service, and states on its website that it has 90% 4G coverage in every county, with plans for further 4G expansion.
- 3.47 **Three** launched as Hutchison 3G Ireland ('**H3GI**') in September 2003, and in July 2005 commenced offering both prepay and billpay 3G voice, data and text services to retail and business customers.
- 3.48 In 2014, Hutchison 3G Ireland acquired Telefónica Ireland,<sup>84</sup> which operated the O2 brand, thereby becoming the second largest MSP in Ireland behind Vodafone, measured by subscriptions. As a consequence of Three Ireland's merger with O2, Telefónica (which owned the O2 brand) exited the Irish market. H3GI, trading as Three, changed its name to Three Ireland (Hutchison) Limited in September 2014. This is the entity which currently trades as Three in Ireland.
- 3.49 In return for the European Commission approving Hutchison 3G Ireland's acquisition of O2 Ireland, H3GI committed to facilitate the creation of two Mobile Virtual Network Operators ('**MVNOs**'). Accordingly, Virgin Media and iD Mobile signed MVNO agreements with Three Ireland (Hutchison) Limited. As set out in Section 2 above (see paragraphs 2.15 and 2.16), iD Mobile intends to exit mobile operations in Ireland, with a preference for a sale of the business to a 'dedicated owner'.
- 3.50 Three is directly interconnected with a number of Service Providers. It was assigned mobile numbers from ComReg in the 083 mobile number range and a MNC, and it utilises these in providing services to its subscribers. The 086 number range, previously assigned to O2, is still in use. However, ComReg has suspended assigning new 086 ranges. Three is currently rolling out '4G Plus' services.<sup>85</sup>

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<sup>83</sup> <https://www.comreg.ie/publication-download/numbering-conditions-of-use-and-applications-process>

<sup>84</sup> [http://ec.europa.eu/competition/mergers/cases/decisions/m6992\\_20140528\\_20600\\_4004267\\_EN.pdf](http://ec.europa.eu/competition/mergers/cases/decisions/m6992_20140528_20600_4004267_EN.pdf)

<sup>85</sup> <http://www.three.ie/explore/4g/>

- 3.51 **48**<sup>86</sup> which entered the Irish market in January 2012, is not an MVNO, and is correctly described as a business name of Three Ireland. It currently operates on the market by means of the Quartet MVNE, which was originally set up by O2 to accommodate Tesco Mobile Ireland (**TMI**) on its network.<sup>87</sup> The Quartet MVNE, which is now owned by giffgaff, now accommodates TMI, 48, and giffgaff in the UK.<sup>88</sup> 48 uses Three Ireland's 089 number range and Mobile Network Codes (MNC). 48 MTRs are the same as parent company, Three Ireland. Its wholesale activities are controlled and managed by Three Ireland which charges its MTR to other networks, and hands over calls to 48 subscribers.
- 3.52 **Eir Mobile** is, as of September 2017, the new name for the former Meteor brand. Meteor Mobile Communications (**'Meteor'**)<sup>89</sup> launched in 2001 and offers both prepay and billpay mobile voice, data and text services to both retail and business customers. Eir Mobile has stated voice coverage of 99% of the population and 95% 4G coverage. Eir Mobile is a wholly owned subsidiary of the Eircom Group.
- 3.53 Prior to the rebranding of Meteor, Eir Mobile<sup>90</sup> which launched in 2007, was an Eircom brand whose wholesale activities were controlled and managed by Meteor Ireland which charged its (regulated) MTR to other networks. Eir Mobile used Meteor's number ranges.
- 3.54 Following the September 2017 rebranding Eir Mobile now refers to the former Meteor brand.<sup>91</sup> Accordingly, all references to 'Meteor', 'eir Mobile', or 'Eircom Group Mobile' in this document should be taken to refer to Eir Mobile from September 2017 onwards.
- 3.55 Eir Mobile is directly interconnected with a number of authorised undertakings. It has been assigned mobile numbers from ComReg in the 085 mobile number range and a MNC and it utilises these in providing services to its subscribers. Eir Mobile has a 4G product offering including prepay or billpay customers.

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<sup>86</sup> <http://www.48months.ie/>

<sup>87</sup> <https://www.fujitsu.com/ie/Images/o2-ireland.pdf>

<sup>88</sup> <https://community.giffgaff.com/t5/Tips-Guides/How-giffgaff-works/td-p/3454967>

<sup>89</sup> See [www.eir.ie](http://www.eir.ie)

<sup>90</sup> Ibid.

<sup>91</sup> <http://www.independent.ie/business/technology/meteor-customers-assured-seamless-transition-as-eir-ditches-mobile-brand-35957852.html>

## Mobile Virtual Network Operators ('MVNOs')

- 3.56 A number of Mobile Virtual Network Operators ('MVNOs') in the State have entered into commercial wholesale network access arrangements with Mobile Network Operators ('MNOs'), which permit them to offer their own branded retail mobile services to customers.
- 3.57 The MVNO model can vary depending on the requirements and the network capabilities of the MVNO. Typically, an MVNO does not have access to network infrastructure, such as base stations, transceivers, and other associated equipment, and in general all MVNOs are defined by lack of spectrum.
- 3.58 In the context of the current analysis of the Relevant MVCT Markets, and having regard to the underlying wholesale network and technical arrangements between MSPs described below, in identifying the economic bottleneck associated with mobile termination, it is important to consider:
- (a) The nature of arrangements governing the control of the final routing of an incoming call to a MSP's subscriber; and
  - (b) Who sets/controls the MTR?
- 3.59 These questions are considered in Section 5 where the Relevant MVCT Market Definition is discussed.
- 3.60 In the State, MVNOs typically fall into 3 different categories (for the purpose of this Consultation, these categories describe the structure of MVNOs in the State, rather than purporting to be an exact and precise categorisation of MVNOs).
- (a) **Reseller or 'Light' MVNOs** – these MVNOs simply resell their host's minutes, and have no infrastructure or billing capability and use the host's numbers and do not charge (or have the ability to charge) MTRs. They may however, own and operate their own customer care, marketing, and sales operations
  - (b) **Full and Enhanced MVNOs** – in addition to their own billing and customer care processes, Enhanced MVNOs usually have some infrastructure which allows them to have complete control over their business and service offerings. Full MVNOs can have complete control over the operations, data and services launched due to certain core network nodes such as the Gateway Mobile Switching Centre (GMS) or Home Location Register (HLR). Such MVNOs operate in a similar way to an MNO, but without their own radio network. Full infrastructure MVNOs also have their own Short Message Service Centre (SMSC), Multimedia Messaging Service (MMS) and Gateway GPRS Support Node (GGSN) allowing full control over all the services they offer in the market and flexibility in designing and deploying new services. Full service MVNOs can have their own roaming and interconnect agreements. Both Enhanced and Full MVNOs can set and control their own MTRs (although each case requires individual consideration).
- 3.61 The following MVNOs operate in the Irish market:



- (a) Blueface;
  - (b) iD Mobile;
  - (c) Lycamobile;
  - (d) Postmobile;
  - (e) Tesco Mobile; and
  - (f) Virgin Media.
- 3.62 Postmobile and Blueface are pure Resellers and almost totally rely on the MNO's facilities. They do not own any network elements, but may own and operate their own customer care, marketing, and sales operations.
- 3.63 **Postmobile**<sup>92</sup> is a reseller MVNO which has entered into a commercial arrangement with Vodafone, which carries its traffic with other service providers. Postmobile commenced offering prepay 2G and 3G mobile services to personal customers in May 2010, including 'own branded' mobile voice, data, text messaging and other services. Postmobile does not have any network, switching or interconnect infrastructure. It uses Vodafone's 087 number range in providing services to its subscribers.
- 3.64 Postmobile's wholesale activities are controlled and managed by Vodafone which charges its MTR to other networks for supplying MVCT, and hands over the relevant calls to Postmobile's subscribers.
- 3.65 **Blueface**<sup>93</sup> is a reseller MVNO, and has entered into a commercial arrangement with X-Mobility which is a Mobile Virtual Network Enabler ('**MVNE**').<sup>94</sup> X-Mobility has, in turn entered into an MVNO arrangement with Three, which allows it to have its wholesale traffic carried on Three's network. In other words, Blueface accesses Three's network indirectly via X-Mobility.
- 3.66 Blueface commenced offering prepay and billpay mobile services to business customer segments in February 2012. Like Postmobile's arrangement with Vodafone, Blueface effectively resells minutes carried on Three's network and differentiates its services in the retail market through its own branded offerings. Blueface uses Three's numbers and is classified as a reseller MVNO.
- 3.67 Similarly, Blueface principally acts as a retail reseller of 'own branded' mobile voice, mobile data, text messaging and other services based on the underlying network and switching facilities provided by its host MNO, Three. At the wholesale level Three charges its MTR for the supply of MVCT to other networks that originate calls to mobile voice subscribers of Blueface.

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<sup>92</sup> [www.postmobile.ie](http://www.postmobile.ie)

<sup>93</sup> [www.blueface.com](http://www.blueface.com)

<sup>94</sup> As an MVNE, X-Mobility is not directly active in the Irish retail market but provides 'white label' wholesale services to enable MSPs to enter the retail mobile market through an MVNO arrangement.

- 3.68 The following MVNOs can be characterised as full/enhanced MVNOs, where the MVNO uses its host's radio network and core network but has its own applications, services, billing, customer care and marketing capabilities. They typically have numbers assigned to them by ComReg and at a wholesale level these MVNOs can set and control their own MTRs, therefore, they charge their MTR to other networks who originate calls on their behalf.
- 3.69 **Lycamobile's**<sup>95</sup> MVNO arrangements are classified as a 'full/enhanced MVNO'. It has a network implementation operating essentially the same technology as a mobile network operator, only lacking its own radio networks and spectrum.
- 3.70 Lycamobile entered into a MVNO commercial arrangement with O2 (now Three Ireland) and its traffic is now carried on Three's network. Lycamobile commenced offering prepay mobile services to personal customer segments in 2012. Lycamobile has been assigned mobile numbers from ComReg in the 089 mobile number range and a MNC, and it utilises these in providing services to its subscribers. Lycamobile has its own switching infrastructure and is indirectly interconnected to other authorised undertakings.
- 3.71 Lycamobile has its own UK-based switching infrastructure and can therefore control MVCT access to its subscribers by switching and routing termination traffic. Lycamobile also sets its own retail tariffs. Lycamobile determines the commercial terms and conditions associated with its supply of MVCT and can set and control its MTRs.
- 3.72 **Tesco Mobile Ireland**<sup>96</sup> ('TMI') is a fully-owned subsidiary of Tesco Ireland Holdings. In June 2017, Tesco Ireland Holdings notified the CCPC of its intention to acquire the shareholding in TMI currently held by Three Ireland Services (Hutchison) Limited. The CCPC, as part of its merger functionality, approved this transaction in July 2017.<sup>97</sup>

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<sup>95</sup> [www.lycamobile.ie/en/](http://www.lycamobile.ie/en/)

<sup>96</sup> <http://www.tescomobile.ie/>

<sup>97</sup> <https://www.ccpc.ie/business/mergers-acquisitions/merger-notifications/m17037-tesco-ireland-tesco-mobile/>

- 3.73 TMI entered into a MVNO commercial arrangement with O2<sup>98</sup> (now Three Ireland) and its traffic is carried on Three's network by means of the Quartet MVNE. Liffey Telecom, a wholly owned subsidiary of Three Ireland Services (Hutchison) Limited, was assigned<sup>99</sup> 089 mobile numbers and an MNC from ComReg. TMI commenced offering prepay mobile services to personal customer segments in November 2007 and billpay mobile services to personal customers in September 2011. TMI offers 2G and 3G services over Three's Network. TMI has the contractual right to determine its own wholesale commercial terms and conditions associated with its supply of MVCT. Following the merger clearance referred to above, the status of both Liffey Telecom and the Quartet MVNE may change in future. In ComReg's view, none of these changes would be likely to materially affect ComReg's analysis at this time.
- 3.74 Pursuant to the commitments offered by Three Ireland as part of the Three/O2 merger in 2014, **Virgin Media**<sup>100</sup> and **iD Mobile**<sup>101</sup> have both entered into MVNO commercial arrangements with Three Ireland, though which their traffic is carried on Three's network. Virgin Media commenced offering prepay mobile services to personal customer segments in October 2015.
- 3.75 iD Mobile is a brand operated by Carphone Warehouse Ireland Mobile Limited. It commenced services in August 2015<sup>102</sup> and its network is mainly targeted towards young adults (25 – 34 year olds) who are moderate to heavy data users, and are most likely prepay users. Voice services for both Virgin Media and iD Mobile have the same coverage as Three's network. As set out in paragraphs 2.15 and 2.16 in Section 2 above, iD Mobile's ultimate parent company, Dixons Carphone, indicated in June 2017 that it would be exiting mobile operations in Ireland.
- 3.76 Virgin Media and iD Mobile have both been assigned mobile numbers, in the 089 range along with MNCs from ComReg. Virgin Media and iD Mobile provide their services over the Three Ireland network and have established the contractual right to determine their own wholesale commercial terms and conditions associated with their supply of MVCT. The MVCT services provided by Virgin Media and iD Mobile are not currently subject to regulation. As stated above, they have the ability to set and control their own MTRs.

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<sup>98</sup> O2 Ireland established a wholly owned subsidiary called Liffey Telecom to act as a MVNE, and the ownership of Liffey Telecom became vested in Three following the O2/Three merger. This MVNE functionality was subsequently transferred to another entity, Quartet. Given Liffey Telecom's current ownership relationship with Three, it falls within the scope of Three's existing SMP designation and associated regulatory obligations.

<sup>99</sup> <https://www.comreg.ie/publication-download/numbering-conditions-of-use-and-applications-process>

<sup>100</sup> <https://www.virginmedia.ie/mobile/>

<sup>101</sup> <https://www.idmobile.ie/>

<sup>102</sup> <http://www.thejournal.ie/carphone-warehouse-id-ireland-explainer-2280482-Aug2015/>

- 3.77 Virgin Media and iD Mobile manage their own wholesale / billing relationships with other operators. When a call is made from another network to a Virgin Media mobile customer that call is handed over by the operator to Virgin Media - not to Three Ireland. Virgin Media charges an MTR to the operator that handed over the call. Virgin Media also sets its own MTR independently of its host MNO Three Ireland and other MSPs. iD Mobile charges its interconnect partners directly for termination. iD Mobile also has the ability to set its own MTR.

## Behavioural Trends in the Retail Mobile Voice Market

- 3.78 In this section of the Paper, ComReg identifies and discusses key behavioural trends in the Retail Mobile Voice Market. The last four years (from mid-2013) have seen a relatively stable retail mobile market in terms of voice subscriptions, while average minutes of mobile use has consistently shown year-on-year growth. These and other trends are discussed below:

- Total mobile phone subscriptions (at paragraph 3.82),
- Prepay and billpay subscriptions (at paragraph 3.83),
- Mobile phone switching data (at paragraph 3.84),
- Growth in average number of minutes of use by Irish subscriber (at paragraph 3.85),
- European monthly mobile minutes of use ('**MoU**') (at paragraph 3.86),
- RMVC on-net and off-net traffic trends (at paragraph 3.88 to 3.100),
- RMTS switching trends (at paragraph 3.101 to 3.105),
- Mobile phone usage relative to fixed phone usage (at paragraph 3.107 to 3.109), and
- Usage of smartphone and OTT services (at paragraph 3.110 to 3.113).

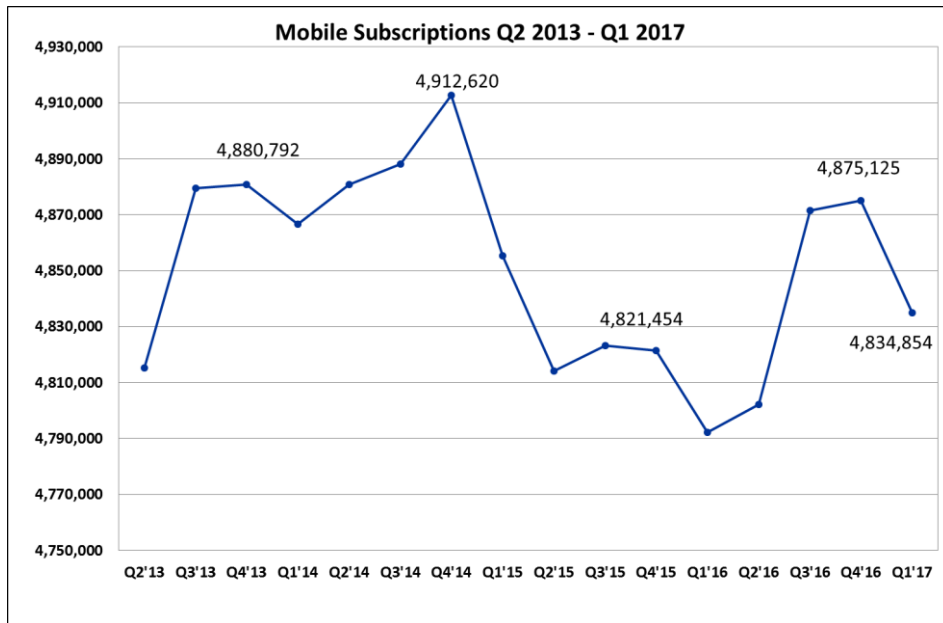
## Mobile phone subscription usage and characteristics

- 3.79 Figure 11 below shows mobile subscriptions from Q2 2013 to Q1 2017 (excluding mobile broadband and M2M subscriptions). A seasonal pattern can be seen each year with increases from Q2 to Q4, followed by a slight drop in subscriptions from Q4 to Q1.<sup>103</sup>

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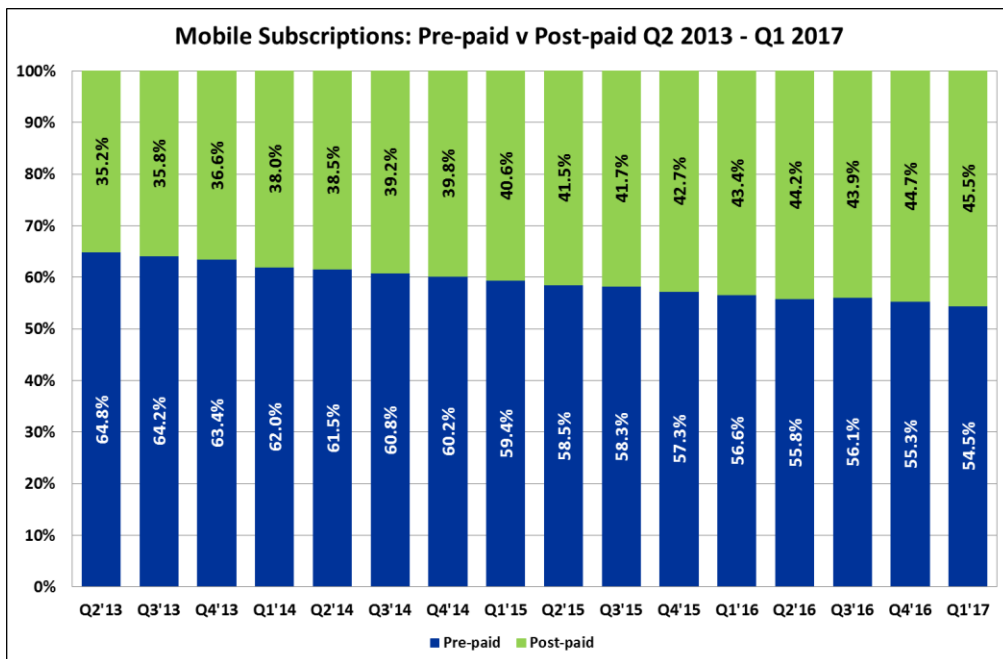
<sup>103</sup> Prior to Q3 2013 mobile phone subscriptions included M2M metrics. It should also be noted that from Q2 2016 two additional MSPs were included, namely iD Mobile and Virgin Media.

**Figure 11: Mobile Subscriptions, Q2 2013 – Q1 2017**



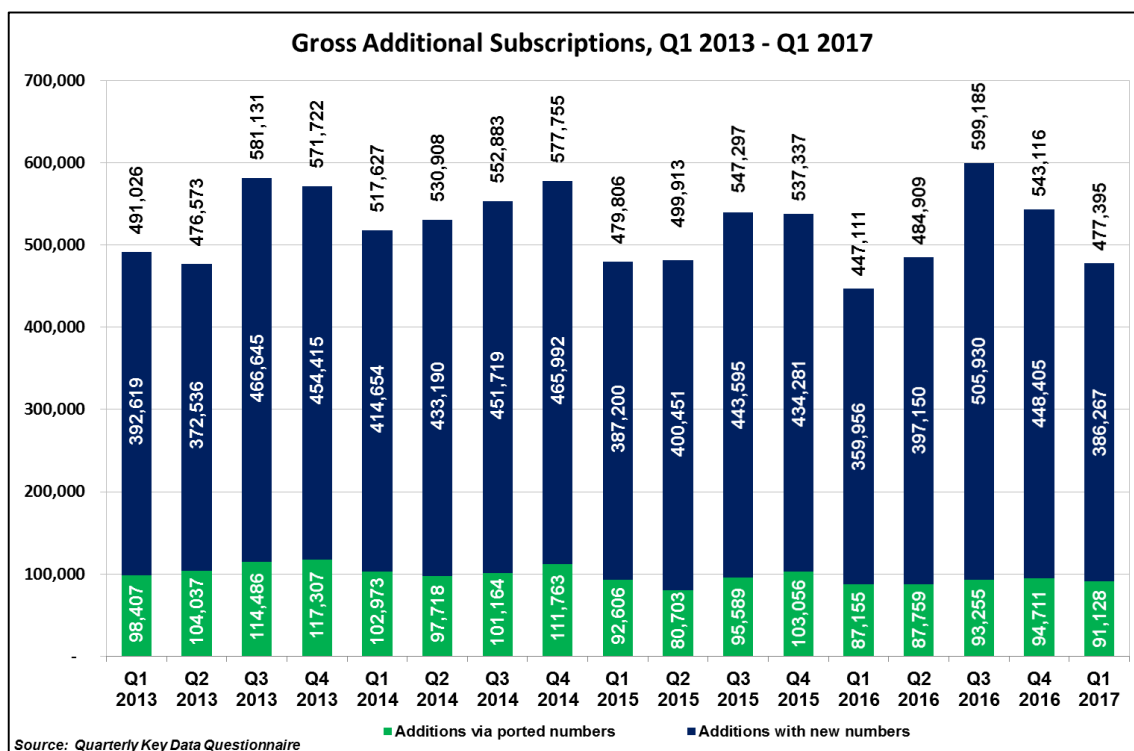
3.80 The proportions of prepay and billpay mobile subscriptions are shown in Figure 12 below. A clear trend shows consistent growth in billpay subscriptions. In Q2 2013 billpay subscriptions stood at 35.2% with prepay at 64.8%, compared to Q1 2017 figures of 45.5% and 54.5% for billpay and prepay respectively.

**Figure 12: Mobile Subscriptions, prepay and billpay: Q2 2013 – Q1 2017**



3.81 The quantities of gross additional<sup>104</sup> mobile subscriptions involving subscribers taking new mobile numbers or porting their existing numbers when switching MSP is shown in Figure 13. In Q1 2017 the proportion of additions that involved subscribers porting their mobile numbers was 19.1% while additional subscriptions that involved new mobile numbers made up the remaining 80.9%.

**Figure 13: Gross Additional Mobile Subscriptions, Q1 2013 – Q1 2017**

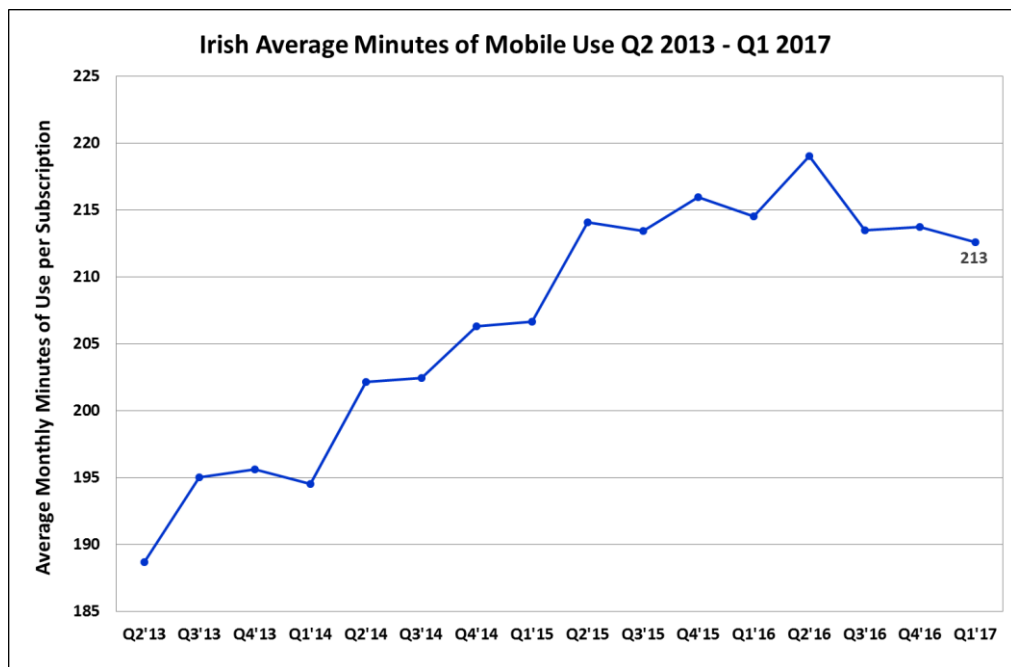


## Use of mobile voice services

3.82 Figure 14 shows growth in average number of minutes of use (MoU) by Irish mobile subscribers from 2013 to 2016. Over this period MoU rose by 12.7%.

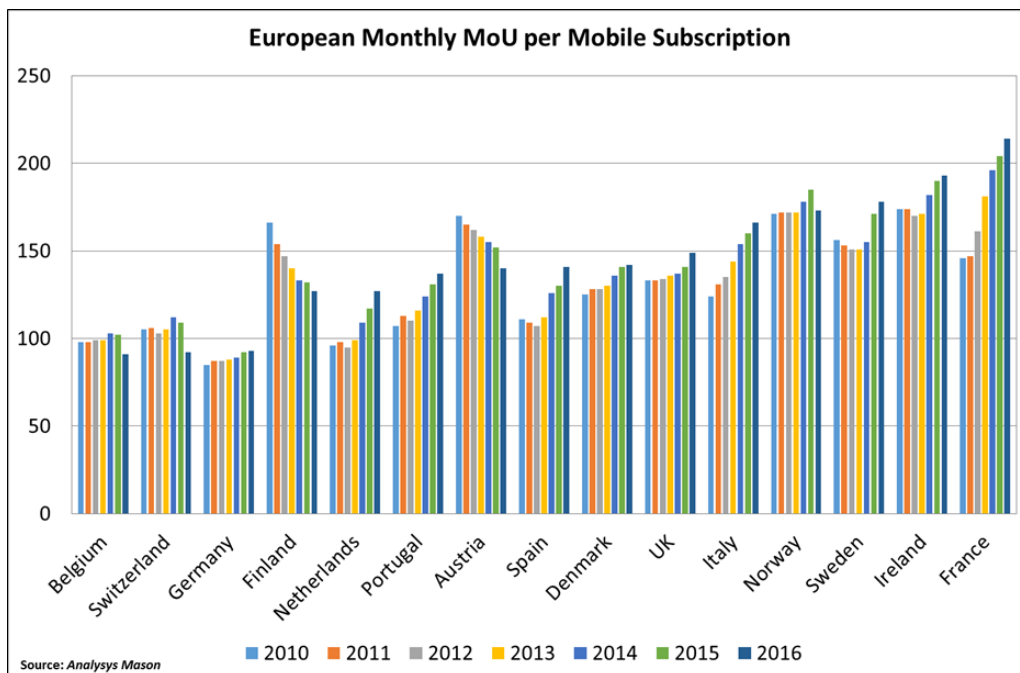
<sup>104</sup> Gross additions = the sum of ported numbers (from one operators to another (same phone number) + new phone numbers. In the QKDR the footnote for total gross additions is: “Gross additions include consumers who decide to avail of multiple SIMs and thus, slightly overstate the switching intensity in Ireland.”

**Figure 14: Average Minutes of Mobile Use, Q2 2013 – Q1 2017**



3.83 As highlighted in Figure 15 below, the average number of monthly mobile MoU by Irish mobile subscribers is among the highest in Europe. Market research estimates it to be approximately 34% higher than the European average for 2016.<sup>105</sup> Figure 15 shows that in 2016 only French mobile subscribers (214 minutes per month) had a greater MoU quantity than Irish subscribers (193 minutes per month).

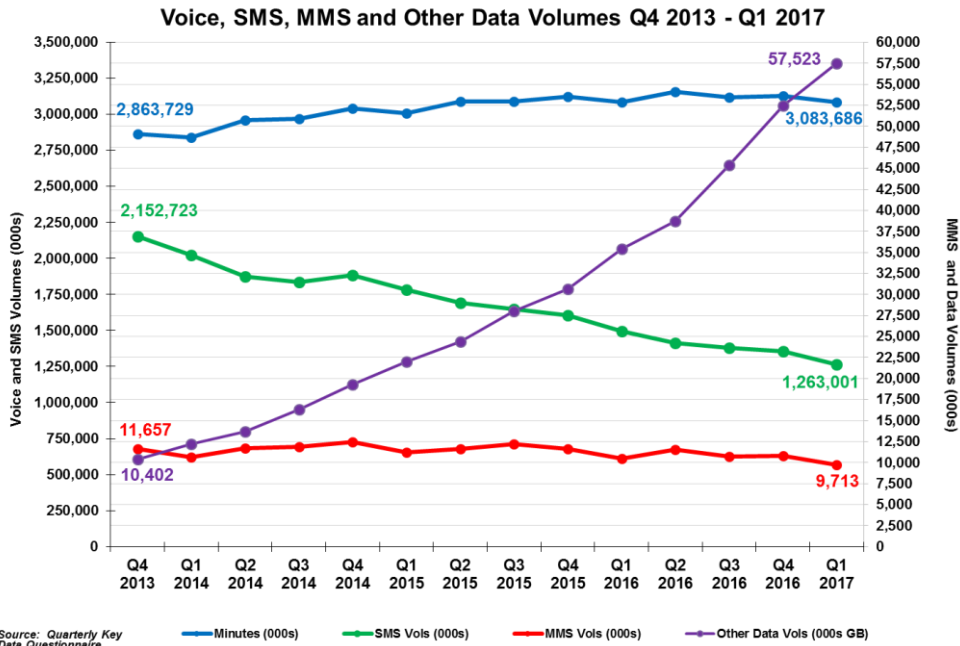
**Figure 15: Average Number of Monthly Mobile MoU 2010-2016**



<sup>105</sup> The latest available data for European Minutes of Use is for 2016.

3.84 Figure 16 shows Voice, SMS and Other Data Volumes per quarter from Q4 2013, we can see an increase on call minutes, with SMS volumes declining, MMS volumes remain steady and other data show a significant increase.

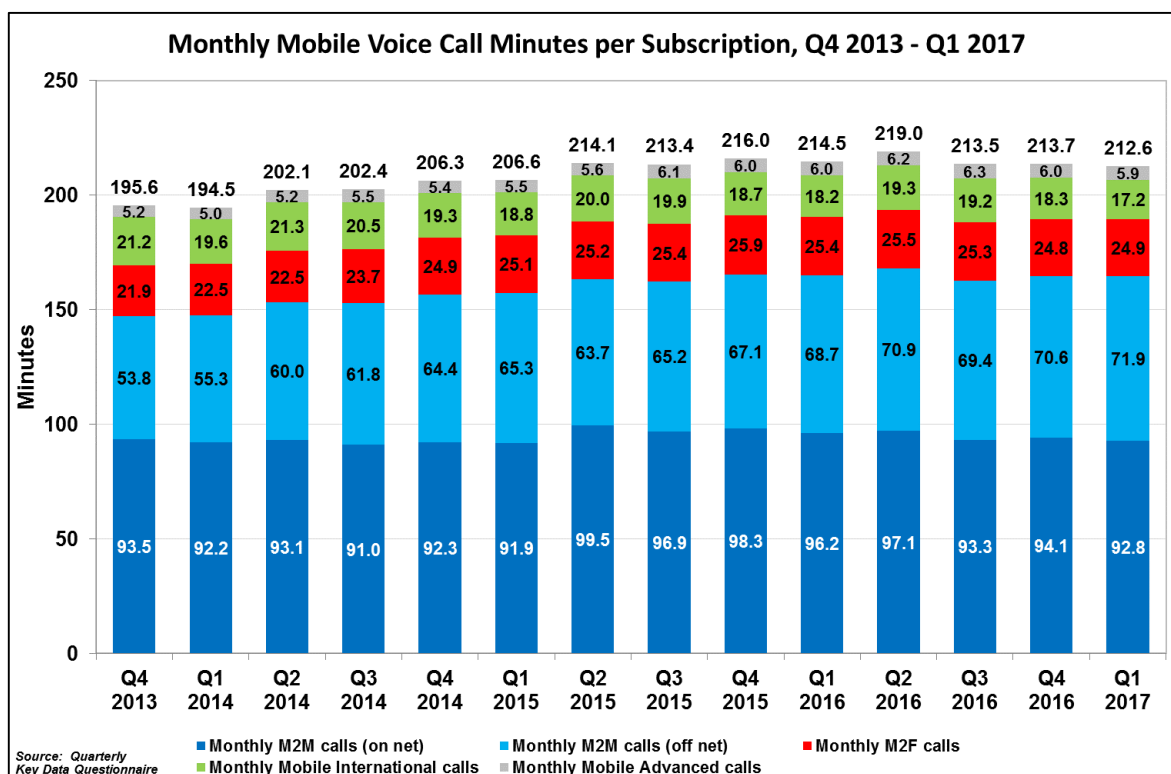
**Figure 16: Voice, SMS, MMS and Data Volumes, Q4 2013 – Q1 2017**



3.85 Figure 17 shows monthly mobile voice call minutes per subscription, a slight increase is seen on mobile-to-mobile off-net traffic, with a steady state in mobile-to-fixed call minutes.



**Figure 17: Monthly Mobile Call Minutes per Subscription, Q4 2013 - Q1 2017**

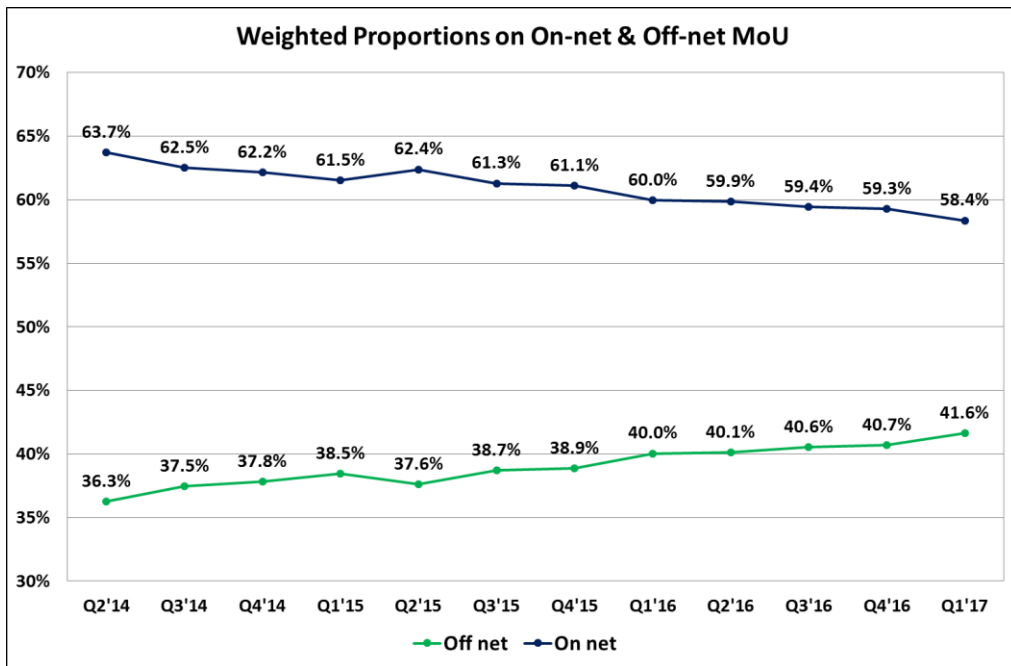


## Mobile on-net and off-net traffic trends

3.86 Figure 18 shows the average off-net MVCT (on another MSP or FSP) and on-net (self-supplied) termination of retail traffic weighted by market share,<sup>106</sup> from Q2 2014 to Q1 2017 (excluding new entrants Virgin Media and iD Mobile). In Q2 2014 off-net termination accounted for 36.3% and increased to 41.6% in Q1 2017. Similarly, on-net termination decreased from 63.7% to 58.4% from Q2 2014 to Q1 2017.

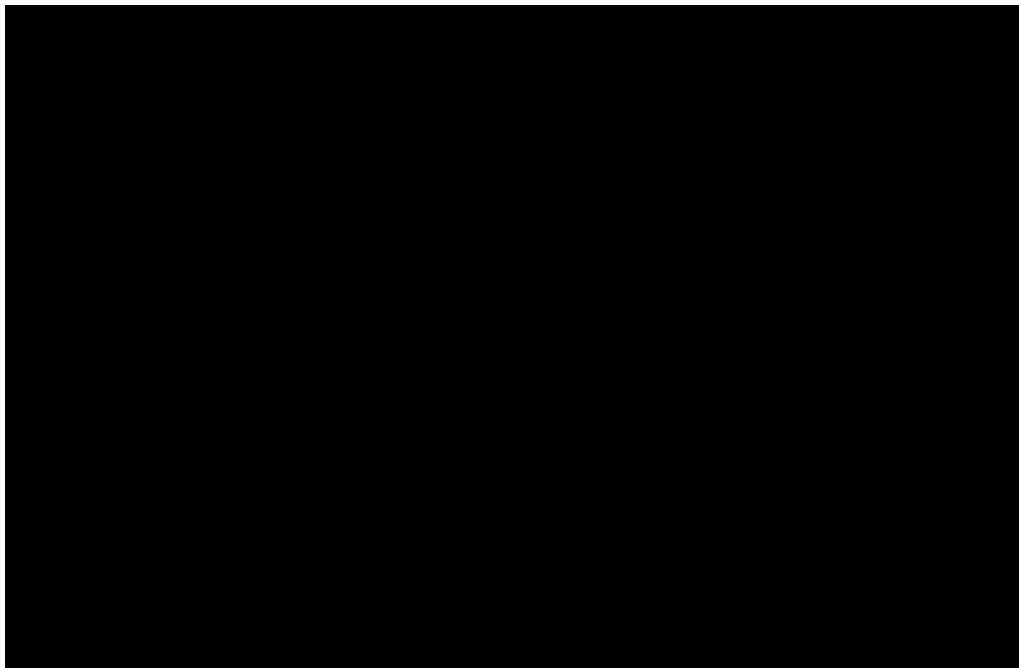
<sup>106</sup> Given the varied on-net/off-net traffic profiles that each MSP has experienced over time, ComReg has, in the relevant period, weighted all individual MSPs' traffic profiles by their individual market shares (as measured by subscriptions). These are then aggregated for the relevant time period. ComReg adopted the same approach in its 2012 MVCT Consultation.

**Figure 18: Proportions of on-net and off-net minutes of use, weighted by market share**



3.87 ComReg also examined off-net MVCT traffic trends over the last three years, set out in Figure 19 below.

**Figure 19: On-net MVCT traffic (weighted), Q2 2014 – Q1 2017 [§<REDACTED>]**



3.88 Individual MSPs’ on-net retail MVCT was also considered (self-supply of mobile termination). In Q1 2017 on-net MVCT as a percentage of overall MVCT for each MSP was as follows:

**Table 3: MSP on-net termination %, Q2 2014 – Q1 2017 [REDACTED]**

Mobile Service Provider	On-net % Termination	Percentage-point Change
Vodafone	[REDACTED] %	[REDACTED] %
Meteor	[REDACTED] %	[REDACTED] %
TMI	[REDACTED] %	[REDACTED] %
Lycamobile	[REDACTED] %	[REDACTED] %
Three	[REDACTED] %	[REDACTED] %

3.89 [REDACTED]

3.90 Table 3 also shows the percentage point change (column on right) in the proportion of on-net ‘self-supplied MVCT’ from Q2 2014 to Q1 2017.<sup>107</sup> In all cases on-net traffic growth has decreased in a range from -9.4% to -2.0%.

3.91 Table 4 shows the actual percentage change in individual MSP volumes of on-net self-supplied termination minutes from Q2 2014 to Q1 2017. There is large variance in positive and negative growth, ranging from -58% to 109%.

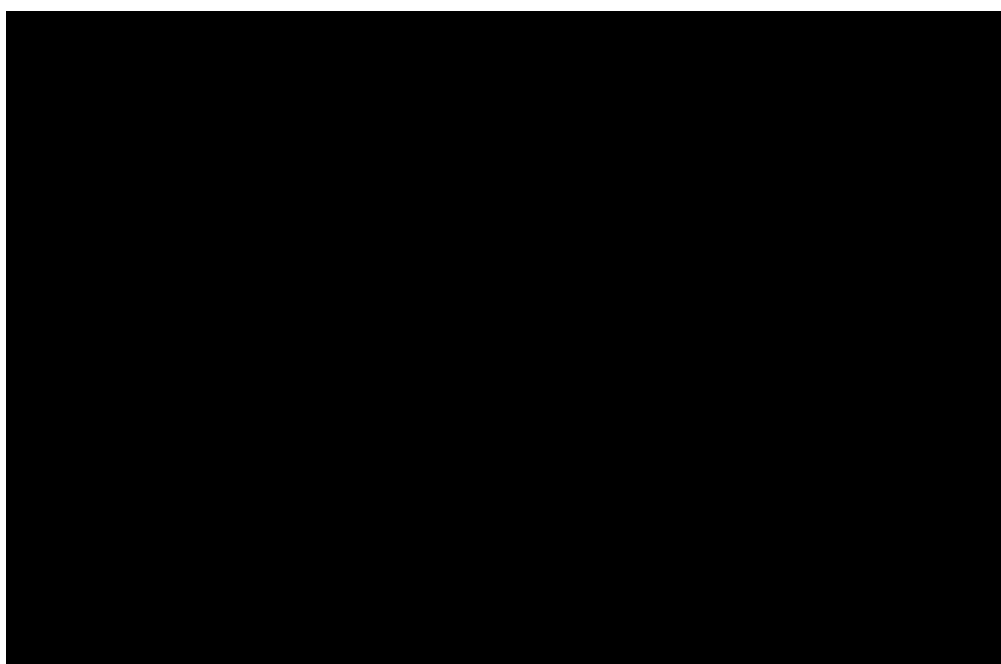
**Table 4: MSP % change in on-net MVCT, Q2 2014 – Q1 2017 [REDACTED]**

Mobile Service Provider	Actual % Change in On-net MVCT
Vodafone	[REDACTED] %
Meteor	[REDACTED] %
TMI	[REDACTED] %
Lycamobile	[REDACTED] %
Three	[REDACTED] %

3.92 ComReg also examined off-net termination traffic trends over the last three years, set out in Figure 20 below.

<sup>107</sup> From Q2 2015 to Q1 2017 for Three.

**Figure 20: Off-net termination traffic, (weighted), Q2 2014 – Q1 2017**  
 [REDACTED]



3.93 Individual MSPs’ off-net traffic profiles are also considered. In Q1 2017 off-net retail termination as a percentage of overall termination for each MSP was as follows:

**Table 5: MSP off-net termination %, Q2 2014 – Q1 2017 [REDACTED]**

Mobile Service Provider	Off-net % Termination	Percentage-point Change since Q2 2014
Vodafone	[REDACTED] %	[REDACTED] %
Meteor	[REDACTED] %	[REDACTED] %
TMI	[REDACTED] %	[REDACTED] %
Lycamobile	[REDACTED] %	[REDACTED] %
Three	[REDACTED] %	[REDACTED] %

3.94 The proportion of off-net voice termination traffic was highest for [REDACTED] followed by [REDACTED] while [REDACTED] had the lowest off-net termination. As of Q1 2017 [REDACTED] % of TMI’s calls were off-net, [REDACTED] % in Q2 2014. Three’s off-net calls were [REDACTED] % in Q1 2017 [REDACTED] % in Q2 2015). As of Q1 2017, Meteor had off-net calls of [REDACTED] % [REDACTED] % in Q2 2014), Vodafone’s off-net calls were [REDACTED] % in Q1 2017 [REDACTED] % in Q2 2014 and Lycamobile’s off-net calls stood at [REDACTED] % in Q1 2017 [REDACTED] % in Q2 2014).

3.95 Table 5 also shows the percentage point change (column on right) in the proportion of off-net termination from Q2 2014 to Q1 2017. In all cases off-net traffic growth has increased in a range from 2% to 9.4%

- 3.96 Table 6 shows the actual percentage change in individual MSP volumes of off-net self-supplied termination minutes from Q2 2014 to Q1 2017. Four out of the five operators increased their off-net termination rates, with [REDACTED] showing the greatest increase at [REDACTED]%. [REDACTED] showed a decrease in off-net termination at [REDACTED]% over this period.

**Table 6: MSP % change in off-net termination, Q2 2014 – Q1 2017**  
[REDACTED]

Mobile Service Provider	Actual % Change in Off-net Termination
Vodafone	[REDACTED]%
Meteor	[REDACTED]%
TMI	[REDACTED]%
Lycamobile	[REDACTED]%
Three	[REDACTED]%

- 3.97 Overall, the proportion of on-net traffic has decreased while off-net traffic has increased. The [REDACTED] have seen increases in their individual off-net volumes and decreases or no change in on-net volumes. The [REDACTED] differ, with [REDACTED] showing increased on-net and off-net volumes and [REDACTED] showing decreases in both. Virgin Media and iD Mobile, along with Postfone and Blueface are not included in the analysis as they have minimal impact (market share for all four of 1.7% as of Q1 2017).

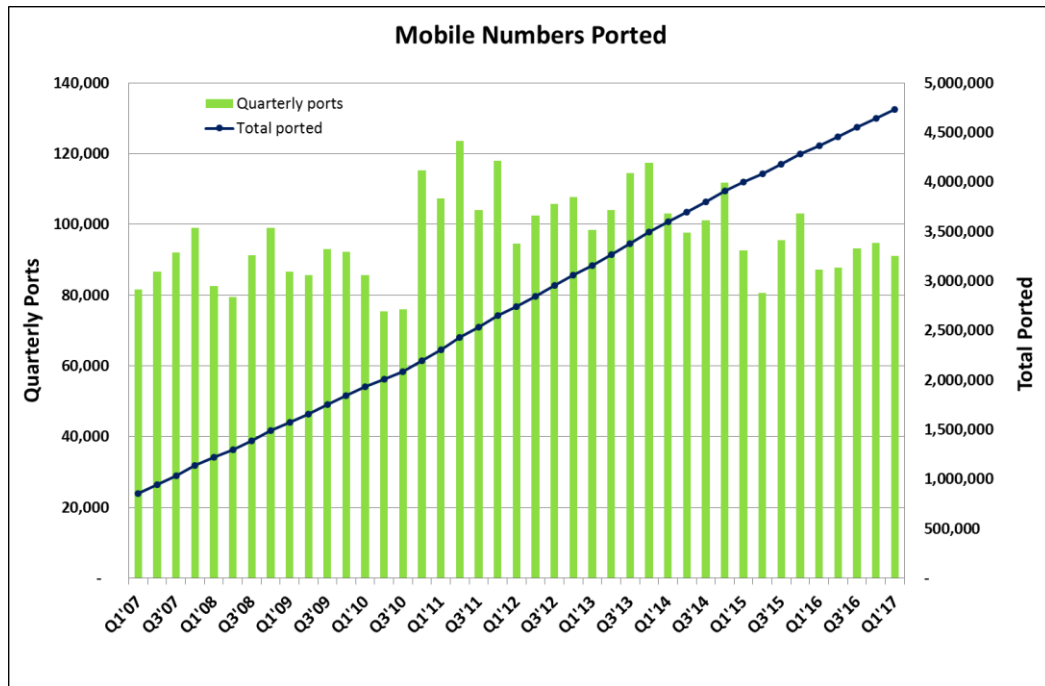
## Switching trends

- 3.98 Mobile Number Portability (**MNP**) is the process whereby subscribers can keep their mobile number when switching MSP. The level of MNP is, therefore, somewhat indicative of the level of switching<sup>108</sup> in the retail mobile market, although, as noted in paragraph 3.84 above, the majority of subscribers do not seem to port their telephone number when switching MSP. Figure 21 illustrates the cumulative total of mobile numbers ported between Irish MSPs since Q1 2007. Just under 3.9 million mobile numbers have been ported between from Q1 2007 to Q1 2017. In Q1 2017, 91,128 mobile numbers were ported between MSPs (a sum of 366,853 mobile numbers in the twelve months to March 2017 with an average of 91,713 for the same period).<sup>109</sup>

<sup>108</sup> In the QKDR the footnote for total gross additions is: “Gross additions include consumers who decide to avail of multiple SIMs and thus, slightly overstate the switching intensity in Ireland.”

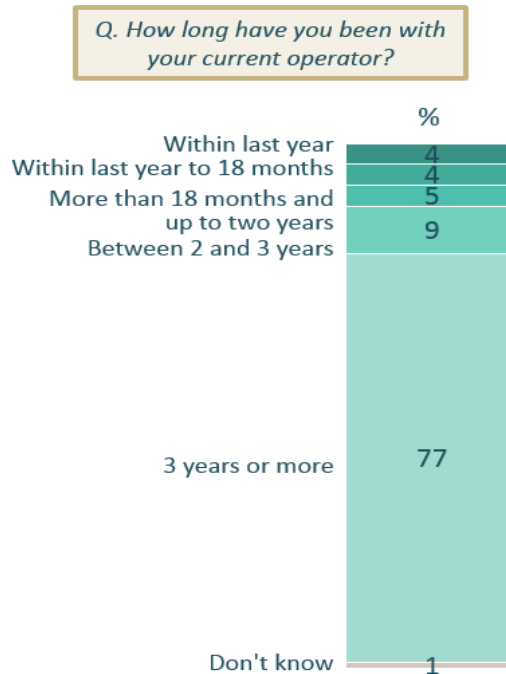
<sup>109</sup> See also data set out at Figure 13.

**Figure 21: Mobile numbers ported, 2007-2017**



3.99 According to 2016 Market Research, 77%<sup>110</sup> of the survey sample have been with their current mobile supplier for more than three years, rising to 84% for older subscribers (aged 55+).

**Figure 22: Customer length of time with a MSP**

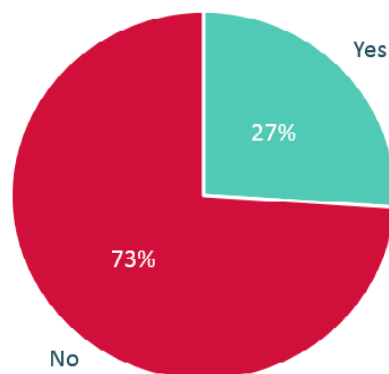


<sup>110</sup> 2016 Consumer MVCT Market Research, slide 98

3.100 73%<sup>111</sup> of all survey respondents indicated that they have never switched MSP. Respondents in rural areas switched least, with 82% reporting to have never switched.

**Figure 23: Customer proportion of switching**

Q. Were you previously with another mobile phone operator?



3.101 The above switching figures, allied to the long periods that consumers have been with their current MSP, may suggest that customer switching is concentrated amongst a group of mobile subscribers (repeat switchers) rather than among the broader subscriber base.

## Retail price plans – Consumer switching choices in the last 12 month

3.102 When asked “Have you switched the price plan/packages you are on with your operator in the last 12 months?”, 11%<sup>112</sup> of survey respondents said that they had switched their mobile price plan in the past year, 89% said they had not switched in the last 12 months and 55+ year olds had lowest incidence of switching, at 7%.

## Packages and bundles – most common bundle choice

3.103 8%<sup>113</sup> of those surveyed purchased their mobile phone service as part of a bundle with other telecommunication services. The service most commonly bundled with mobile phone is fixed line broadband (75%),<sup>114</sup> according to the mobile phone bundle respondents in the survey.

<sup>111</sup> 2016 Consumer MVCT Market Research, slide 100

<sup>112</sup> 2016 Consumer MVCT Market Research, slide 20

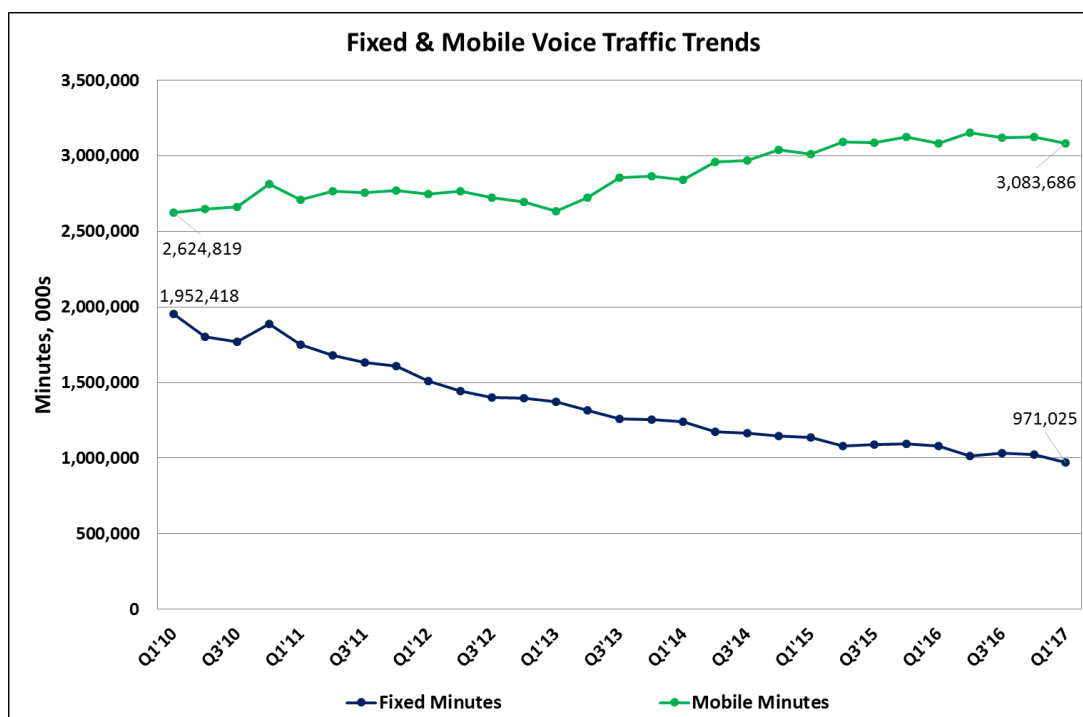
<sup>113</sup> 2016 Consumer MVCT Market Research, slide 21

<sup>114</sup> 2016 Consumer MVCT Market Research, slide 22

## Mobile phone usage increases relative to fixed phone usage

3.104 Figure 24 below shows a continual increase in mobile voice traffic compared to decreasing fixed voice traffic from Q1 2010 to Q1 2017. Retail mobile voice traffic totalled 3.08 billion minutes in Q1 2017, an increase of 17.5% since Q1 2010. Over the same period total fixed minutes declined by 50.3%.

**Figure 24: Fixed & mobile voice traffic trends, Q1 2010 – Q4 2016**



3.105 As of Q1 2017, approximately 77.5% of all mobile originated voice minutes were mobile-to-mobile (on-net and off-net) minutes with 11.7% being to fixed line phones. In Q1 2010, 75.2% of all mobile originated voice minutes were mobile-to-mobile (on- and off-net) minutes, with 11.1% being to fixed line phones. Over the same period, the total volume of mobile-to-mobile voice minutes increased by 20.9%, while mobile-to-fixed minutes increased by 23%.

3.106 As of Q1 2017, 46.4% of all fixed line originated voice minutes were to domestic fixed line phones with 14.4% being to domestic mobiles. In Q1 2010, 60.6% of all fixed line originated voice minutes were to other domestic fixed line phones with 13.7% being to domestic mobiles. Over this same period, the total volume of fixed-to-mobile voice minutes decreased by 47.4% while fixed-to-fixed minutes decreased by 61.9%.



## Smartphone usage – increase usage of Smartphones

3.107 The prevalence of smartphones has increased in the last five years. According to the ComReg QKDR for Q2 2017, as of Q1 2017 there were 4,278,646 smartphone subscriptions in the State, representing 87.4% of mobile voice subscriptions. This compares to 1,922,485 in Q3 2011 which consisted of 39.4% of mobile voice subscriptions. Smartphone subscriptions have increased by 123% over this period with a percentage-point increase of +48%.

## Over-the-top (OTT) services and applications

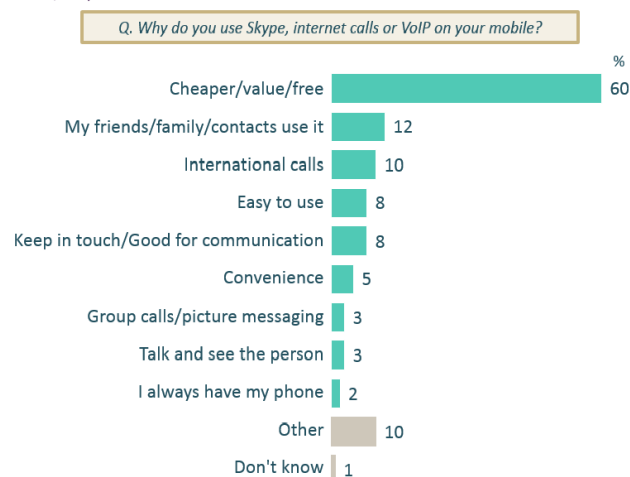
3.108 74%<sup>115</sup> of respondents to the 2016 Market Research personal consumer survey indicated that they had a smartphone.<sup>116</sup> Smartphone ownership reduces greatly for those aged 55+ (41%). In contrast, 94% of those aged 15-34 own a Smartphone, according to the survey.

3.109 When asked about frequency of receiving calls, and frequency of using OTT apps to make calls, 27%<sup>117</sup> of the survey sample with a smartphone use OTT apps on their phone for calls on a daily basis, while 33% say they have never used their smartphone to do so. Among survey respondents that use OTT apps for calls, the most common reason given for doing so is lower price (60%).<sup>118</sup>

**Figure 25: Reasons given for using internet call services**

### Reasons For Using Skype, Internet Calls Or VOIP On Mobile Phone

(Base: All Using Apps For Calls, 512)



<sup>115</sup> 2016 Consumer MVCT Market Research, slide 24

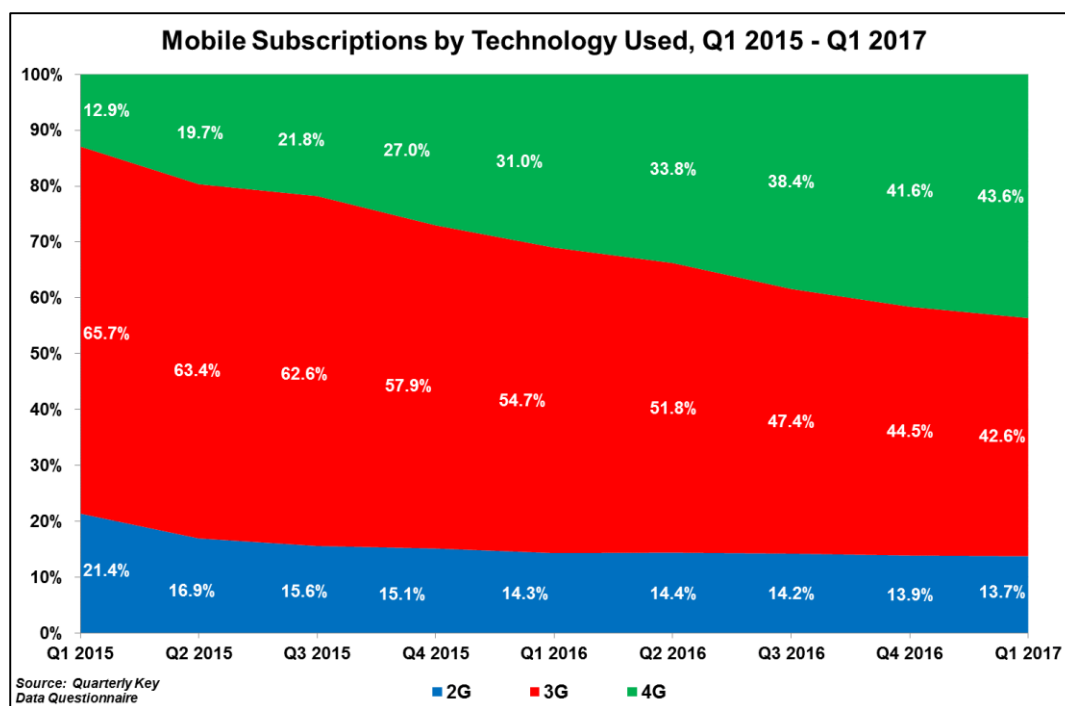
<sup>116</sup> For the purposes of the 2016RedC Market Research, a mobile phone was considered to be a smartphone when it allows access to email, web surfing and downloading of apps.

<sup>117</sup> 2016 Consumer MVCT Market Research, slide 26

<sup>118</sup> 2016 Consumer MVCT Market Research, slide 27

3.110 Figure 26 below shows mobile subscriptions by technology used. Over the two years up to Q1 2017 the proportion of 4G handsets has more than tripled from 12.9% to 43.6%. This is reflective of changing technology enabling the use of applications dependent on data consumption.

**Figure 26: Mobile subscriptions by technology used**



## Preliminary conclusions on retail trends in relation to mobile voice

3.111 Further to the above assessment of retail trends in the provision of retail mobile services since the 2012 MVCT Decision, ComReg is of the preliminary view that the following key trends may be observed:

- Mobile voice subscriptions continue to grow;
- The proportion of total mobile phone subscriptions accounted for by the billpay segment continues to grow while, correspondingly, prepay subscriptions continue to decline;
- Ported numbers vary Quarter on Quarter but average at just over 500,000 per quarter; however, the majority of subscribers appear to take on new numbers when switching, rather than porting their old numbers, as set out above at Figure 13: Gross Additional Mobile Subscriptions, Q1 2013 – Q1 2017;
- The number of SMS messages sent from mobile phones by subscribers continues to decline precipitously see Figure 16: Voice, SMS, MMS and Data Volumes, Q4 2013 – Q1 2017 above;

- (e) A rise is observed in data usage / OTT services. This is reflected in the packages offered to consumers by MSPs, which respond to consumer preferences for the use of applications which consume data volumes by (a) offering greater data volumes, as measured in GB, and (b) offering access to applications on a 'zero-rated' basis, such that usage of the app in question does not result in consumption of the user's data allowance. For example, eir Mobile currently offers 'More Than You Can Eat' data, whereby accessing YouTube, Facebook, Snapchat, Instagram, Twitter, WhatsApp and Viber messaging does not result in consumption of the data package; and<sup>119</sup>
- (f) The number of mobile minutes remain steady.

3.112 From June 2017, roaming rates have been abolished within the EU, such that communications (phone calls, SMS, data) made from another EU country will be covered under a subscriber's 'national' bundle: the minutes, SMS and gigabytes of data consumed abroad in the EU are charged or deducted from the volumes of a subscriber's national tariff plan exactly as if they were using their plan in their home country.

## Other emerging trends and innovations

3.113 As set out at paragraph 3.46 above, WiFi calling and VoB appear to be emerging trends in the RFVC market. In respect of RMVC markers, in the short to medium term, it is likely that services making use of 4G functionality, such as VoLTE,<sup>120</sup> will be launched on the Irish market. VoLTE is currently available on a number of UK mobile networks, including Three, EE, O2 and Vodafone. In July 2017, Vodafone announced plans to launch both Voice over WiFi and VoLTE in Ireland in 2018.<sup>121</sup>

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<sup>119</sup> <https://www.eir.ie/mobile/prepay/>

<sup>120</sup> Voice over Long-Term Evolution (**VoLTE**) is a standard for high-speed wireless communication for mobile phones and data terminals. VoLTE has up to three times more voice and data capacity than 3G UMTS and up to six times more than 2G GSM.

<sup>121</sup> [https://www.siliconrepublic.com/comms/vodafone-voice-lte-wifi?utm\\_source=Silicon+Republic+news+alerts&utm\\_campaign=9f703ae354-4pm+News+Alerts5+28+2015&utm\\_medium=email&utm\\_term=0\\_1c0c3c9f35-9f703ae354-110005401&mc\\_cid=9f703ae354&mc\\_eid=9c34727b49](https://www.siliconrepublic.com/comms/vodafone-voice-lte-wifi?utm_source=Silicon+Republic+news+alerts&utm_campaign=9f703ae354-4pm+News+Alerts5+28+2015&utm_medium=email&utm_term=0_1c0c3c9f35-9f703ae354-110005401&mc_cid=9f703ae354&mc_eid=9c34727b49)

3.114 In the longer term, it is likely that the introduction of 5G will facilitate greater data throughput and usage. 5G will dramatically increase the speed at which data is transferred, improve response times and provide capacity for interconnectivity of devices by means of the ‘internet of things’ (IoT). ComReg issued spectrum rights of use in the 3.6 GHz band to five MSPs (Vodafone, 3 Ireland, Meteor, Imagine and Airspan) by means of an auction, the results of which were announced in May 2017.<sup>122</sup> The 3.6GHz band has been identified by ComReg and by the Radio Policy Spectrum Group (‘RPSG’, the high-level advisory group that assists the European Commission in the development of radio spectrum policy) as being the primary band suitable for the introduction of 5G in Europe.<sup>123</sup> 5G services are not likely to be rolled out in Ireland for a number of years.

**Q. 1. Do you agree that this Section identifies the main relevant developments in the retail fixed voice and mobile voice markets since the previous reviews of the Relevant FVCT and MVCT Markets? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

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<sup>122</sup> <https://www.comreg.ie/five-winning-bidders-comregs-3-6-ghz-band-spectrum-award/>

<sup>123</sup> As set out in paragraph 1.12 of ComReg Document 17/28, “Results of the 3.6 GHz Band Spectrum Award - Information Notice”.

## 4 Assessment of Retail Fixed and Mobile Voice Calls

- 4.1 This Section sets out the key structural and behavioural characteristics in the provision of retail fixed voice calls ('**RFVC**') and retail mobile voice calls ('**RMVC**'); collectively, '**retail voice calls**', or '**RVC**', in the State. The purpose of this Section is to inform ComReg's preliminary views on the definition of the FVCT and MVCT Markets in Section 5 of this Consultation, which includes the assessment of any indirect constraints arising from the RFVC and RMVC markets and the subsequent competition assessment of the FVCT and MVCT markets in Section 6.<sup>124</sup>
- 4.2 In assessing retail telephony services, this Section considers possible effective substitutes for RFVC and RMVC which would incur a termination charge, i.e. RFVC to a mobile phone, or to an off-net fixed number,<sup>125</sup> and RMVC to a fixed number, or an off-net mobile number, taking into account:
- (a) Factors affecting the responsiveness of consumers to changes in RFVC and RMVC prices, including changes in off-net call prices;
  - (b) Any potential effective substitutes for an off-net call to a retail telephony subscriber; and
  - (c) Any potential effective supply-side substitutes for RFVC and RMVC.
- 4.3 The assessment also sets out ComReg's preliminary views on the geographic scope of retail telephony service markets. In carrying out this assessment ComReg considers the 2016 Market Research,<sup>126</sup> information provided by Service Providers in response to SIRs,<sup>127</sup> information provided by Service Providers to ComReg for its QKDRs and other available data.<sup>128</sup>

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<sup>124</sup> Indirect constraints on WVCT may arise if (1) purchasers of WVCT (i.e. the calling party's network) pass on wholesale price increases to retail voice call customers through retail price increases; (2) consumers are aware of, and responsive to, these retail price changes, and (3) a sufficient number of these customers were likely to switch to alternative modes of communication in response to retail price increases.

<sup>125</sup> As set out in Section 5, and for the purposes of this market review, 'fixed numbers' encompasses Geographic Numbers, 076 numbers, and emergency (112/999) numbers.

<sup>126</sup> ComReg notes that the 2016 Market Research is not sufficient in itself to draw definitive conclusions regarding consumer preferences. ComReg also notes that stated consumer behaviour may diverge from actual consumer behaviour in practice. Therefore, such results are considered alongside other evidence, where available, in this Consultation.

<sup>127</sup> In July 2016 pursuant to its powers under section 13D(1) of the Communications Regulation Act 2002 (as amended), ComReg issued a series of SIRs to FSPs and MSPs. ComReg received all responses to those SIRs by September 2016.

<sup>128</sup> For example, publicly available information (e.g. on Service Providers' websites).

- 4.4 In the absence of clear, precise data regarding elasticities of demand for calls to subscribers on other networks and their potential substitutes, ComReg also employs the Hypothetical Monopolist Test ('HMT')<sup>129</sup> to inform its consideration of relevant issues. This is considered alongside other available data.

## Possible effective substitutes for an off-net RFVC or RMVC

### Factors affecting the responsiveness of end users to changes in RFVC or RMVC prices

- 4.5 Demand for WVCT is derived from the demand of retail telephony service subscribers who make calls to subscribers on other networks (i.e. calling party requirements), and subscribers who receive calls from subscribers on other networks (i.e. called party requirements).
- 4.6 A number of (consumer and SME<sup>130</sup>) subscriber characteristics are relevant to determining whether any retail products exist that might constitute a demand-side substitute for making calls to the subscriber of a particular Service Provider. These characteristics are also relevant in assessing the strength of indirect constraints arising from the retail telephony service market on the WVCT markets. They are considered by ComReg under the following headings:
- (a) Calling Party Pays Principle and its impact on call behaviour is considered in paragraphs 4.7 to 4.22;
  - (b) Retail pricing structures for retail telephony services, is considered in paragraphs 4.23 to 4.33;
  - (c) Consumer/Small and Medium Enterprise ('SME') network awareness is considered in paragraphs 4.34 to 4.60;
  - (d) Consumer/SME awareness of retail voice call costs; is considered in paragraphs 4.61 to 4.73, and
  - (e) Consumer/SME sensitivity to retail voice call costs is considered in paragraphs 4.74 and 4.98.

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<sup>129</sup> The hypothetical monopolist test ('HMT') involves observing the consumer response to a small but significant non-transitory increase in price ('SSNIP') of the focal product. If a significant number of consumers switch to an alternative product arising from the SSNIP, making the price increase unprofitable, then the alternative product is also included in the relevant product market.

<sup>130</sup> Small and Medium-sized Enterprises.

## Calling Party Pays Principle and its Impact on Call Behaviour

- 4.7 Under the Calling Party Pays ('**CPP**') principle adopted in the State and throughout the EU, the retail fixed or mobile subscriber who initiates the call generally bears the entire cost of making a RFVC or RMVC. The Service Provider of the called party supplies a WVCT service to the calling party's originating Service Provider.<sup>131</sup> The originating Service Provider accordingly pays a wholesale termination rate to the terminating Service Provider for providing this call completion service. Hence, the termination rate is a cost input for the originating Service Provider and is likely to be reflected in the retail call or other charges (for instance, where the cost input is incorporated into overall costs in the case of a bundle) that it levies on its own subscribers when they make calls.
- 4.8 The CPP principle thus implies that changes in termination rates directly impact the calling party's Service Provider's costs. Retail subscribers of Service Providers providing WVCT services (i.e., the called parties) have no direct visibility of termination rates and, therefore, this suggests they are unlikely to react significantly to changes in termination rates. As the called party (i.e. the subscriber of the terminating Service Provider) is very unlikely to observe, and therefore respond to, termination rate price signals directly, the CPP principle may facilitate the terminating Service Provider's ability to profitably sustain an increase in its termination rates above the competitive price level.
- 4.9 Subscriber behaviour in retail markets may nonetheless indirectly impact the ability of the terminating Service Provider to profitably sustain an increase in termination rates above the competitive level<sup>132</sup> (via retail demand-side substitution) depending on:
- (a) How much of the termination rate increase by the calling party's Service Provider is passed through by the originating Service Provider to its retail charges for calls made by its subscribers to subscribers of the terminating Service Provider;
  - (b) The strength of any subsequent calling party reactions to the resulting retail price increase; and
  - (c) The strength of any subsequent called party reactions to the resultant retail price increase to the calling party.
- 4.10 These factors are considered below.

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<sup>131</sup> This can involve Call Termination being provided to a Transit Provider where the originating Service Provider and the terminating Service Provider are not directly interconnected.

<sup>132</sup> Indirect constraints coming from the retail market may affect the termination rate-setting behaviour of a HM in the wholesale FVCT or MVCT Market.

### Termination Rate increase pass-through

- 4.11 ComReg regulates the termination rates charged by SMP Service Providers. Accordingly, the potential scope for increases in termination rates and retail price increases due to termination rate increase pass-through, is limited. Absent regulation, ComReg is of the preliminary view that SMP Service Providers would have both the means and the incentive to set termination rate charges at supra-competitive levels, given that no effective demand-side or supply-side substitutes exist for the termination of calls to a subscriber on a given network, as discussed in greater detail in Section 5.<sup>133</sup> Service Providers would accordingly appear to face little or no effective competitive constraints on the pricing behaviour. Taking the example of existing termination rates detailed in openeir's STRPL,<sup>134</sup> it is notable that MTRs set by the Unregulated MSPs (Virgin Media and iD Mobile) are considerably higher than the MTRs set by the 2012 SMP MSPs which are subject to price control obligations.<sup>135</sup>
- 4.12 It is important, however, to recall that termination rates are charged at the wholesale level, and therefore form only one component of the various costs which contribute to the retail cost to a subscriber of making a telephone call. It is therefore likely that, even if termination rates were passed through to retail call costs, taking regulated termination rates as a proxy for competitive termination rates, can constitute a small proportion of the retail cost of making a call. The level of pass-through will also depend on the intensity of competition at the retail level. For example, faced with a strong competitor who had the ability to absorb an termination rate increase (and not pass it through into higher retail prices), a competing Service Provider would need to consider, in response to a termination rate increase, the degree to which it would raise its retail prices for calls and the likely impact that this would have on the potential for its subscribers to switch to a competing Service Provider. Where a decision was made not to pass on the termination rate increase, it would nevertheless represent a cost to the business. Table 7 sets out the impact on regulated MSP retail out-of-bundle call charges for off-net mobile calls of a 10% SSNIP of MTRs (assuming that 100% of the MTR is passed through to the retail rate).

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<sup>133</sup> Please see in Section 5 FVCT Demand Side Substitution 5.101 to 5.112 and FVCT Supply side substitution 5.113 to 5.142 and MVCT Demand Side Substitution 5.201 to 5.207 and MVCT Supply Side Substitution 5.208 to 5.231.

<sup>134</sup> The STRPL (Switched Transit Routing and Price List) is a document published by openeir, Eircom's wholesale business. According to page 7 thereof, it "contains details of the services terminating on the networks of Authorised Operators who have requested openeir to open number ranges that have been granted to them by the National regulator in the Numbering Plan."

<sup>135</sup> See 5.205 and 5.206 in section 5.



4.13 Table 7, Table 8 and Table 9 show billpay per minute out-of-bundle call charges for an off-net call to another Irish subscriber, as reported on each Service Provider's website, as well as reported in the openeir STRPL. The tables show that, *ceteris paribus*, assuming full pass-through, a 10% SSNIP of termination rates leads to increases in retail call charges of under 1% in all cases. This illustrative example suggests that termination rates, even when fully passed through to retail level, constitute a small component of overall retail call costs, such that pass-through of termination rate increases of the magnitude of a SSNIP would constitute an even smaller component of overall retail call costs. However, ComReg notes that many fixed and mobile price plans now include unlimited or a set amount of minutes for off-net calls. Therefore, a per call assessment may not be determinative, in and of itself, as to the impact of termination rates or overall retail price plans. Moreover, the evidence available to ComReg suggests that unregulated termination rates are likely to be higher than regulated termination rates.

**Table 7: Impact on retail call charges of SSNIP in regulated MTRs**

Charge in cent per minute	Vodafone	Three	Eir Mobile	TMI	Lycamobile
Current MTR	0.82	0.82	0.82	0.82	0.82
Call charge <sup>136</sup>	25 <sup>137</sup>	34.56 <sup>138</sup>	30 <sup>139</sup>	32 <sup>140</sup>	29 <sup>141</sup>
MTR as % of call charge	3.3%	2.4%	2.7%	2.6%	2.8%
10% MTR SSNIP	0.082	0.082	0.082	0.082	0.082
New call charge	25.082	30.082	34.642	32.082	29.082
MTR as % of call charge	3.6%	2.6%	3%	2.8%	3.1%
% change in call charge	0.3%	0.3%	0.2%	0.3%	0.3%

<sup>136</sup> This is the charge for an out-of-bundle one minute off-net call to an Irish mobile subscriber.

<sup>137</sup>

<http://shop.vodafone.ie/shop/phonesAndPlans/phonesAndPlansHome.jsp?planType=monthly&subPage=plans&bundleSkultemId=sku3290092&subPage=plans&requestid=1361871>

<sup>138</sup> <http://www.three.ie/pdf/current-priceguide.pdf>

<sup>139</sup> <https://www.eir.ie/mobile/bill-pay/>

<sup>140</sup> <https://www.tescomobile.ie/help-centre/Your-Plan>

<sup>141</sup> <https://www.lycamobile.ie/en/nationalrates>

**Table 8: Impact on retail call charges of SSNIP in regulated FTRs**

Charge in cent per minute	Eircom	BT	Magnet	Virgin
Current FTR	0.072	0.072	0.072	0.072
Call charge <sup>142</sup>	9 <sup>143</sup>	3.9 <sup>144</sup>	3 <sup>145</sup>	4.5 <sup>146</sup>
FTR as % of call charge	0.8%	1.8%	2.4%	1.6%
10% FTR SSNIP	0.0072	0.0072	0.0072	0.0072
New call charge	9.0072	3.9072	3.0072	4.5072
FTR as % of call charge	0.88%	2.03%	2.63 %	1.76%
% change in call charge	0.08%	0.18%	0.23%	0.16%

**Table 9: Impact on retail call charges of SSNIP in unregulated MTRs**

Charge in cent per minute	Virgin Media	iD Mobile
Current MTR	2.6	1.89
Call charge <sup>147</sup>	25 <sup>148</sup>	35 <sup>149</sup>
MTR as % of call charge	10.4%	5.4%
10% MTR SSNIP	0.26	0.189
New call charge	25.26	35.189
MTR as % of call charge	11.3%	5.9%
% change in call charge	0.9%	0.5%

<sup>142</sup> This is the charge for an out-of-bundle one minute off-net call to an Irish fixed subscriber.

<sup>143</sup> [https://www.eircom.ie/opencms/export/sites/default/.content/pdf/pricing/call\\_rate\\_information.pdf](https://www.eircom.ie/opencms/export/sites/default/.content/pdf/pricing/call_rate_information.pdf) Calls are subject to a set-up fee of an additional 33c.

<sup>144</sup> [https://www.btireland.com/wp-content/uploads/2016/02/bt\\_consumer\\_TandCs\\_services-and-charges-02.pdf](https://www.btireland.com/wp-content/uploads/2016/02/bt_consumer_TandCs_services-and-charges-02.pdf)

<sup>145</sup> <https://www.magnet.ie/business/wp-content/uploads/sites/2/2016/04/magnet-Pricing-Guide-New-April2016.pdf> Calls are subject to a set-up fee of an additional 13c.

<sup>146</sup> [https://www.virginmedia.ie/pdf/standard\\_call\\_rates\\_may\\_2016.pdf](https://www.virginmedia.ie/pdf/standard_call_rates_may_2016.pdf) Calls are subject to a set-up fee of an additional 20c.

<sup>147</sup> This is the charge for an out-of-bundle one minute off-net call to an Irish mobile subscriber.

<sup>148</sup> <https://www.virginmedia.ie/pdf/Mobile/july/mobile-standard-rates-online-july-2017.pdf>

<sup>149</sup> <https://www.idmobile.ie/out-of-plan-charges>

- 4.14 Service Providers have typically not increased their termination rates in recent years. In the case of FTRs, 18 of 26 FSPs have retained their FTRs at the same level over the course of the reporting period set out in the openair STRPL (i.e. from as early as 2000 in the case of some FSPs), while 8 FSPs have reduced their FTRs over the same period by between 53% and 93%, 7 of whom have done so as a consequence of regulatory SMP-based price control obligations.
- 4.15 In the case of MSPs, cent per minute MTRs have fallen by between 77% and 94% over the reporting period – in the case of the 2012 SMP MSPs, pursuant to regulatory price control requirements.
- 4.16 Accordingly, given the fact that most termination rates are regulated, and also given that, in almost all circumstances, termination rates have been static or falling in recent years, ComReg is of the preliminary view that all termination rate increases are passed through to retail prices, in the context of a SSNIP, the pass through of termination rates increases above the competitive level is not likely to lead to significant increases in retail charges. Consumer reactions to such price changes need to be considered in this context. Such increases would likely be limited in magnitude, relative to per-call prices as set out above, given that termination rates account for a small proportion of overall retail prices.

### **Calling party reactions**

- 4.17 As the impact of any increase in termination rates is felt by the subscriber of the originating Service Provider (subject to the degree of pass-through to retail prices), it is possible that calling party subscribers could react to termination rate-driven retail price increases in a number of ways, including:
- (a) Substituting an off-net call to a fixed line phone or mobile with a viable alternative means of communication (e.g. SMS text message, call to an on-net mobile or other fixed line phone, communicate using OTT applications via voice calls or instant messaging etc.);
  - (b) Reducing the length of calls made to the called party's Service Provider against which we are examining demand-side response (that increased the termination rate which gave rise to the retail call price increase);
  - (c) Reducing the number of calls made to the called party's Service Provider that increased the termination rate which gave rise to the retail call price increase; and/or
  - (d) Ceasing the use of retail telephony services altogether or switching services to the called party's Service Provider, thereby availing of possibly cheaper on-net calls with this Service Provider.
- 4.18 The likelihood that the calling party would react in any of the above ways depends on a number of factors such as the calling party's:
- (a) Awareness of the identity of the called party's Service Provider that increased the termination rate;

- (b) Awareness of the costs of making a RFVC or RMVC in general, and the cost of calling subscribers of the Service Provider that increased its termination rate in particular; and
  - (c) Ability to change calling behaviour and/or switch to any viable substitute products, along with the frequency with which they would do this.
- 4.19 Each of the non-exhaustive possibilities set out above would, due to the CPP principle, primarily impact the retail revenues of the calling party's Service Provider. However, where subscribers' changes in behaviour result in reductions in call volumes to the Service Provider which increased its termination rate, it could also result in a loss of wholesale termination (and other) revenues for that called party's Service Provider.

### **Called party reactions**

- 4.20 If a called party were concerned that an increase in its Service Provider's termination rates could result in fewer people calling them<sup>150</sup> (as a result of the termination rate pass-through to the retail call charges levied by the originating Service Providers on their subscribers), the called party could potentially constrain the termination rate price-setting behaviour of its own Service Provider. Called party behaviours which could impact their Service Provider's termination rate price setting behaviour include:
- (a) Substituting the receipt of a call with a viable alternative means of communication;
  - (b) Reducing the length of received calls;
  - (c) Not taking the call and then phoning the calling party back; and/or
  - (d) Cancelling their subscription/switching Service Provider.
- 4.21 The likelihood that the called party would react in any of the above ways depends on a number of factors, including:
- (a) Awareness of the identity of the calling party's Service Provider;
  - (b) Awareness of the cost faced by the calling party when calling them; and
  - (c) Ability to change their call receiving behaviour and/or switch to any viable products which may be substitutes for receiving a call, along with the frequency with which they would do this.
- 4.22 In paragraphs 4.122 to 4.245 factors that are likely to impact the degree to which subscribers could react to changes in the RFVC and RMVC arising due to an increase in termination rates above the competitive price level are considered (i.e. factors that are likely to affect retail demand-side substitution). ComReg then goes on to consider the strength of supply-side substitution in paragraphs 4.246 to 4.248.

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<sup>150</sup> Call externalities arise due to the fact that the recipient of a phone call may derive utility from the receipt of a phone call, assuming that the externality is positive. Economic theory indicates that the presence of (positive) call externalities suggests that the price of phone calls should be reduced.

## Retail pricing structures for retail telephony services

### RFVC pricing structures

- 4.23 RFVC pricing structures typically reflect the following characteristics, which may influence the way in which consumers make RFVCs:<sup>151</sup>
- (a) FSPs typically offer an entry-level RFVC tariff plan as well as more expensive tariff plans that include extra call minutes;
  - (b) Market research indicates that specific or unlimited amounts of free local/national minutes to other fixed line phones are included with the majority of RFVC tariff plans;<sup>152</sup>
  - (c) Specific or unlimited amounts of free minutes for calls to selected international destinations are included with numerous RFVC tariff plans;
  - (d) Calls purchased outside of any allocation of minutes included in the tariff or bundle typically incur an extra charge which normally involves a call set-up charge and then a fee per minute of the call.
  - (e) The cost of making local/national calls<sup>153</sup> does not tend to vary based on the fixed voice network called i.e. prices for on-net and off-net fixed-to-fixed calls are the same;
  - (f) The cost of making local/national calls can vary depending on the time of the day when the call is made;<sup>154</sup> and
  - (g) In some entry-level RFVC tariff plans inclusive minutes only apply for calls made during off-peak times.<sup>155</sup>
- 4.24 The characteristics set out above are largely consistent with RFVC tariff plans for SME customers, although, unlike residential RFVC tariff plans, entry level business tariff plans typically contain a set amount of inclusive free minutes and sometimes unlimited minutes for calls to mobiles.
- 4.25 RFVC pricing structures for calls to mobiles typically exhibit the following characteristics:

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<sup>151</sup> ComReg has carried out a non-exhaustive, but extensive, review of RFVC tariff plan price structures, as well as the structure of mobile phone tariff charges for calling fixed line phones. This has involved an examination of, for example, whether the cost of calling a fixed line phone differs by network called and by time of day called. The output for this review is summarised in Annex 3.

<sup>152</sup> The 2016 Market Research indicated that approximately 90% of residential and 48% of SME RFVC subscribers have set or unlimited amount of minutes for calls to local fixed line phones. 80% of responding residential and 42% of SME RFVC subscribers also indicated that their tariff plan includes set or unlimited amount of minutes for calls to national fixed line phones. See slide 63 and 66 of the 2016 FVCT Consumer Market Research and slide 46 and 49 of the 2016 FVCT SME Market Research.

<sup>153</sup> The cost of making local and national fixed-to-fixed calls also tends to be the same.

<sup>154</sup> For example, Eircom applies different prices for local/national calls made during the daytime, evenings and weekends. See <https://www.eir.ie/opencms/export/sites/default/.content/pdf/pricing/Part2.1.pdf>.

<sup>155</sup> Eircom and Sky both include off-peak calls only in their entry level RFVC tariffs (eir Talk Off Peak Mobile and Sky Talk Freetime). Tariff information retrieved from company websites on 18 July 2017.

- (a) FSPs may include a specific or unlimited amount of minutes for calls to mobiles – typically observed in more expensive RFVC tariff plans;<sup>156</sup>
  - (b) Specific or unlimited amount of free minutes for calls to mobiles are included in some RFVC tariff plans;<sup>157</sup>
  - (c) Where a FSP also operates on the RMVC market, it may offer favourable pricing terms for calls to mobile subscribers on its own mobile network;<sup>158</sup> and
  - (d) The cost of calls purchased outside of any allocated inclusive minutes (or bundle) typically differ according to whether it is a call to a landline or a mobile, with calls to mobiles generally being more expensive.
- 4.26 The pricing structures of RFVC and, in particular, uniformity of prices for on-net and off-net fixed-to-fixed calls and the inclusion of specific or unlimited amounts of free on-net and off-net local and national call minutes mean that the identity of the called party's FSP is unlikely to impact on the calling party's behaviour.<sup>159</sup>
- 4.27 Furthermore, such pricing structures imply that RFVC subscribers may be less sensitive to the identity of the called party's FSP when selecting their own FSP (i.e. they would be less concerned whether the numbers they frequently call are subscribed to the same FSP, since there is no obvious cost saving to be made by subscribing to the same FSP). When making calls to RFVC subscribers, the calling party is also unlikely to be concerned about the distinction between local and national calls, since the geographic location of the destination fixed line phone within the State will not impact the call cost.

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<sup>156</sup> The prevalence of tariffs including the unlimited amount of minutes to any mobile network in the State has increased since the previous market review. In this regard, the 2016 Market Research indicated that approximately 20% of surveyed consumers and 30% of SMEs that purchase RFVC have unlimited amount of minutes for calls to mobiles included in their tariffs. See slide 70 of the 2016 FVCT Market Consumer Research and slide 52 of the 2016 FVCT Market SME Research.

<sup>157</sup> For example, Eircom Talk Unlimited Mobile & UK or Virgin Media Anytime Mobile tariff plans advertised by Eircom and [Virgin Media](#) (Tariff information retrieved from company websites on 18 July 2017). The 2016 Market Research indicated that approximately 54% of surveyed residential and 45% of SME RFVC subscribers have set or unlimited amount of minutes for calls to mobile phones. See slide 70 of the 2016 FVCT Consumer Market Research and slide 52 of the 2016 FVCT SME Market Research.

<sup>158</sup> For example, the price of a call from Eircom's RFVC subscriber to an Eir Mobile subscriber is less than one third of the price of a call to a subscriber of any other MSP. See <https://www.eir.ie/opencms/export/sites/default/.content/pdf/pricing/Part2.1.pdf>. Information retrieved from company website on 20 September 2017.

<sup>159</sup> If calls to local/national fixed line phones are free, or if there is very large amount of inclusive minutes in the package, the cost of calling subscribers of specific FSPs is not likely to influence the number of calls made to one particular FSP over another.

### RMVC pricing structures

4.28 RMVC pricing structures typically reflect the following characteristics, which may influence the way in which consumers make RMVCs:<sup>160</sup>

- (a) MSPs typically offer an entry level RMVC tariff plan as well as more expensive tariff plans that include extra call minutes and/or data allowances<sup>161</sup> and/or number of SMS messages;
- (b) Specific or unlimited amounts<sup>162</sup> of free minutes are included within both prepay and billpay tariffs and can be used for calls to any network, i.e. they are not restricted to particular networks, although a distinction between inclusive on-net and off-net calls is made in some tariffs;<sup>163</sup>
- (c) Calls purchased outside of any allocation of minutes included in the tariff or bundle typically incur an extra charge which normally involves a call set-up charge<sup>164</sup> and then a fee per minute of the call. Alternatively, consumers have the option of purchasing an add-on to their standard tariff which contains a set amount of minutes for calls (at an additional cost);
- (d) The cost of off-net calls (or text messages) for both prepay and billpay mobile customers does not tend to vary based on the network called i.e. prices charged for calling other mobile or fixed voice networks do not vary;
- (e) The cost of in-bundle calls (or SMS text messages) for both prepay and billpay customers does not tend to vary based on the time of day called i.e. is invariant between peak and non-peak times;
- (f) Some operators have altered aspects of their plans in seeming response to the introduction of 'Roam Like At Home' across the EU in June 2017. These changes have drawn critical comment from the European Commission;<sup>165</sup> and

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<sup>160</sup> ComReg has carried out a non-exhaustive, but extensive, review of RMVC tariff plan price structures, as well as the structure of fixed line phone plan costs for calling mobile phones. This involved an examination of, for example, whether the cost of calling mobiles differs by network called, and by time of day. The output for this review is summarised in Annex 3.

<sup>161</sup> Data usage on mobile networks has increased since the last market review, and MSPs have increased the inclusive amount of data that can be used without incurring extra charges for both prepay and billpay tariffs.

<sup>162</sup> The prevalence of tariffs including an unlimited amount of minutes to any network in the State has increased significantly since the previous market review. Unlimited plans are typically subject to a fair usage policy which specifies a maximum amount of minutes that can be used within the billing period. In this regard, the 2016 Market Research indicated that 37% of surveyed customers with a prepay tariff and 64% of surveyed customers with a billpay tariff have unlimited amounts of minutes included in their tariffs. See slides 37 and 53 of the 2016 MVCT Market Consumer Research.

<sup>163</sup> For example, see Mini Flex Max 100 tariff advertised by Three. Tariff information retrieved from website on 20 September 2017.

<sup>164</sup> It should be noted that a call set-up charge is not levied by all MSPs.

<sup>165</sup> EU roaming rules: European Commission statement. Available online at [http://ec.europa.eu/ireland/node/3679\\_ga](http://ec.europa.eu/ireland/node/3679_ga)

- (g) Some operators have introduced offers which allow subscribers to use various data-intensive apps on their phones without consuming their data allowance.<sup>166</sup>
- 4.29 The characteristics set out above are broadly consistent with RMVC tariffs for SME consumers, which typically include specific or unlimited amounts of international and/or roaming minutes.
- 4.30 RMVC pricing structures for calls to fixed line phones exhibit the following characteristics:
- MSPs do not differentiate prices of mobile-to-fixed calls based on the fixed voice network called i.e. prices for all local/national calls to fixed line phones are the same;
  - Allocations of ‘any-network’ minutes are typically included within both prepay and billpay tariff plans, and can be used to make calls to local or national fixed lines, or mobile phones;
  - MSPs typically charge the same price for off-net mobile-to-mobile and mobile-to fixed calls; and
  - Prices for calling fixed lines are typically higher than the analogous call types on fixed networks.<sup>167</sup>
- 4.31 The effect of mobile tariff plans, as well as the limited consumer awareness of the difference between prices charged for on-net calls, off-net mobile calls and calls to fixed lines, as well as calls made during peak and off-peak periods, is likely to directly influence retail subscribers’ behaviour. This applies, for instance, where the consumer is unaware of the price distinction between on-net and off-net calls, or peak and off-peak calls, due to those calls being included within their ‘inclusive minutes’ in their plan. This suggests that low awareness levels may arise due to a lack of price differentiation between call categories in MSPs’ price plans. If there is no difference in the prices charged for these categories of calls, then it is not likely to be a key factor in driving the usage of off-net calls to subscribers of one particular MSP over another, or at particular times of day.

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<sup>166</sup> This practice is known as ‘zero rating’. For example, as of 20 September 2017, 48 (a brand of Three) offers unlimited WhatsApp use, while eir Mobile offers subscribers unlimited access to YouTube, Facebook, Snapchat, Instagram, Twitter, WhatsApp, Viber and Pokémon Go without consuming their data allowance.

<sup>167</sup> For example, as of 18 July 2017, Eircom’s base rates for out-of-package local & national daytime calls was 9c per minute, compared to 34.56c per minute for Three. See <https://www.eir.ie/opencms/export/sites/default/content/pdf/pricing/Part2.1.pdf> and <http://www.three.ie/pdf/current-priceguide.pdf>. Similarly, Vodafone charges 4.5c for out of bundle local and national calls made from a fixed line phone and 35c for out of bundle mobile-to-fixed line calls on prepay tariff plans. (See <https://www.vodafone.ie/home/broadband/charges> and <http://www.vodafone.ie/pay-as-you-go-plans/charges/>).



- 4.32 The higher cost of calling mobiles from fixed line phones may potentially impact the degree of price sensitivity of fixed line calling parties when making such calls.<sup>168</sup> Similarly, price sensitive consumers with both mobile and fixed line phones that are aware of the costs of calling mobiles may be in a position to segment their calling behaviour to maximise the perceived value of their price plans i.e. a consumer may use their mobile phone to call another mobile phone and use their fixed line phone to call other fixed line phones.<sup>169</sup>
- 4.33 The cost of calling a mobile from a fixed line remains higher than calling fixed-to-fixed or mobile-to-mobile, however, many FSPs offer various types of bundles,<sup>170</sup> which typically include mobile call minutes, and unlimited calls to any network (fixed or mobile).

## Subscribers' Network Awareness

### Calling Party Network Awareness

- 4.34 For the calling party to be in a position to react to retail price increases stemming from an increase in termination rates, they would need to be aware of the identity of the Service Provider of the person they are calling, where the call is off-net.<sup>171</sup> Consumers are more likely to recognise whether they are calling a fixed line or a mobile phone by reference to the numbering prefix, as all mobile number ranges in the State commence with a '08X' prefix. Prior to the inception of mobile number portability ('MNP')<sup>172</sup> in 2003, the 'X' in the mobile number range corresponded to a particular MSP (for example, Vodafone numbers commenced with 087 etc.), thus making the identification of the called party's MSP relatively easy. However, MNP has diminished the ability to rely on the leading digits of a mobile phone number to ascertain the called party's MSP.

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<sup>168</sup> However, the increased prevalence of tariffs including unlimited minutes to mobile networks could potentially decrease the price sensitivity of fixed line calling parties where they do not incur the cost of calls purchased outside of any allocation of minutes.

<sup>169</sup> As noted in Figure 5 above, voice call traffic volumes indicate that fixed line phones are more often used within a household to make calls to other landlines, while mobiles are more often used to make calls to other mobiles.

<sup>170</sup> <https://www.eir.ie/phone/>

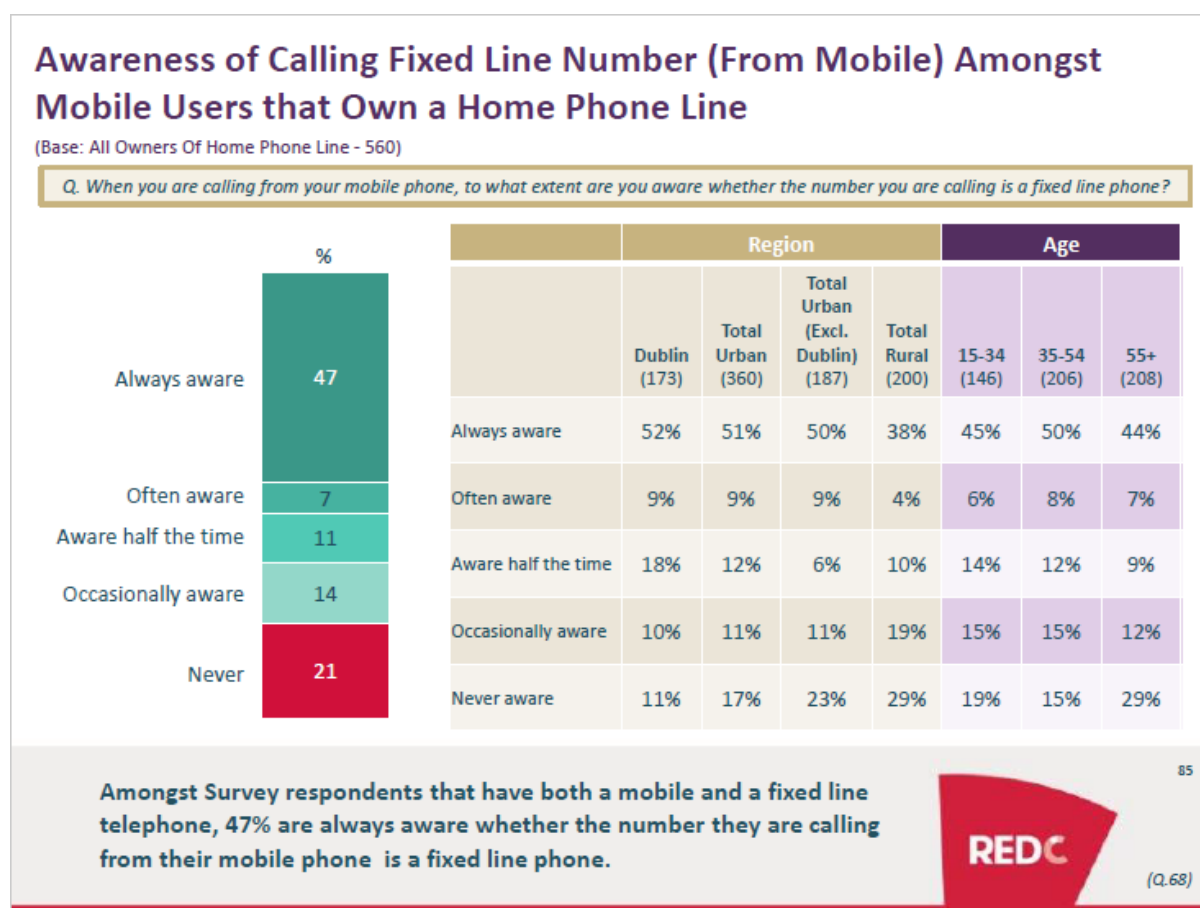
<sup>171</sup> Tariff plans have evolved in such a manner in recent years that there is no longer a significant distinction between on-net and off-net minutes. Reductions in the levels of termination rates may have been a contributory factor to networks no longer differentiating call prices based on the network called.

<sup>172</sup> A MNP facility allows customers to retain their mobile number when switching MSP.

**Calling Party FSP Network Awareness**

4.35 Unlike mobile numbers, Geographic Numbers associated with RFVC do not give users the ability to distinguish between the fixed line networks being called. As part of the 2016 Market Research, ComReg asked residential and SME RMVC subscribers to indicate the extent to which they are aware whether they are making calls to a fixed line phone from their mobile phone. Figure 27 shows that 47% of responding consumer RMVC subscribers who also own a fixed line are always aware that they are making a call to a fixed line phone from their mobile phone, while 21% are never aware.<sup>173</sup> It is important to note, however, that stated called network awareness relates to fixed line networks in general, rather than awareness of specific FSP networks. In ComReg’s preliminary view, awareness of the specific fixed voice network being called is likely to be lower.<sup>174</sup>

**Figure 27: Residential RMVC subscriber awareness of making calls to fixed line phone**

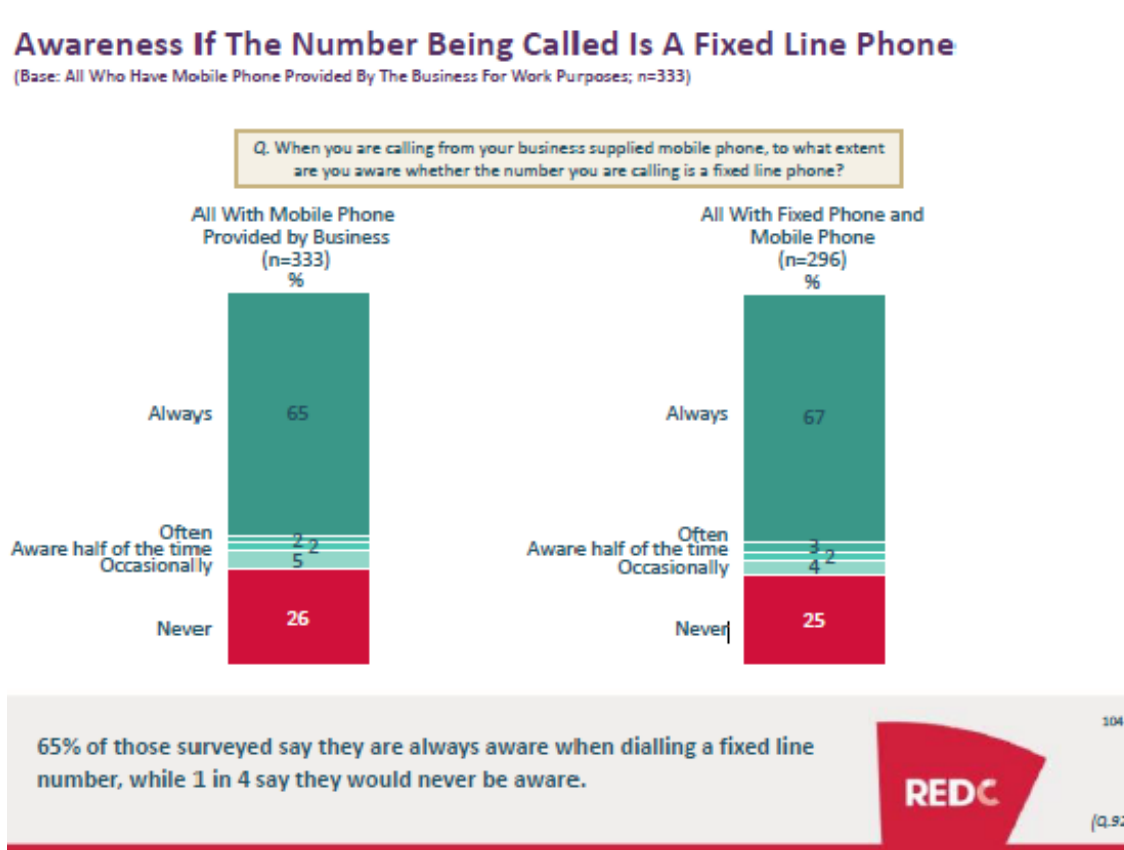


<sup>173</sup> See slide 84 of the 2016 MVCT Market Consumer Research.

<sup>174</sup> ComReg notes that 46% of responding residential RFVC subscribers indicated that they are never aware of the calling party’s FSP identity when receiving calls on their fixed line phone. Thus, it is likely that these respondents are also unaware of the FSP’s identity when making calls to fixed line phones.

4.36 Responding SMEs purchasing RMVC were asked a similar question. Figure 28 illustrates that 25% of respondents are never aware whether they are calling a fixed line or a mobile network when making calls from their mobile phone.<sup>175</sup>

**Figure 28: SME RMVC subscribers’ awareness of making calls to a fixed line phone**



4.37 ComReg has also reviewed market research provided by Service Providers in response to SIRs<sup>176</sup> for information relating to calling parties’ levels of network awareness. Apart from general awareness of whether the network being called is fixed or mobile, little additional evidence was provided in these responses to indicate that calling parties are generally aware of the specific FSP network being called.

<sup>175</sup> 2016 SME MVCT Market Research, slide 104.

<sup>176</sup> In July 2016, pursuant to its powers under section 13D(1) of the Communications Regulation Act 2002 (as amended), ComReg issued a series of information requests to FSPs and MSPs. ComReg received all responses to those SIRs by September 2016

**Calling Party MSP Network Awareness**

- 4.38 On average, just under 400,000<sup>177</sup> mobile numbers have been ported annually since the 2012 MVCT Decision. Thus, the called party's mobile number in itself is no longer a reliable means of identifying the called party's MSP. Moreover, aside from MNP, all four MVNOS (TMI, Virgin Media, Lycamobile and iD Mobile) have been assigned numbers using the 089 prefix. The allocation of numbers within a single prefix to multiple operators again reduces the likelihood of a calling party being able to identify the network of the called party.<sup>178</sup>
- 4.39 Notwithstanding the volume of MNP, it is possible that a consumer has remained with (or returned to) their original MSP and, therefore, in a number of cases, the use of their mobile number could allow the calling party correctly to identify the called party's underlying MSP. In this regard, ComReg notes that the 2016 Market Research indicated a low incidence of switching with 73% of responding consumers<sup>179</sup> and 54% of responding SMEs<sup>180</sup> noting that they have never switched their MSP.
- 4.40 As part of the 2016 Market Research, ComReg asked residential and SME RMVC subscribers to indicate the extent to which they are aware of which mobile network<sup>181</sup> they are calling.

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<sup>177</sup> From ComReg QKDR

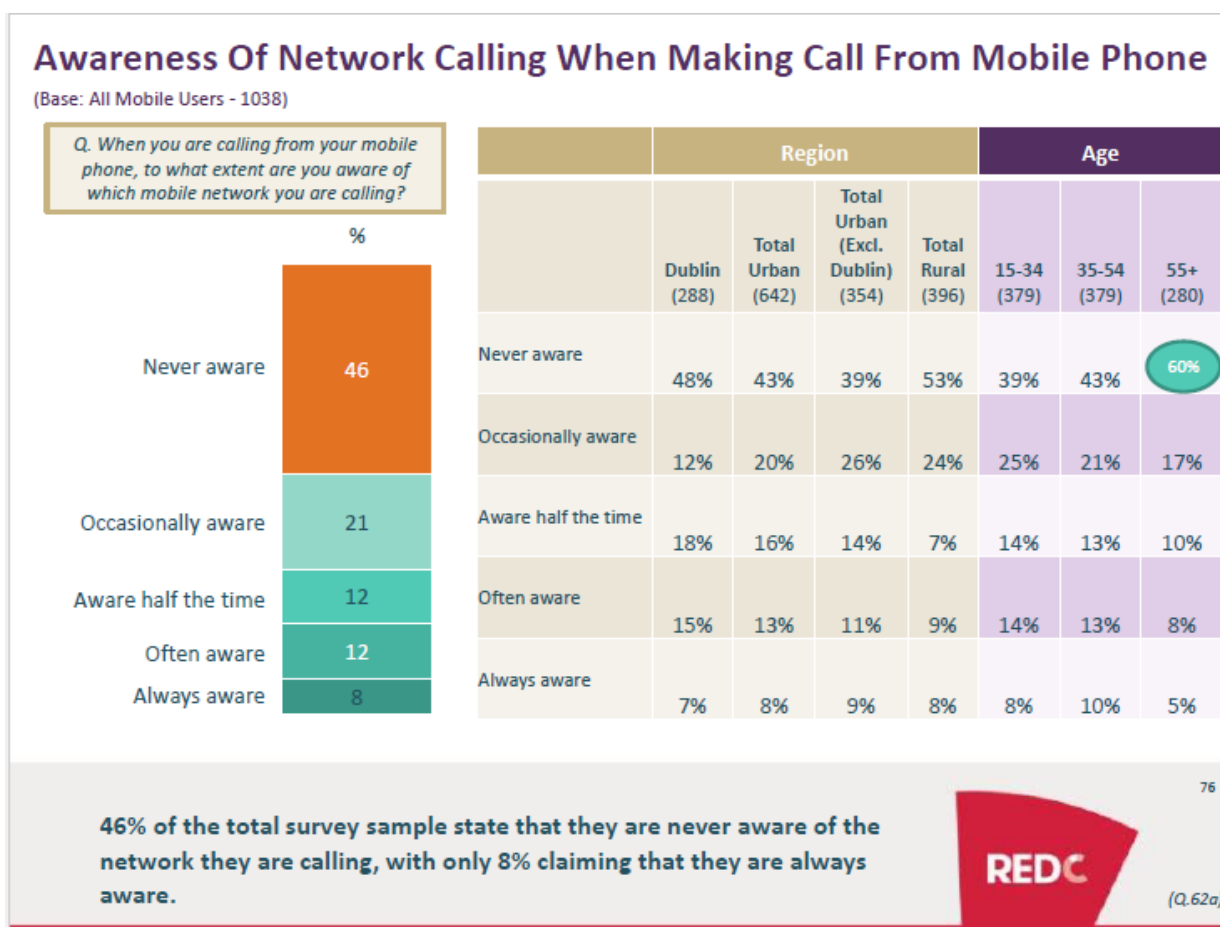
<sup>178</sup> The assigned 089 number ranges are 2000000 to 2799999 and 4000000 and 4999999 in the case of TMI, 6000000 to 6299999 in the case of Virgin Media, 9400000 to 9899999 in the case of Lycamobile, and 7000000 to 7199999 in the case of iD Mobile.

<sup>179</sup> 2016 MVCT Consumer Market Research, slide 100.

<sup>180</sup> 2016 MVCT SME Market Research, slide 7.

<sup>181</sup> The term 'mobile network' which was employed in the 2016 Market Research is equivalent to the term 'MSP' used in this Consultation.

**Figure 29: Mobile Consumers – awareness of called mobile network**



- 4.41 Figure 29 illustrates that in relation to all calls made by surveyed RMVC consumers, 33% of respondents indicated that they were aware of the mobile network being called half the time or occasionally, with 46% of respondents indicating that they were never aware of the mobile network being called.<sup>182</sup>
- 4.42 RMVC consumers were also asked about their awareness of the mobile network called for frequently dialled numbers, with 34% of respondents noting they are aware of the mobile network called half the time or less, and 38% indicating that they were never aware of the mobile network being called.<sup>183</sup>
- 4.43 Consumers were also asked to identify the main reasons for not always being aware of the network of the called mobile. 36% of respondents stated they do not have visibility of the called number network, as calls are made from the mobile phone’s address book, while 29% of respondents noted that they do not think about the network that the called party is on.<sup>184</sup>

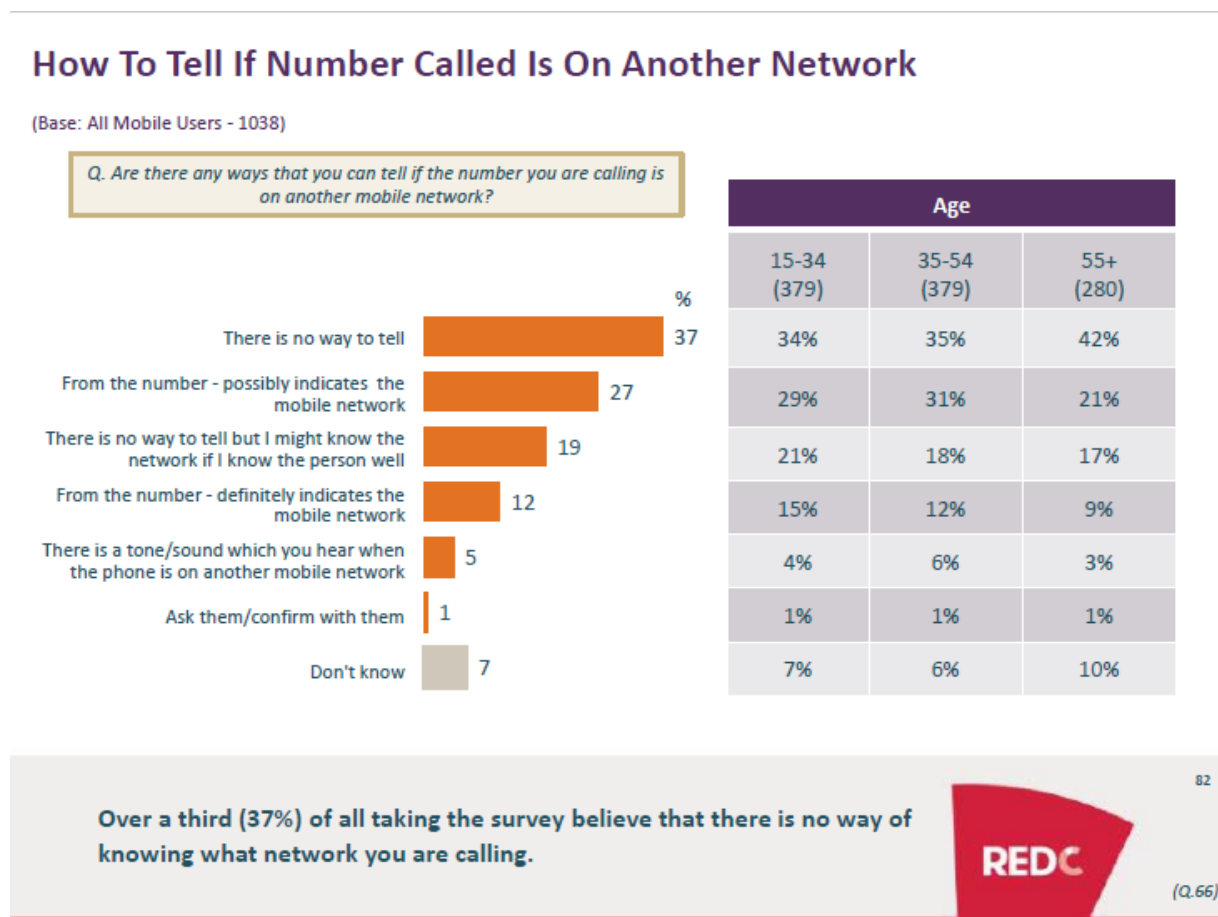
<sup>182</sup> 2016 Consumer MVCT Market Research, slide 76.

<sup>183</sup> 2016 Consumer MVCT Market Research, slide 77.

<sup>184</sup> 2016 Consumer MVCT Market Research, slide 78.

4.44 RMVC consumers were also asked<sup>185</sup> if they could identify whether the mobile number they were calling was on another network (i.e. off-net mobile calls). As illustrated in Figure 30, 37% of respondents indicated that it is not possible to differentiate between on-net and off-net calls. 27% of responding consumers indicated that the mobile number may possibly identify the mobile network called. Just 5% of respondents correctly indicated the existence of the network alert tone<sup>186</sup> played to the caller prior to an off-net call being connected.

**Figure 30: Possible means of called network identification – Consumer respondents’ views**



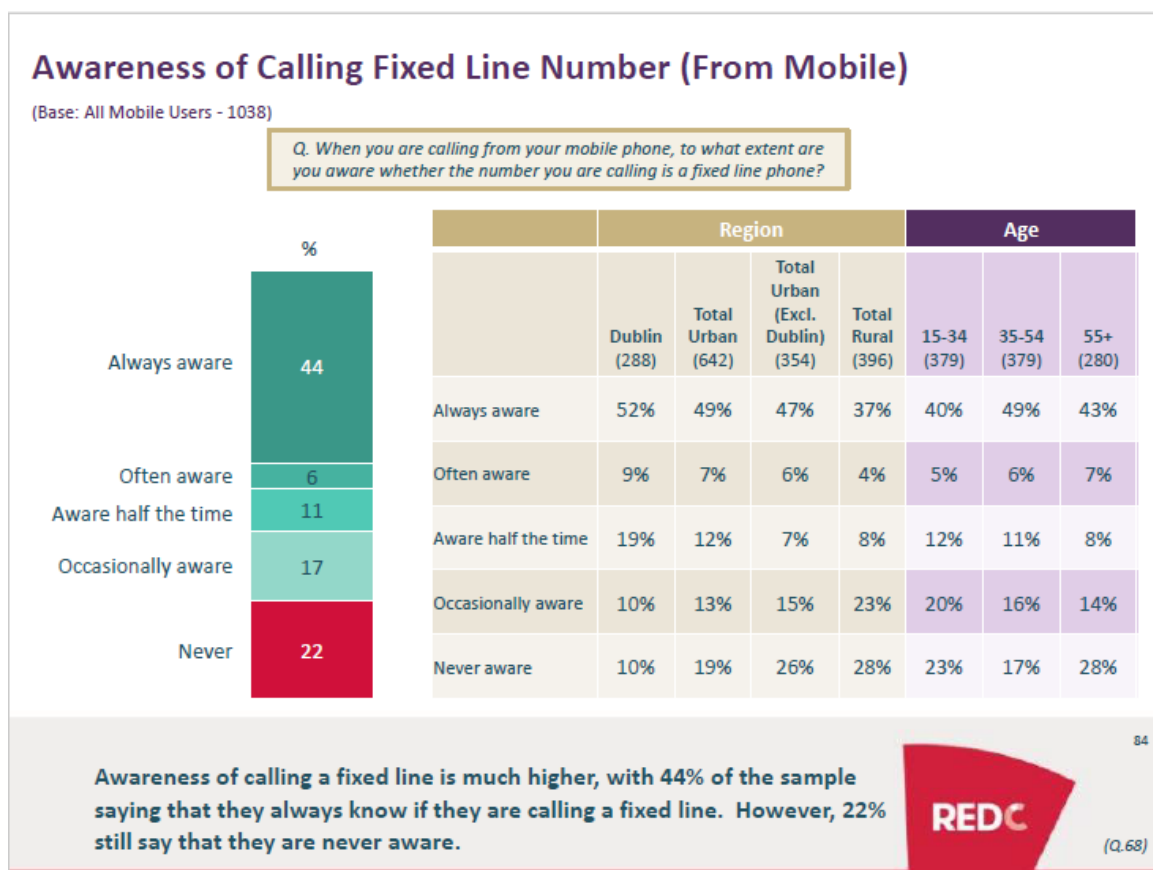
4.45 Figure 31 illustrates the level of awareness among RMVC consumers when calling a landline number. 44% of responding consumers are always aware that they are calling a landline number, while 22% are never aware.<sup>187</sup> It is important to note, however, that stated awareness relates to fixed line networks in general, rather than awareness of specific FSPs called.

<sup>185</sup> 2016 Consumer MVCT Market Research, slide 82.

<sup>186</sup> This is a ‘pip’ tone implemented at a network level which sounds while the call is being connected, but before it is answered. It definitively tells the caller that they are making an off-net call.

<sup>187</sup> A general lack of concern about the awareness of whether a called number is a fixed line number was the most commonly cited reason. See slide 86 of the 2016 MVCT Market Consumer Research.

**Figure 31: Consumer respondents' awareness of calling a landline number**



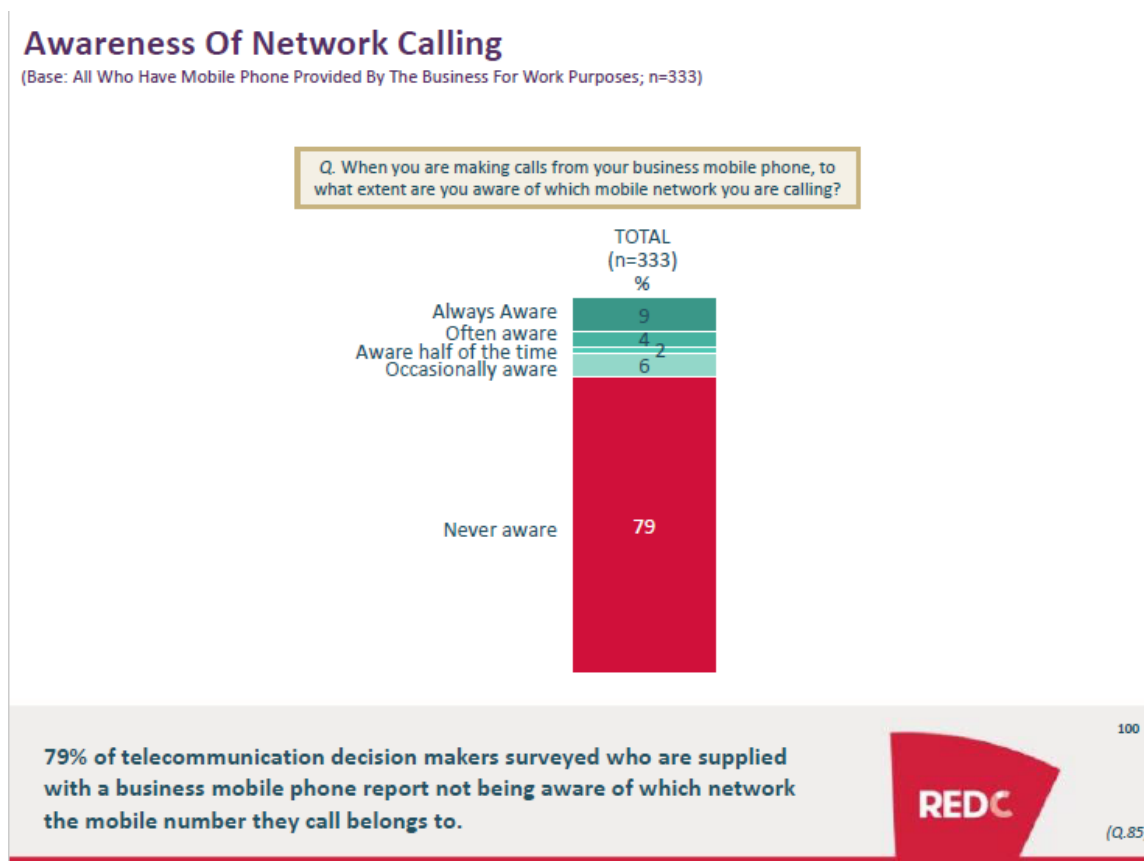
4.46 SME RMVC respondents were asked similar questions relating to their awareness of the networks being called.<sup>188</sup> In respect of calls to mobiles, the majority of SME decision makers indicated that they were never aware (79%) or occasionally aware (6%) of the mobile network being called (see Figure 32 below).<sup>189</sup> 26% of SME respondents indicated that, when using their mobile phone, they were not aware whether the number they were calling is a fixed line phone.<sup>190</sup>

<sup>188</sup> It should be noted that the SME survey was targeted at those individuals within a company responsible for choosing their current MSP ('Decision makers'). Network awareness and pricing survey questions were only targeted at SME Decision Makers who had been provided with a company mobile phone (with the decision maker's views being taken as broadly representative of individual employee use.)

<sup>189</sup> 2016 SME MVCT Market Research, slide 100.

<sup>190</sup> 2016 SME MVCT Market Research, slide 104.

**Figure 32: SME respondents' awareness of identity of called mobile network**



4.47 In considering ways<sup>191</sup> in which SME respondents could tell if they were making an off-net call to a mobile network (see Figure 33), 68% of respondents stated that there is no way to tell, with just 10% indicating awareness of the network alert tone played to the caller prior to an off-net mobile call being connected.

<sup>191</sup> 2016 SME MVCT Market Research, slide 102.



**Figure 33: Possible means of identifying called network – SME respondents' views**



4.48 ComReg has also reviewed market research provided by Service Providers in response to Statutory Information Requests for information relating to calling parties' levels of network awareness. Little additional evidence was provided as part of the responses which would indicate that called parties are generally aware of the specific MSP network originating the call. Accordingly, this aspect does not materially inform the analysis above.

#### **Conclusion on Calling Party MSP and FSP Network Awareness**

4.49 Having regard to the analysis in paragraphs 4.38 to 4.48 above, ComReg notes that both residential and SME RMVC and RFVC subscribers have relatively low levels of awareness of the identity of the called party's Service Provider. Consequently, ComReg is of the preliminary view that this lack of awareness is likely to constrain the ability and incentive of calling parties to react to changes in the retail price of calls to subscribers of specific Service Providers.

#### **Called Party Network Awareness**

4.50 If the called party is concerned about the costs faced by callers to them, it may be in a position to exert a constraint on the termination rate-setting behaviour of its own Service Provider. To do so, the called party would need to be:

- Concerned about the cost faced by the calling party; and
- Aware of the identity of the calling party's Service Provider.

**FSP Network Awareness by Called Party**

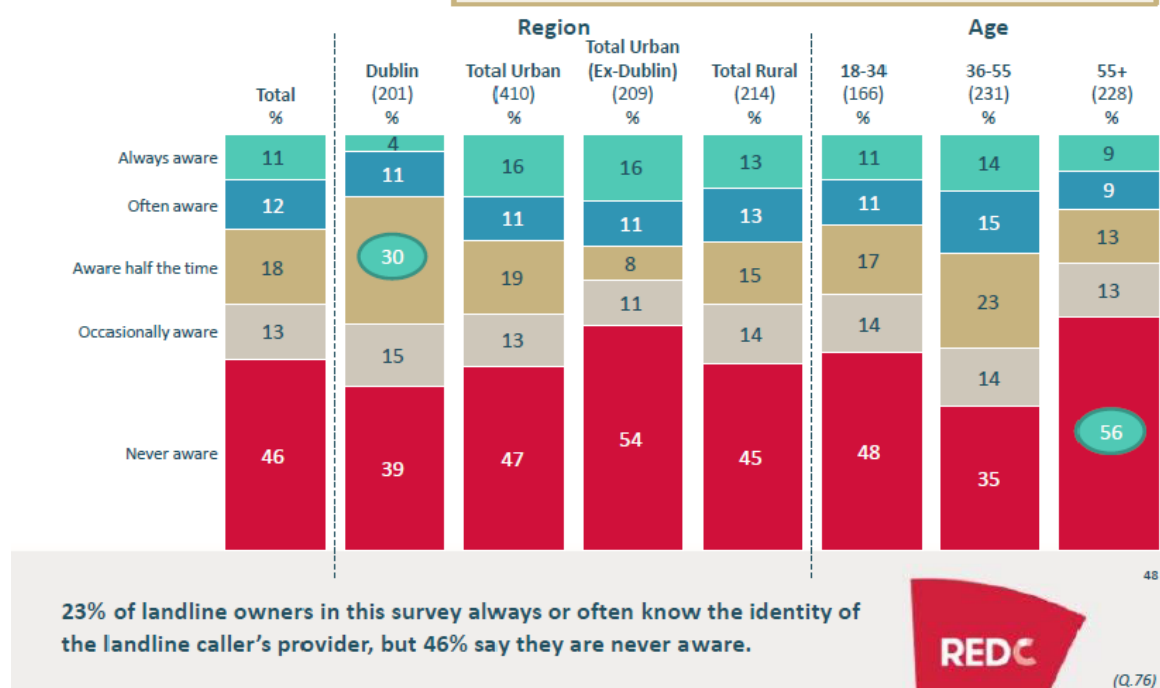
4.51 As part of the 2016 Market Research, ComReg sought to ascertain residential consumers’ awareness of the calling party’s network identity when in receipt of calls. As illustrated in Figure 34 below, 46% of residential RFVC subscribers were never aware of the identity of the calling party’s FSP.<sup>192</sup> Similarly, 50% of responding residential RFVC subscribers are never aware of the calling party’s MSP identity.<sup>193</sup>

**Figure 34: Residential RFVC subscriber awareness of calling party fixed voice network when receiving calls**

**Awareness of Landline Caller Provider (When Landline Call is Received to Landline)**

(Base: All confirming they have fixed line - 625)

*Q. When you receive a call to your fixed line phone from another fixed line phone, do you know the identity of the landline provider where the call is being made from?*



4.52 ComReg notes that survey data indicate that, when called, RFVC subscribers have low levels of awareness of the identity of the calling party’s Service Provider. While some called parties will be aware of the calling party’s Service Provider (for example, where a caller is well-known to them through family or social circumstances), the overall level of expressed awareness may be somewhat overstated, given that fixed line phone numbers in themselves cannot identify the calling party’s FSP.

<sup>192</sup> 2016 Consumer FVCT Market Research, slide 48.

<sup>193</sup> 2016 Consumer FVCT Market Research, slide 50.

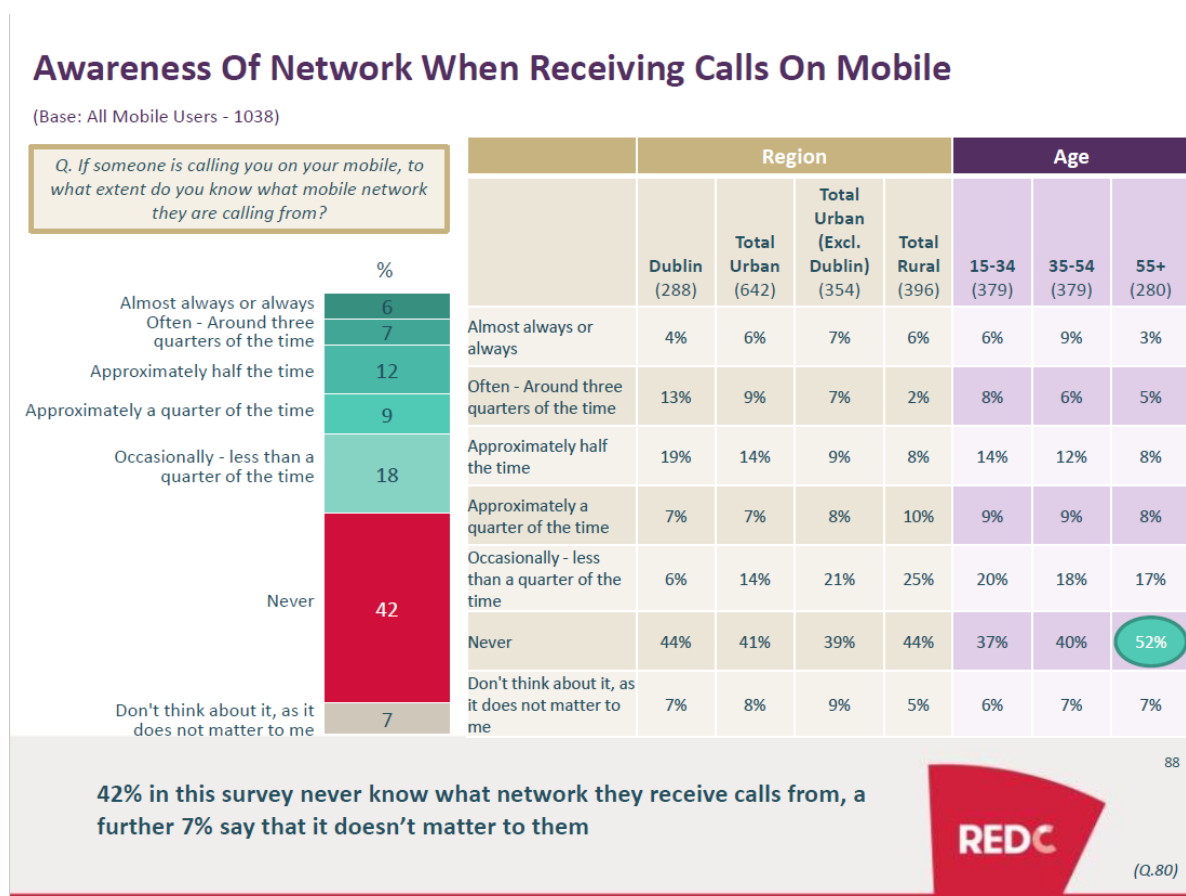
**MSP Network Awareness by Called Party**

4.53 If the called party is concerned about the costs faced by callers to them, it may be in a position to exert a constraint on the MTR price-setting behaviour of its own MSP. In order to be able to do this, the called party would need to be:

- Concerned about the cost faced by the calling party; and
- Aware of the identity of the calling party’s Service Provider.

4.54 MNP impacts the called party’s ability to identify the calling party’s MSP. As part of the 2016 Market Research, ComReg sought to ascertain residential and SME consumer awareness of the calling party’s network identity when in receipt of calls. As illustrated in Figure 35, 42% of residential RMVC consumers were never aware of the identity of the calling party’s MSP with an additional 7% stating that the identity of the calling party’s MSP did not matter to them.<sup>194</sup>

**Figure 35: Consumer awareness of calling party’s mobile network when receiving calls**



<sup>194</sup> 2016 Consumer MVCT Market Research, slide 88.

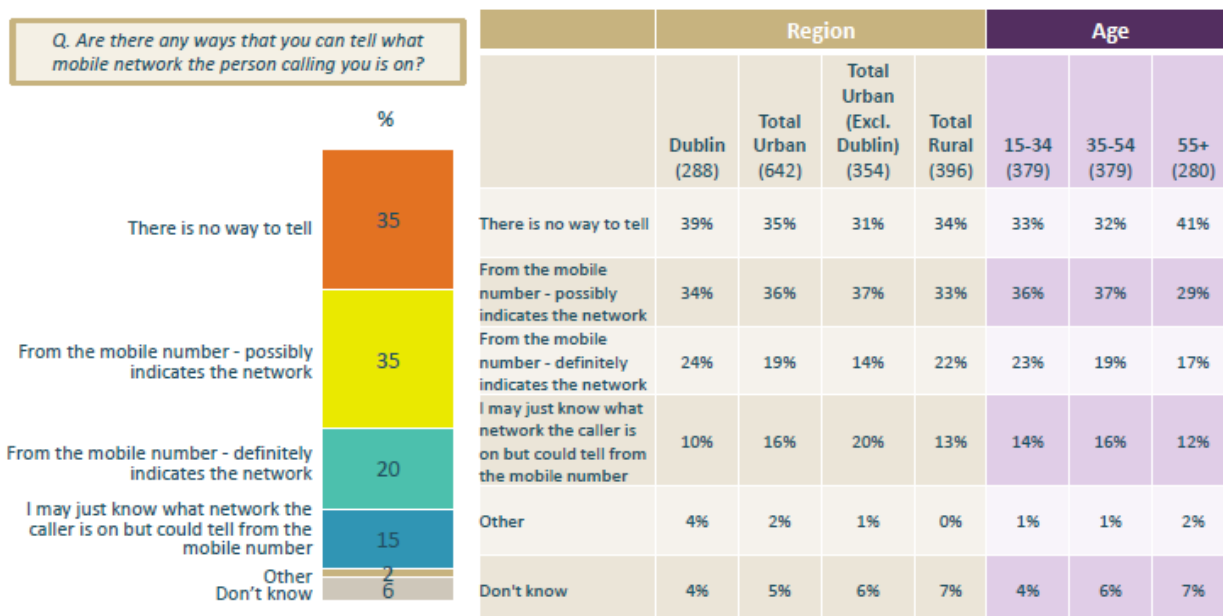
4.55 Consumers were also asked if they could identify whether incoming calls originated on a fixed or mobile network. In response, 19% stated that they were never aware of whether the call originated on a fixed or mobile network with a further 7% noting that it did not matter to them. The remaining 74% stated varying degrees of awareness.<sup>195</sup>

4.56 Respondents were asked<sup>196</sup> if there are ways in which they could tell if the calls which they receive come from a mobile network other than their own (i.e. off-net mobile calls). Figure 36 demonstrates that 35% of consumer respondents reported that there is no way to identify a calling party’s MSP, while 20% indicated that they could definitely rely on the mobile number to identify the calling mobile network.

**Figure 36: Possible ways of calling network identification – Consumer respondents’ views**

### Awareness of Ways Of Knowing Network Person Is Calling You On

(Base: All Mobile Users - 1038)



More than a third (35%) of the survey sample claim that there is no way to tell what network a call is coming from when receiving a call. 34% feel that the mobile number will possibly indicate the network it is on, while 1 in 5 (20%) are convinced that you can definitively tell the network by the number.



<sup>195</sup> 2016 Consumer MVCT Market Research, slide 89.

<sup>196</sup> 2016 Consumer MVCT Market Research, slide 90.

- 4.57 Responding SMEs were asked similar questions regarding their level of awareness with respect to incoming mobile calls.<sup>197</sup> 53% of respondents stated that they are never aware of the identity of the calling party's mobile network, 35% stated it did not matter to them and the remaining 12% had varying degrees of awareness. 72% of responding SMEs noted that there is no way to identify the calling party's MSP, while 14% indicated that they could definitely rely on the mobile number to identify the mobile network called.<sup>198</sup>
- 4.58 Having regard to the discussion above, ComReg notes that called RMVC subscribers tend to have low levels of awareness of the identity of the calling party's Service Provider. While some called parties will be aware of the calling party's Service Provider (for example, where a caller is well-known to them through family or social circumstances), the overall level of expressed awareness may be somewhat overstated, given that mobile numbers themselves are no longer a reliable means for identifying a calling party's MSP, due to MNP.
- 4.59 ComReg has also reviewed market research provided by Service Providers in response to SIRs for information relating to called parties' levels of network awareness. Little additional evidence was provided as part of the responses which would indicate that called parties are generally aware of the specific MSP network originating the call. Consequently, this aspect does not materially inform the analysis above.

### **Conclusion on Called Party MSP and FSP Network Awareness**

- 4.60 ComReg is of the preliminary view that the relatively low level of calling parties' network awareness among called parties is likely to constrain their ability and incentive to react to price changes. Accordingly, calling party network awareness is not likely to act as an effective indirect demand-side constraint on the pricing conduct of a Service Provider in respect of termination rates at the wholesale level.

### **Subscribers' awareness of call costs**

- 4.61 In order for the calling party to be in a position to react to changes in the retail price of calls to subscribers on specific voice networks, or to react to those retail price increases stemming from an increase in termination rates, they would also need to be aware of retail call costs, including the costs associated with calling particular Service Providers.

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<sup>197</sup> 2016 SME MVCT Market Research, slide 107.

<sup>198</sup> 2016 SME MVCT Market Research, slide 109.

### **RFVC subscribers' awareness of call costs**

4.62 As part of the 2016 Market Research, ComReg asked<sup>199</sup> residential RFVC subscribers to indicate the extent to which they were aware of the costs of making calls from their fixed line phones. Table 10 shows that 80% of responding residential RFVC subscribers either do not know, or are unsure of, the costs of making (both local and national) fixed-to-fixed calls.

**Table 10: Residential RFVC subscribers' stated knowledge of call costs**

	<b>Do not know or not sure</b>	<b>Know the approximate cost</b>	<b>Know the exact cost</b>	<b>Other</b>
<b>Local calls</b>	80%	16%	4%	1%
<b>National calls</b>	80%	16%	4%	0%

4.63 Responding SME RFVC subscribers expressed even lower levels of cost awareness with 93% of responding SMEs stating that they do not know, or are unsure of, the costs of making (both local and national) fixed-to-fixed calls.<sup>200</sup>

**Table 11: SME RFVC subscribers' stated knowledge of call costs**

	<b>Do not know or not sure</b>	<b>Know the approximate cost</b>	<b>Know the exact cost</b>
<b>Local calls</b>	93%	3%	4%
<b>National calls</b>	93%	4%	3%

4.64 Given the relatively low awareness of call costs when making calls, ComReg is of the preliminary view that called parties are similarly likely to have low awareness of call costs incurred by those calling them.

4.65 In paragraph 4.92 ComReg analyses whether call costs are important to residential and SME RFVC subscribers when selecting their FSP, due to the possibility that cost awareness may be higher at the time of purchasing RFVC or switching FSP.

4.66 ComReg is accordingly of the preliminary view that residential and SME RFVC subscribers have low overall levels of awareness regarding the specific costs associated with making calls to fixed line phones.

<sup>199</sup> 2016 Consumer FVCT Market Research, slides 65 and 68.

<sup>200</sup> 2016 SME FVCT Market Research, slides 48 and 51.

### **RMVC subscribers' awareness of call costs**

4.67 As part of the 2016 Market Research, ComReg asked<sup>201</sup> RMVC subscribers to indicate the extent to which they were aware of the costs of making calls from their mobile phones. Table 12 shows that responding residential consumers indicated that 87% of prepay and 91% of billpay users either do not know, or are unsure of, the costs of doing so.

**Table 12: Consumer respondents' stated knowledge of the call costs**

	<b>Do not know or not sure of the cost of calls</b>	<b>Know the approximate cost of calls</b>	<b>Know the exact cost of calls</b>
<b>Prepay respondents</b>	87%	9%	4%
<b>Billpay respondents</b>	91%	6%	2%

4.68 Responding consumers that stated approximate or exact knowledge of calls costs were then asked to provide cost estimates,<sup>202</sup> and to give their impressions of call costing, which are summarised in Table 13:

**Table 13: Consumer respondents' perceptions on cost of calls from mobile phones**

<b>Prepay respondents</b>	<b>Billpay respondents</b>
<ul style="list-style-type: none"> <li>- On-net calls to mobiles are perceived as the cheapest calls.</li> <li>- No perceived difference between the cost of calling off-net mobiles and landlines.</li> <li>- 56% of respondents thought that call costs vary depending on the time or day when a call is made.</li> </ul>	<ul style="list-style-type: none"> <li>- On-net calls to mobiles are perceived as the cheapest calls.</li> <li>- Off-net calls to mobiles are perceived to be slightly more expensive than calls to landlines.</li> <li>- 47% of respondents thought that call costs vary depending on the time or day when a call is made.</li> </ul>

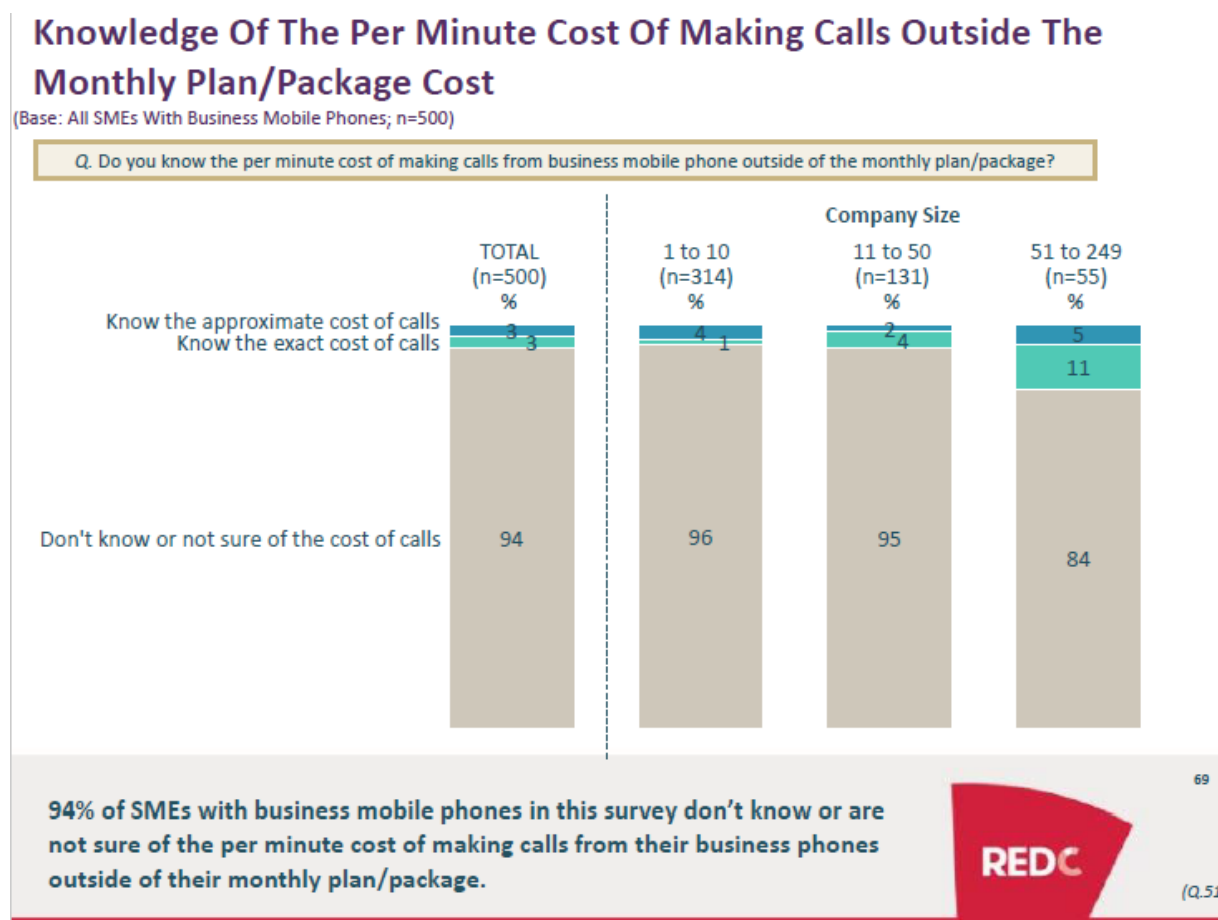
4.69 SME respondents expressed<sup>203</sup> similar levels of cost awareness as residential consumers with 94% of responding SMEs stating that they did not know, or were unsure of, the cost of calls.

<sup>201</sup> See slides 71 and 73 of the 2016 MVCT Market Consumer Research. ComReg notes that consumer knowledge of costs has decreased since the last market review where it was noted that 71% of prepay and 69% of billpay consumers stated that they did not know or were unsure of the costs of making calls and sending text messages. See also page 50 of the 2012 MVCT Consultation.

<sup>202</sup> 2016 Consumer MVCT Market Research, slides 72 and 74.

<sup>203</sup> 2016 SME MVCT Market Research, slide 69.

**Figure 37: SME respondents' stated knowledge of call costs**



- 4.70 Given the relatively low awareness of call costs when making calls, ComReg is of the preliminary view that called parties are similarly likely to have relatively low awareness of call costs incurred by those calling them.
- 4.71 Having regard to the issues set out above, ComReg is of the preliminary view that residential and SME RMVC subscribers have low overall levels of awareness regarding the specific costs associated with making calls.

**Conclusion on awareness of call costs**

- 4.72 Having regard to the above, ComReg is of the preliminary view that residential and SME RMVC and RFVC subscribers have low overall levels of awareness regarding the specific costs associated with making calls. ComReg is cognisant, however, that residential retail consumers appear to have a moderate level of awareness of the differences in the cost of making on-net and off-net calls from their mobiles, in addition to the difference in cost when making calls from mobile to (i) other mobiles and (ii) landlines.



4.73 These low levels of cost awareness, rather than indicating that call costs are not important to RMVC subscribers, may be attributed to RMVC pricing structures<sup>204</sup> as, in circumstances where prices for on-net and off-net calls tend not to differ (or are free), it may lessen the importance that consumers attach to call cost awareness. Given the relatively low awareness of call costs when making calls, ComReg is of the preliminary view that called parties are similarly likely to have low awareness of call costs incurred by those calling them.

### **Subscribers' sensitivities to call costs**

4.74 RFVC and RMVC subscriber sensitivities to call costs may differ based on individual preferences, calling patterns and costs arising under particular tariff plans. Subscriber sensitivities to call costs may also vary over time. For example, cost awareness may be front-loaded at the decision-making stage when consumers are switching Service Provider, implying that less weight is attached to the costs of calls once subscribers have chosen a Service Provider, or when changing tariff plans with an existing Service Provider – particularly where customers are still operating within a minimum term contract, where tariffs allow unlimited calls to be made, or where prices for all call types are homogeneous. Furthermore, it may take some time for consumers to react to price increases where, for example, the impact of a change in price may not be realised until a bill is received.

4.75 However, as noted above, in order for either the called party or the calling party to react to retail price increases generally, or retail price increases stemming from the pass through of a wholesale SSNIP in WVCT by a particular Service Provider to subscribers, end users would need to be sufficiently concerned about costs such that it warrants some change in their behaviour.

### **RFVC subscriber sensitivity**

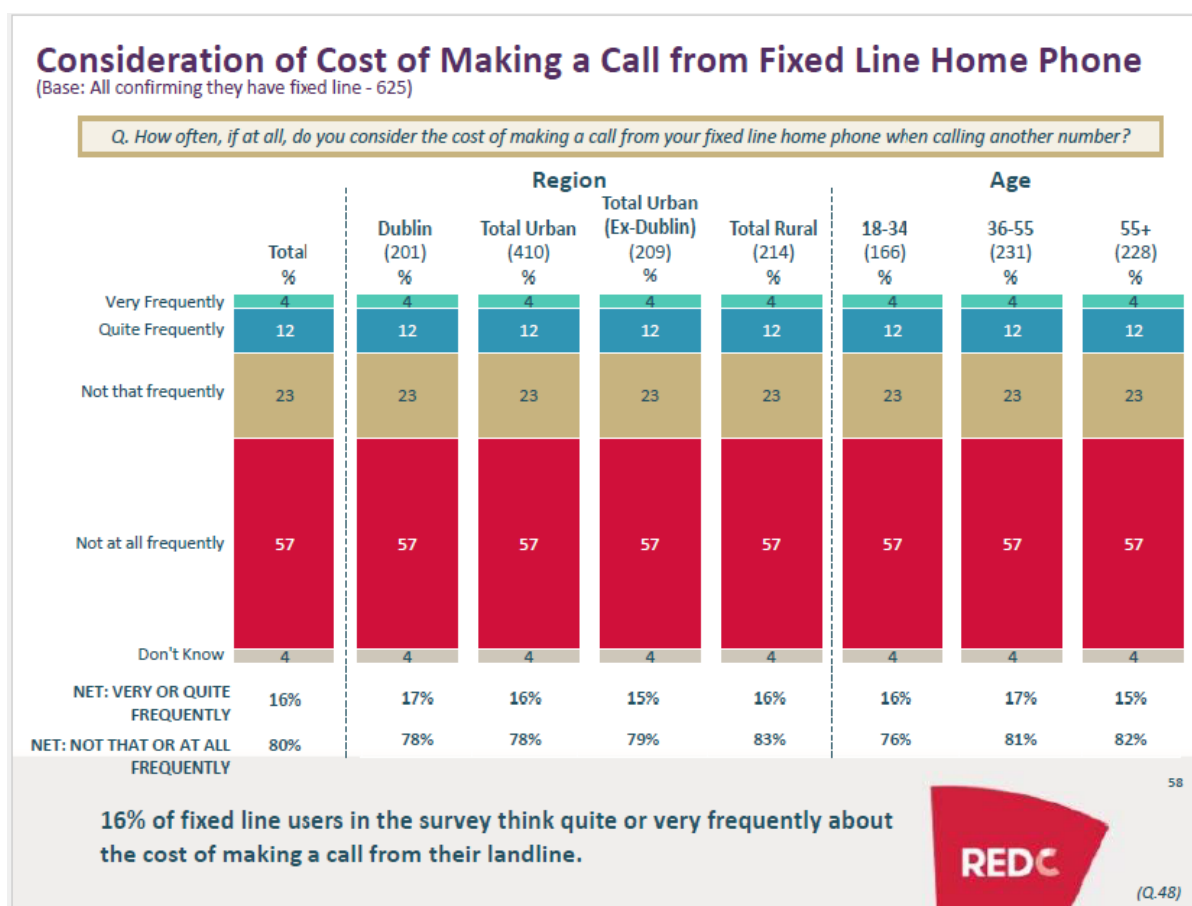
4.76 In order to estimate end users' sensitivity to call costs, the 2016 Market Research asked residential RFVC subscribers whether they consider the cost of calls when making calls from fixed line phones. Figure 38 indicates that approximately 16% of residential respondents consider the cost of calls made from fixed line phones very or quite frequently.<sup>205</sup> However 80% of respondents stated that they do not consider the cost of such calls 'frequently' or 'at all'.

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<sup>204</sup> See paragraphs 4.23 to 4.30 above.

<sup>205</sup> 2016 Consumer FVCT Market Research, slide 58.

**Figure 38: Residential RFVC subscribers' cost consideration when making calls from fixed line phone**



4.77 SME respondents were asked whether they checked any particular types of phone calls when reviewing their fixed phone bills. Figure 39 illustrates that SME respondents that carry out a detailed check of their RFVC bills<sup>206</sup> are mostly interested in the aggregate cost of the bill (85% check the total cost of the bill), while 24% claim to check the cost of local/national fixed calls.<sup>207</sup>

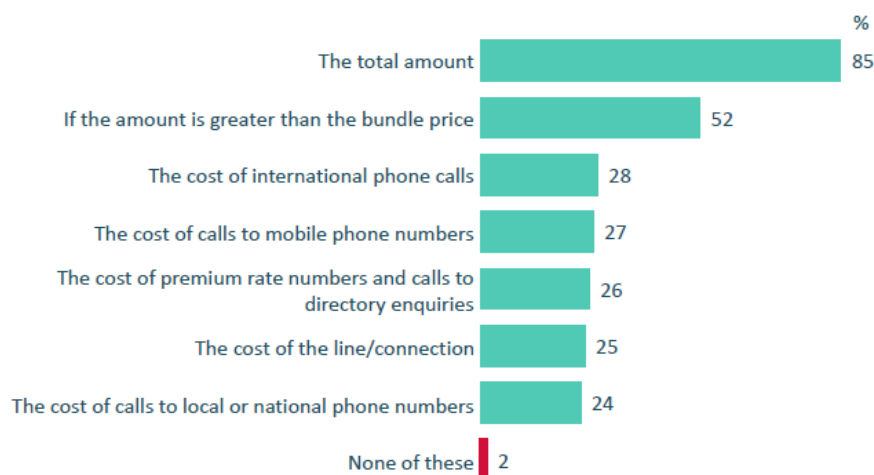
<sup>206</sup> 65% (n=291) of all responding SMEs purchasing RFVC.

<sup>207</sup> 2016 SME FVCT Market Research, slide 57.

**Figure 39: Types of costs examined by SME RFVC subscribers in their bills****What Items Are Checked of Fixed Line Phone Bill**

(Base: All SMEs With Fixed Line Services checking phone bill, n=291)

Q. Which of the following are checked on each bill?



Of the SME's in the survey who check their phone bill the total amount is the most likely item checked with 85% of SME's stating this.

REDC

(Q.51)

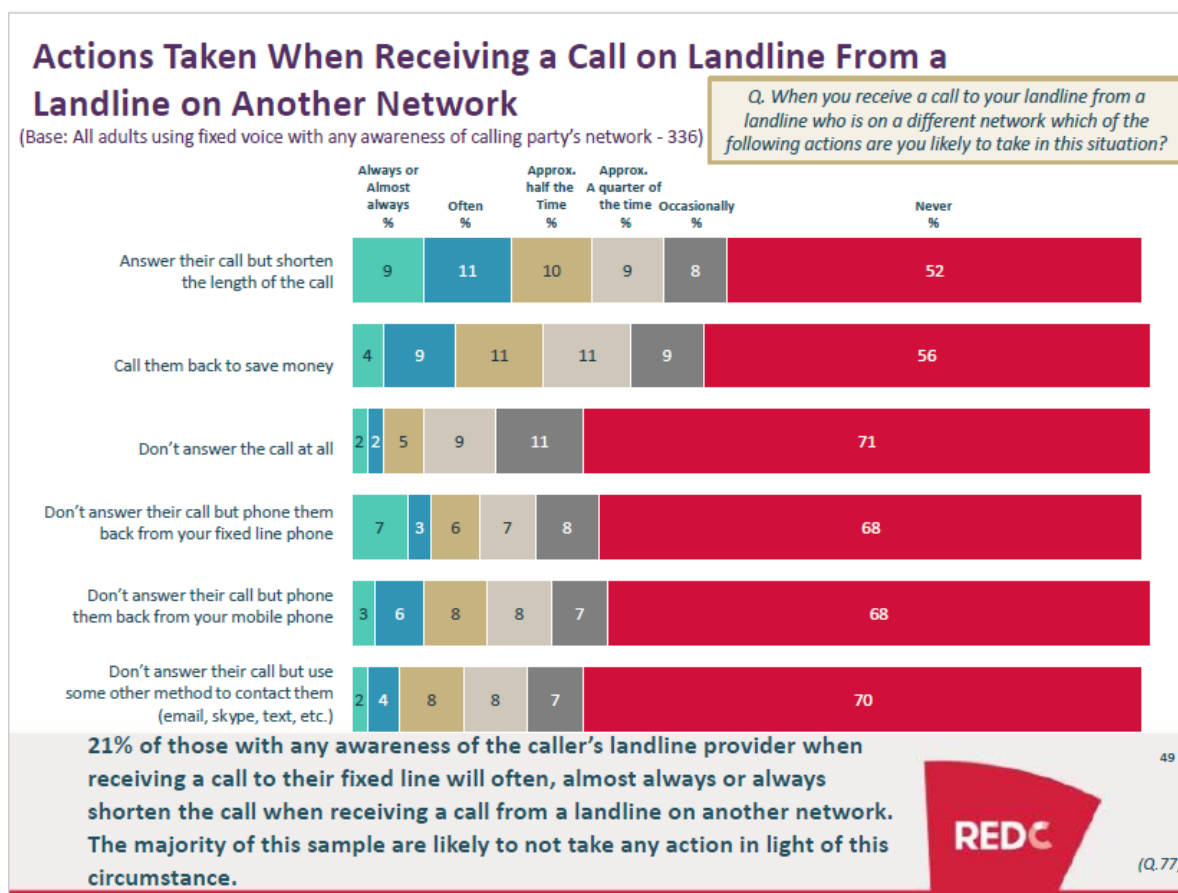
4.78 The 2016 Market Research also explored residential and SME respondents' sensitivities to the costs faced by those calling them. In particular, responding residential RFVC subscribers that indicated they were aware of the calling party's FSP identity<sup>208</sup> were asked to identify what specific behavioural change they would consider making when receiving fixed-to-fixed calls, and how often they would do it. Figure 40 shows a relatively low incidence of likely actions being taken to reduce the cost of a call for a calling party. For example, 7% of respondents indicated that they would always or almost always not answer the call and phone the calling party back instead.<sup>209</sup> Similarly, a low incidence of actions being taken to reduce the cost of a call from a mobile phone for a calling party was also observed.<sup>210</sup>

<sup>208</sup> 54% (n=336) of all respondents.

<sup>209</sup> 2016 Consumer FVCT Market Research, slide 49.

<sup>210</sup> 2016 Consumer FVCT Market Research, slide 51.

**Figure 40: Incidence of called party’s change in behaviour when receiving calls**



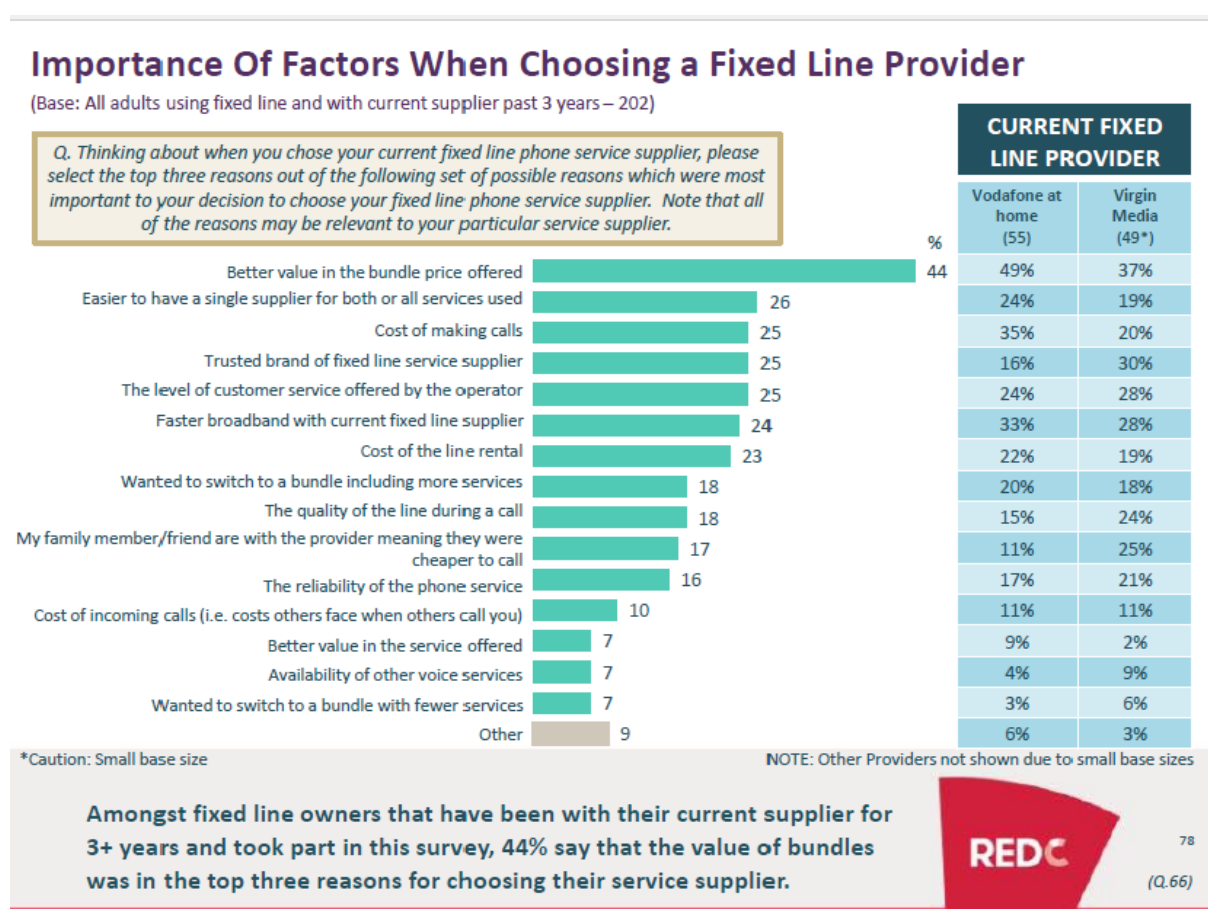
- 4.79 SME respondents purchasing RFVC were asked whether they provided a lo-call number<sup>211</sup> for use by their customers and/or employees. The majority (91%) of respondents indicated that no lo-call number was provided by their business.<sup>212</sup>
- 4.80 The evidence therefore suggests that, in general, both residential and SME RFVC subscribers tend to have low levels of concern for the cost faced by the calling party. It is ComReg’s preliminary view that the level of any consequential behavioural change in the treatment of received calls is therefore not likely to be significant.

<sup>211</sup> Provision of lo-call numbers can be indicative of SMEs’ sensitivities to call costs faced by the calling party. For example, a calling party faces no costs when dialling a Freephone (1800) number from either a fixed line or mobile phone.

<sup>212</sup> 2016 SME FVCT Market Research, slide 35.

4.81 In paragraph 4.74 ComReg noted that subscriber cost awareness and sensitivity to costs may differ over time. As part of the 2016 Market Research, ComReg asked residential RFVC subscribers who have stayed with their FSP for the last three years or less<sup>213</sup> to state the top three reasons for the selection of their current FSP. Figure 41 sets out that better value in the price of bundled services (44%), ease of dealing with single supplier for multiple services (26%) and costs of making calls (25%) were the reasons most commonly cited by responding residential RFVC subscribers when switching their FSP.<sup>214</sup> The cost of incoming calls was cited as one of the top three reasons for selecting a FSP by 10% of responding residential RFVC subscribers.

**Figure 41: Residential RFVC subscribers’ top three reasons for the selection of their current FSP**

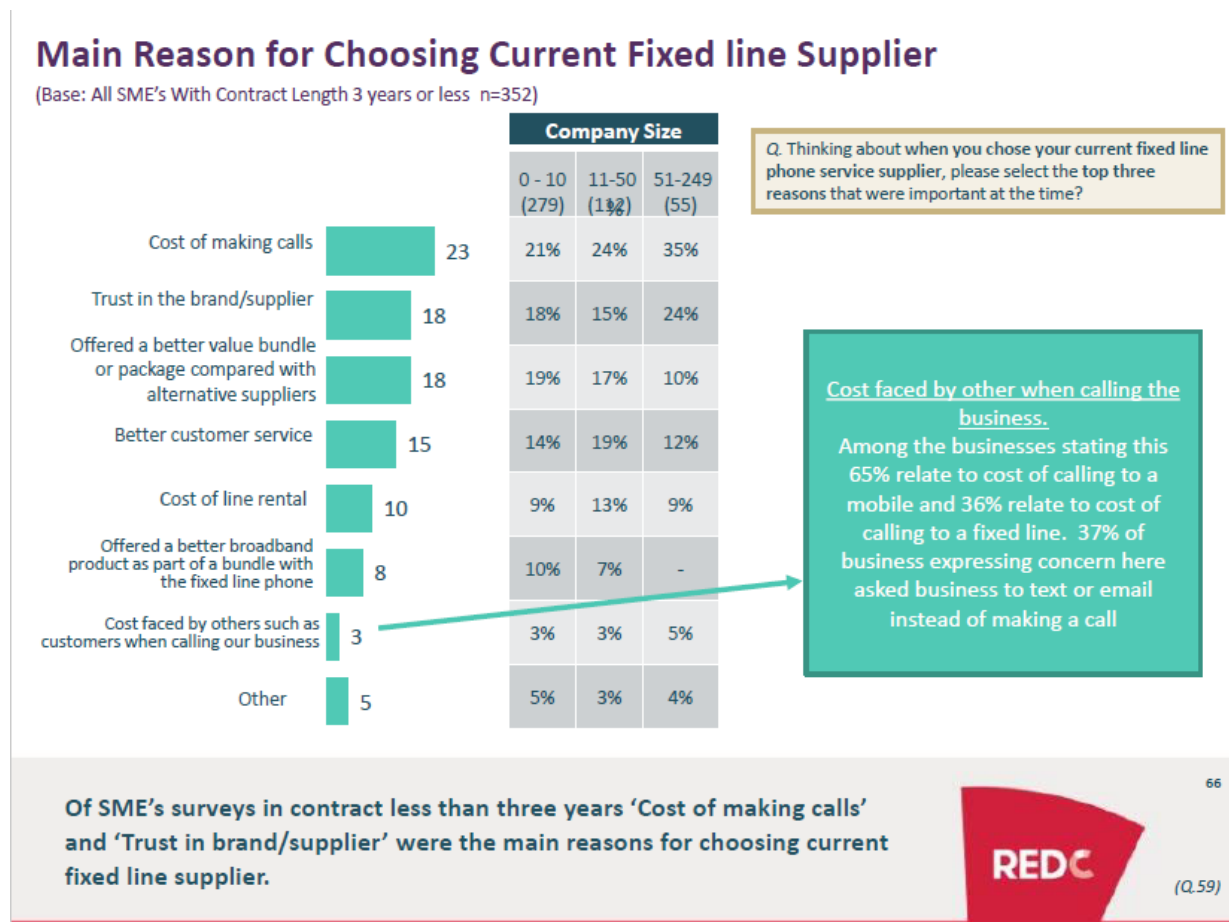


<sup>213</sup> Approximately 32% (n=202) of all responding residential RFVC subscribers.

<sup>214</sup> 2016 Consumer FVCT Market Research, slide 78.

4.82 A similar question was posed to SME RFVC subscribers that have stayed with their FSP for the last three years or less.<sup>215</sup> Figure 42 demonstrates that the cost of making calls was cited by 23% of respondents, while just 3% of respondents indicated that costs faced by the calling party (including customers) was one of the top three reasons for selecting their current FSP.<sup>216</sup>

**Figure 42: SME RFVC subscribers’ top three reasons for the selection of their current FSP**



4.83 Where FSPs provided end user market research to ComReg in response to SIRs relating to switching and churn, it generally tended to support the views expressed above, in particular, that call costs and better value were key drivers cited by consumers and SMEs for switching FSPs.

4.84 ComReg is accordingly of the preliminary view that:

<sup>215</sup> Approximately 80% (n=352) of all responding SME RFVC subscribers.

<sup>216</sup> 2016 SME FVCT Market Research, slide 66.

- (a) Overall tariff cost and the cost of making calls are likely to be important factors for consumers when selecting a FSP, primarily driven by the desire to minimise expenditure and obtain the best value for the services purchased. However, once consumers have chosen a FSP, the majority of consumers appear to be less concerned about the cost of making on-net/off-net local and/or national calls to fixed line phones, as demonstrated by generally low awareness of the individual cost of calls to local and national fixed line phones expressed by respondents to the 2016 Market Research. Furthermore, taking account of the general absence of any significant on-net/off-net retail price differentiation for calls to local/national fixed line phones, and the prevalence of unlimited or set amount of minutes for local/national calls included in RFVC tariff plans, the cost of making calls to particular FSP networks cannot be readily ascertained from retail pricing structures. Hence, the individual cost of calling specific FSPs would, therefore, not appear to influence consumer decisions when choosing their FSP.
- (b) Residential RFVC subscribers tend to have low levels of concern for costs faced by the calling party, as evidenced by a low incidence of reported behavioural change when receiving calls from fixed lines and/or mobile phones.
- (c) SME RFVC subscribers do not tend to consider the cost of making calls when using their fixed line phone. The majority of responding SME RFVC subscribers indicated a general concern with the overall cost of the telecommunications bill rather than any specific concern with the cost of individual call types. This lower level of sensitivity for off-net calls is likely to be influenced by the prevalence of RFVC tariff plans offering a specific or unlimited amount of minutes to any network.
- (d) SME RFVC subscribers are not likely to be concerned about the cost faced by calling parties, which implies that SMEs are not prone to changes in their treatment of incoming calls.<sup>217</sup> In summary, sensitivities to the costs faced by calling parties appear not to be significant.

### **RMVC subscriber sensitivity**

4.85 In order to estimate end users' sensitivity to call costs, the 2016 Market Research asked RMVC subscribers whether they consider the cost of mobile-to-mobile calls when making calls from mobile phones.<sup>218</sup> Table 14 indicates that 65% of residential consumers and 80% of SME consumers do not consider the cost of mobile-to-mobile calls when making these calls.

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<sup>217</sup> For example, by providing a low call non-Geographic Number such as 1800 for customer contacts instead of a geographic or nomadic (076) number.

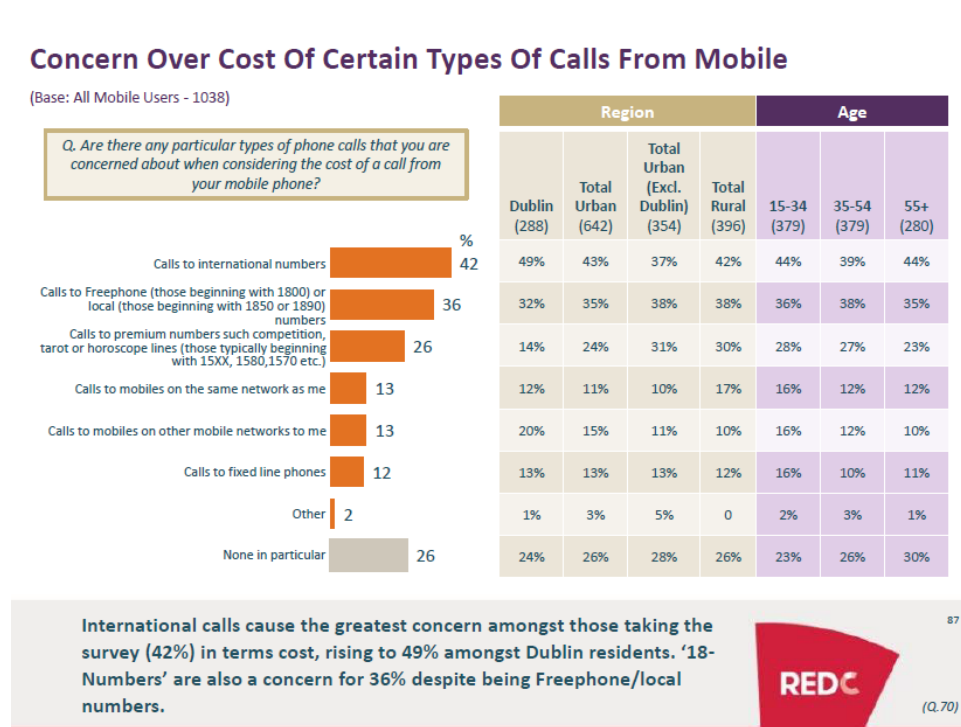
<sup>218</sup> See slide 83 of the 2016 MVCT Market Consumer Research and slide 103 of the 2016 MVCT Market SME Research. Low levels of awareness of the identity of the called party's MSP and the calling party's MSP have already been highlighted at paragraphs 4.38 to 4.48, and 4.53 to 4.59.

**Table 14: Consumer and SME cost consideration when Mobile-to-Mobile calls**

	Never	Less than 25% of the time	25% of the time	50% of the time	75% of the time or more often
<b>Residential Respondents</b>	65%	16%	7%	6%	6%
<b>SME Respondents</b>	80%	10%	1%	9%	

4.86 Residential and SME retail consumers were also asked if there are any types of phone calls that they were especially concerned about when considering the cost of making a call from a mobile phone.<sup>219</sup> In this regard, 42% of residential consumers indicated that they are concerned about the cost of calls to international numbers, with the cost of off-net calls to other mobile networks and fixed line numbers causing broadly similar levels of concern to each other, accounting for 13% and 12% of respondents, respectively. 26% of consumer respondents were not concerned about the cost of any particular call types.

**Figure 43: Consumer concern about cost of certain call types from mobiles**

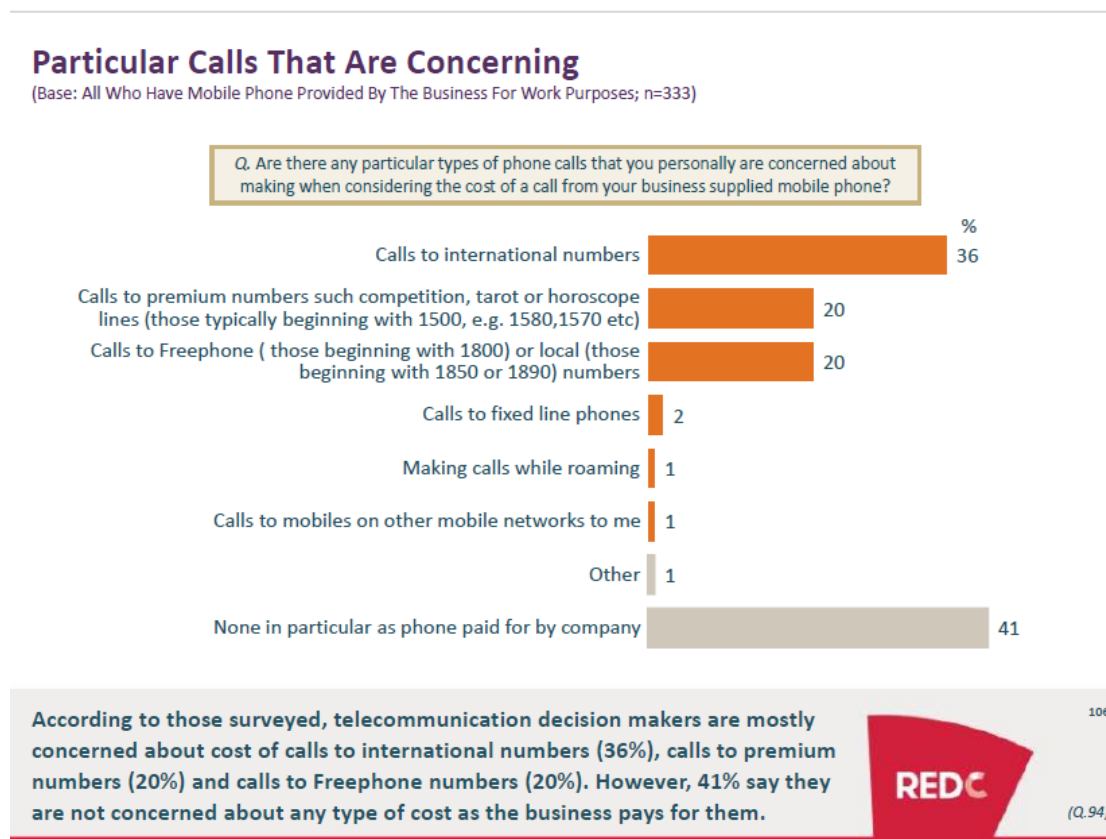


<sup>219</sup> 2016 Consumer MVCT Market Research, slide 87 and slide 106 of the 2016 MVCT Market SME Research.



4.87 Among SME respondents, 36% were concerned about the cost of making calls to international numbers, with 20% concerned about the cost of making calls to both premium rate numbers and non-Geographic Numbers, as illustrated by Figure 44. 41% of SME respondents were not concerned about the cost of any particular calls.

**Figure 44: SME respondents' concerns about the cost of making certain call types from mobile phones**

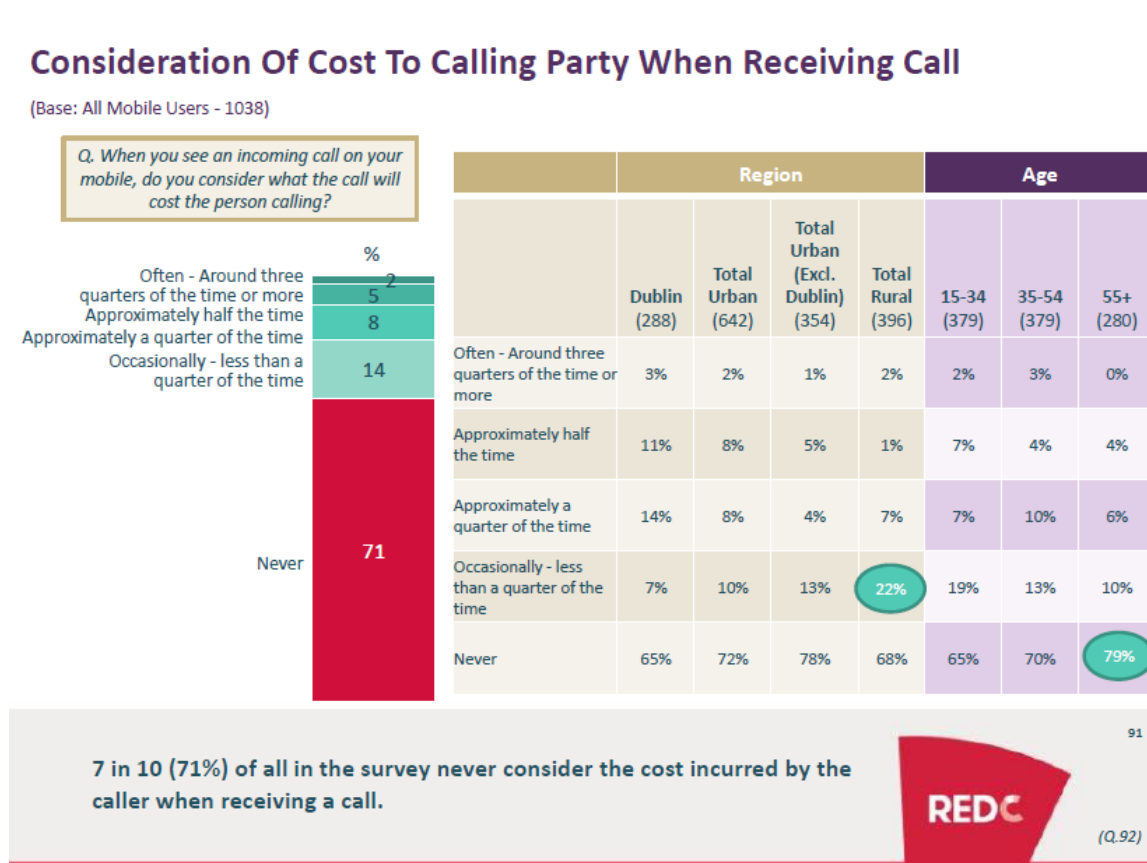


4.88 The 2016 Market Research also explored residential and SME respondents' sensitivities to the costs faced by those calling them. It considered the frequency and nature of any behavioural response where such concerns were articulated. In other words, respondents concerned about the costs faced by the calling party were asked what they would do in response to this concern and how often would they do it.

4.89 Figure 45 illustrates that 71% of residential consumer respondents indicated that they were never concerned with costs faced by the calling party, with the remaining 29% expressing varying degrees of concern.<sup>220</sup>

<sup>220</sup> 2016 Consumer MVCT Market Research, slide 91.

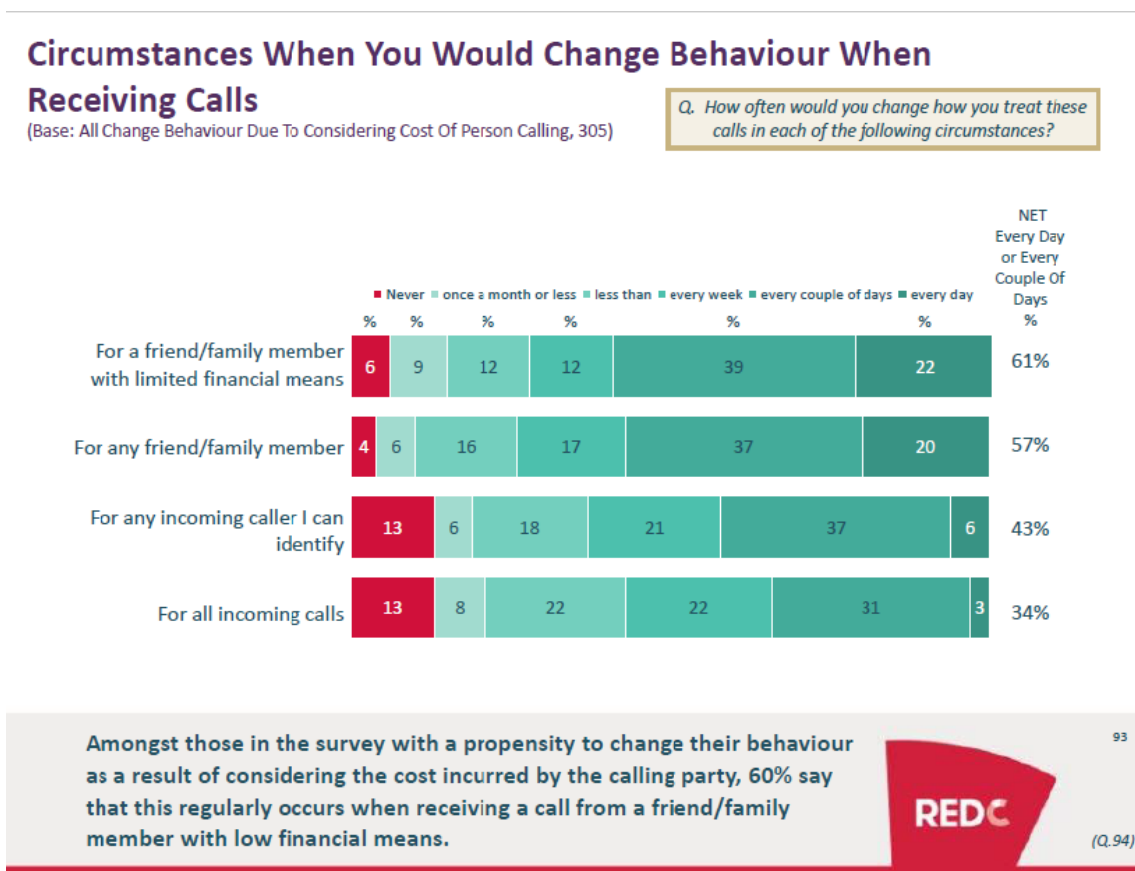
**Figure 45: Called party’s concern about costs faced by calling party**



4.90 Those residential consumers that expressed any level of concern about the cost faced by the calling party (29% of all respondents) were then asked whether such concerns would impact upon how they treat incoming calls. 65% of these residential consumers noted that their behaviour with respect to the treatment of incoming calls would change half the time or less (see Figure 46). The 2016 Market Research also indicated that the frequency of behavioural change is broadly similar regardless of the called party’s identity,<sup>221</sup> with the likelihood of changed behaviour being slightly higher when a calling party is a friend or a family member of limited means.

<sup>221</sup> 2016 Consumer MVCT Market Research, slide 93.

**Figure 46: Incidence of called party change in behaviour due to concern about costs faced by calling party**

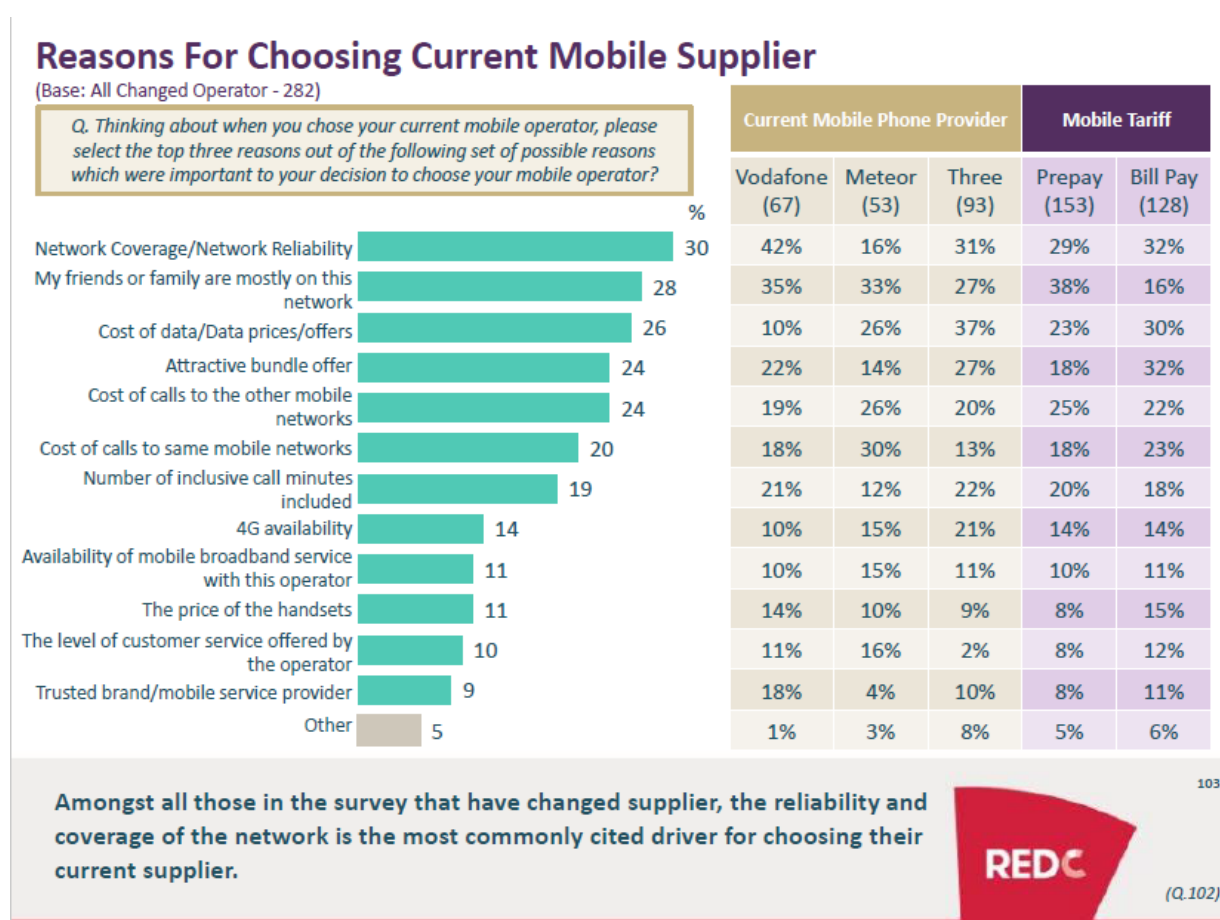


4.91 94% of responding SMEs indicated<sup>222</sup> that they were never concerned about the costs faced by the calling party. The evidence therefore suggests that in general, both residential and SME RMVC subscribers tend to have low levels of concern for the cost faced by the calling party and that the level of any consequential behavioural change in the treatment of received calls is not likely to be significant.

<sup>222</sup> 2016 SME MVCT Market Research, slide 110.

4.92 ComReg notes that the cost awareness of end users and their sensitivities to cost may differ over time. As part of the 2016 Market Research, ComReg asked residential<sup>223</sup> and SME<sup>224</sup> RMVC subscribers that had previously switched their MSP to state the top three reasons for the selection of their current MSP. Figure 47 sets out that network coverage/reliability (30%), friends or family members being on the same network (28%) and cost of data (26%) were the most commonly cited reasons that were important to consumer respondents when switching their MSP. The cost of calls to other mobile networks (off-net calls) and to the same mobile networks (on-net) calls were cited as one of the top 3 reasons for selecting a MSP by 24% and 20% of respondents respectively.

**Figure 47: Consumer respondents’ top 3 reasons for selection of their current MSP**



<sup>223</sup> 2016 Consumer MVCT Market Research, slide 103.

<sup>224</sup> 2016 SME MVCT Market Research slide, 92.

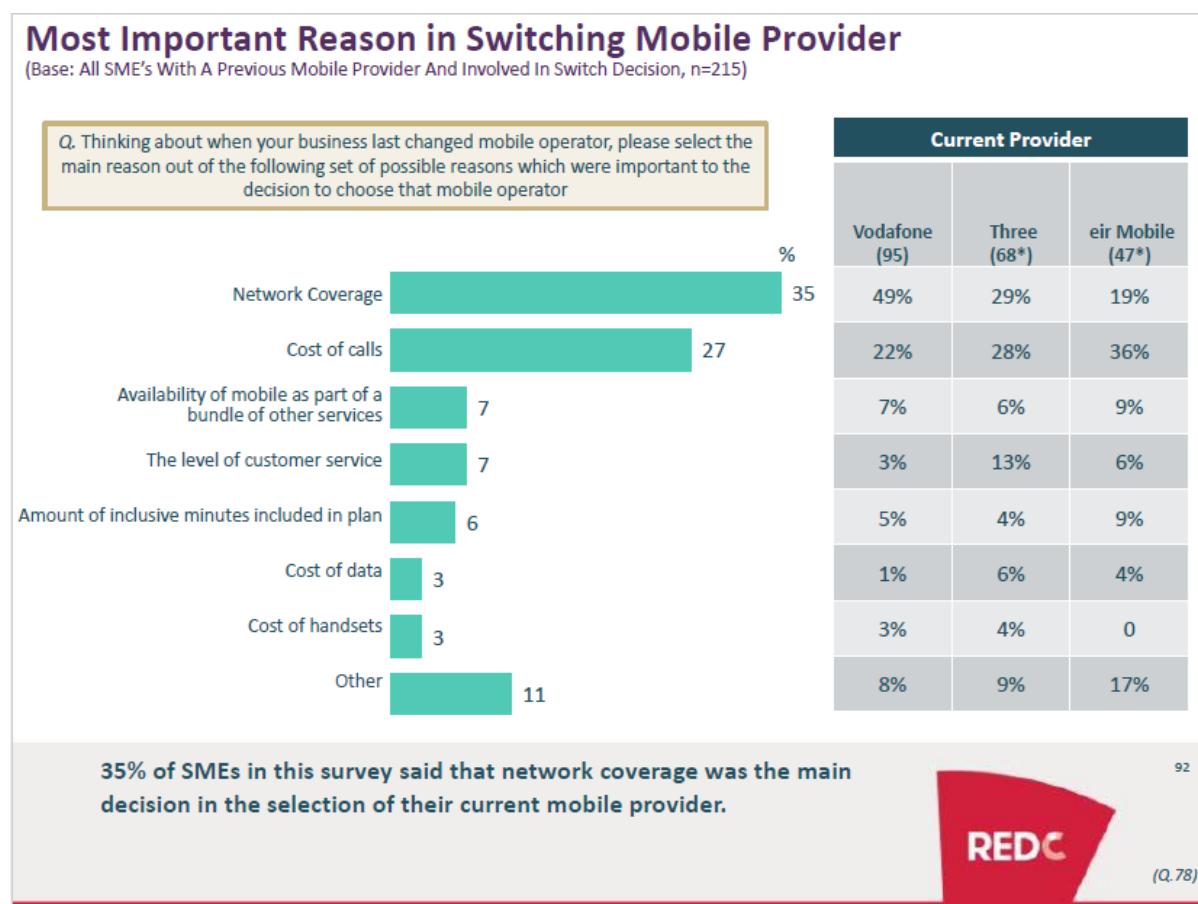
- 4.93 Figure 47 also illustrates that prepay and billpay respondents have stated somewhat similar reasons for selecting their MSPs, with the main exceptions being that prepay customers placed far greater emphasis on whether their friends and family were on the relevant network than billpay customers (38% v. 16%), this could be due to free on-net calling being included as part of the plan. Billpay customers placed far greater emphasis than prepay customers on the attractiveness of the bundle offer (32% v. 18%).
- 4.94 Figure 47 shows some differences amongst prepay and billpay residential consumers regarding their most important reasons for selecting their current MSP. However, there is no specific reason common across these subgroups that would outweigh all other reasons chosen. This contrasts with evidence presented in the 2012 MVCT Consultation where it was noted that, for consumers, the most significant factor in the MSP selection decision was friends or family being on the same network for the purpose of reducing the cost of calls made and received.<sup>225</sup>
- 4.95 The most frequently cited reasons among SME respondents that switched their MSP are presented in Figure 48. Network coverage (35%), cost of calls (27%), and the availability of mobile as part of a bundle of other services (7%) were the most common reasons that were important to SME respondents when switching their MSP. However, when asked to select the main reason for choosing their MSP, the majority of SME respondents (35%) noted that it was network coverage,<sup>226</sup> followed by the cost of calls (27%).

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<sup>225</sup> See paragraph 4.83 of the 2012 MVCT Consultation. The reduced importance of having friends and family on the same mobile network is also supported by an increasing number of originated off-net minutes highlighted in Figure 20 above.

<sup>226</sup> 2016 SME MVCT Market Research, slide 92.

**Figure 48: SME respondents' top 3 reasons for selection of their current MSP**



4.96 Where MSPs provided end user market research relating to switching and churn, it generally tended to support the views expressed above, in particular, that network coverage/network reliability, better value, and data allowance were key drivers cited by consumers and SMEs for switching MSPs.

4.97 ComReg is accordingly of the preliminary view that:

- (a) Overall tariff cost and the cost of making calls are likely to be important factors for consumers when selecting a MSP, primarily driven by the desire to minimise expenditure and obtain the best value for the services purchased. However, once consumers have chosen a MSP, the majority of consumers appear to be less concerned about the cost of making on-net and off-net calls and more concerned about making calls to international, non-geographic or premium rate numbers. This lower level of concern for mobile-to-mobile call costs may be due, at least in part, to the prevalence of tariffs offering unlimited or a set amount of free mobile-to-mobile calls to all networks or for on-net calls, in the retail market – and as such, the cost of such calls may be of less importance once consumers have availed of the tariff (i.e. the importance of this factor seems to decline once the selection of the MSP is made).<sup>227</sup>

<sup>227</sup> See the overview of RMVC retail pricing structures at Annex 3 - Price Plans.

- (b) 29% of consumer respondents appear to have some (varying) level of concern about costs faced by people calling them on their mobile phones. Therefore, any behavioural change as a result of called parties' concerns regarding the cost faced by calling parties is likely to be relatively low. Consumer sensitivities to the cost faced by calling parties are also likely to be relatively low, although where present, sensitivities appear to be higher for callers known to them (i.e. family members and friends).
- (c) SME RMVC subscribers do not tend to consider the cost of making calls when using their mobiles. This is likely to be largely due to the fact that the cost is borne by the SME and not the employee. However, where concerns are expressed about the cost of certain calls these tend to relate to the cost of international calls, with less concern expressed about the cost of making off-net mobile-to-mobile calls. This lower level of sensitivity for off-net calls is likely to be influenced by the prevalence of RMVC tariff plans offering a specific or unlimited amount of any network minutes.
- (d) SME RMVC subscribers are not likely to be concerned about costs faced by calling parties, which implies that SMEs are not prone to significant changes in their treatment of incoming calls. In summary, sensitivities to the costs faced by calling parties do not appear to be significant.

#### **Conclusion on RFVC and RMVC subscriber sensitivity to costs**

- 4.98 Having regard to the analysis in paragraphs 4.74 and 4.97, the evidence therefore suggests that, in general, both residential and SME RFVC and RMVC subscribers tend to have low levels of concern for the cost faced by the calling party and that the level of any consequential behavioural change in the treatment of received calls is not likely to be significant.

### **Summary of preliminary conclusions on factors affecting the responsiveness of end users to changes in RFVC and RMVC prices**

- 4.99 The preceding paragraphs<sup>228</sup> have set out ComReg's preliminary views on a range of issues relating to pricing structures and subscribers' behaviour in the RFVC and RMVC markets. Such behavioural characteristics are also relevant to the market definition and competition assessment of the Relevant FVCT and MVCT Markets discussed in Sections 5 and 6 respectively. Of particular relevance is the degree to which subscribers' behaviour (either the calling party or the called party) and market characteristics may affect the termination rate-setting behaviour of a HM supplier of WVCT.

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<sup>228</sup> See paragraphs 4.7 to 4.98.

4.100 Given the CPP principle, the called party does not pay for incoming calls to geographic or nomadic (076) numbers. Within this CPP environment and having regard to overall RFVC and RMVC pricing structures and characteristics in the Irish market, ComReg has considered both calling party and called party behaviours in relation to network awareness, cost awareness, sensitivity to cost and frequency of any associated behavioural change.

4.101 ComReg's preliminary view is that the called party is likely to have:

- Low levels of awareness of the calling party's Service Provider identity;
- Low levels of awareness of the retail costs faced by the calling party; and
- Low sensitivity to/concern for the costs faced by the calling party.

4.102 These factors are likely to affect the degree to which the called party would have an incentive to change how it treats incoming calls in response to concerns regarding the costs faced by the calling party.

4.103 Similarly, ComReg's preliminary view is that the calling party is likely to have:

- Low levels of awareness of the called party's Service Provider identity;
- Low levels of awareness of the retail costs of making calls; and
- Relatively low levels of concern about the costs of making off-net calls from both mobile and fixed lines to both mobile and fixed lines, with subscribers more likely to be sensitive to overall tariff costs and the cost of making calls when selecting their Service Provider.<sup>229</sup> This behaviour can likely be partly explained by the prevalence of tariff plans offering unlimited (or limited, but large, amounts of) any network, any time minutes.

4.104 These factors are likely to affect the degree to which the calling party may change its calling behaviour in response to the costs faced when calling a subscriber of a particular Service Provider.

## Assessing the impact of retail consumer behaviour on the Relevant FVCT and MVCT Markets

### Overview

4.105 The European Commission's 2014 Recommendation has identified

- Wholesale call termination on individual public telephone networks provided at a fixed location, and
- Wholesale voice call termination on individual mobile networks, as relevant wholesale markets that are susceptible to *ex ante* regulation.

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<sup>229</sup> In this regard, ComReg notes the relatively low level of switching as demonstrated in Figure 21 above.



- 4.106 ComReg is not obliged *per se* to conclude on a precise definition of the relevant retail markets for the purposes of its present WVCT assessments. Nevertheless, ComReg assesses retail markets to inform its subsequent definition of the Relevant Termination Markets and, in particular, to inform its assessment of whether, through substitutability at the retail level, other forms of communication potentially exercise an indirect constraint on the Service Provider supplying WVCT.
- 4.107 In line with the methodology set out by the European Commission,<sup>230</sup> ComReg begins its analysis by considering the narrowest set of candidate products (the '**Candidate Product**') at the wholesale level (WVCT to a particular RFVC or RMVC subscriber) and the correspondingly narrow downstream retail service involving the ability to make a call to a specific subscriber. ComReg examines whether the Candidate Product should be broadened to include other products or services, taking account of demand-side and supply-side substitutability considerations at the retail level.
- 4.108 If either the calling party or the called party had a strong awareness of the costs of making calls to particular networks and a sufficient likelihood of employing alternative modes of communication so as to avoid the costs associated with calling a particular recipient Service Provider with sufficient frequency, in particular, following any pass through into retail prices of an increase (above the competitive level) in termination rates, i.e. an increase in retail prices for calling subscribers on particular networks arising from an increase in termination rates. This could potentially constrain the wholesale price-setting behaviour of the called party's Service Provider in respect of terminating incoming calls. It is therefore necessary to start with an assessment of any potential retail substitution effects to determine their capacity to constrain wholesale market behaviour (which, indirectly, could potentially imply a broader wholesale market), absent regulation.
- 4.109 ComReg accordingly considers whether, from the consumer demand-side perspective, any products may act as an effective substitute for making an off-net call to a subscriber of a Service Provider. This is examined from two perspectives:
- Whether the characteristics, prices and intended use of potential substitute products are sufficiently interchangeable with those attributes associated with making calls to a subscriber of a different Service Provider (i.e. an off-net call); and
  - The likelihood that a sufficient number of consumers would switch to using these potential substitutes in circumstances where the cost of making calls

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<sup>230</sup> See paragraph 41 of the SMP Guidelines and paragraph 16 of the European Commission's *Notice on Market Definition*.

to an off-net phone increased as a result of an increase in wholesale termination rates.

4.110 The Hypothetical Monopolist Test ('**HMT**') is an economic analytical tool which is used to assist in defining relevant product markets by assessing the demand-side substitution behaviour of consumers. The HMT assesses whether, in response to a small, but significant non-transitory increase in price (a '**SSNIP**') above the competitive level - taken to be in the range of 5 to 10% - of a candidate product supplied by a Hypothetical Monopolist (**HM**), a sufficient number of consumers would switch to an alternative substitute product, such that the price increase would be unprofitable.<sup>231</sup> If a sufficient number of consumers switch to alternative products, thus making the price increase unprofitable, then the alternative product is included in the relevant product market. The HMT is carried out for any given number of alternative products which, by their characteristics, prices and intended use, may constitute effective substitutes to the candidate product. If switching to these alternative products is sufficient to render the SSNIP of the candidate product unprofitable, then these are also included in the definition of the relevant product market.

4.111 According to the European Commission, in the case of FVCT,

*“According to competition law principles, if indirect constraints coming from the downstream (retail market) are strong enough to make the termination rate increase unprofitable for a terminating operator, it might be concluded that this operator does not have SMP on its respective termination market. This could be the case if the calls to a fixed network can be substituted by other means of communication at the retail level. In other words, if the calling party, in order to avoid a pass-through of the wholesale termination charge, instead of calling the fixed number, selects an alternative, such as calling the mobile number belonging to the same person or using an OTT provider, this may result in a constraint exercised by another termination service.”<sup>232</sup>*

4.112 While the above statement is in the context of FVCT, it could equally apply to MVCT.

4.113 In line with European Commission guidance on the assessment of indirect retail substitution effects through a SSNIP by a HM at wholesale level, the following factors are considered relevant:

- (a) Whether, and to what extent, wholesale customers purchasing WVCT would be forced to pass a hypothetical wholesale price increase onto their customers at the retail level;

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<sup>231</sup> In other words, whether the revenue foregone due to lost custom from consumers who switch to substitute products is greater than the increased revenue associated with charging a higher price for the product consumer who do not switch.

<sup>232</sup> Explanatory Note accompanying the 2014 Recommendation, at page 32.

- (b) Whether there would be sufficient demand substitution at the retail level in response to the pass-through of the SSNIP in termination rates into retail prices such as to render the termination rate price increase unprofitable i.e. what retail-level demand response would be required to make a SSNIP unprofitable?; and
- (c) Whether the retail customers of Service Providers purchasing WVCT would, to a significant extent, switch to the retail arm of the integrated HM, particularly if the HM does not raise its own retail prices when it raises its termination rates.

4.114 After considering demand-side substitution in paragraphs 4.115 to 4.246 below, ComReg then considers supply-side substitution in paragraphs 4.247 to 4.248 below. In doing so, ComReg considers whether any suppliers not currently providing RFVC or RMVC would, in the short term, enter the market without incurring significant additional costs or risks in response to a SSNIP of WVCT.

## **Retail Demand-Side Substitution**

4.115 The starting point of a retail demand-side substitution analysis for an off-net call to a subscriber of a particular Service Provider is to examine whether, instead of making such a call, consumers<sup>233</sup> are likely to consider the following as effective substitute forms of communication:

- Making a call from a fixed line to a mobile phone (fixed-to-mobile call), discussed in paragraphs 4.121 to 4.125;
- Making an on-net mobile-to-mobile call, discussed in paragraphs 4.126 to 4.135;
- Making a call from a fixed line to a fixed line (fixed-to-fixed call), discussed in paragraphs 4.136 to 4.143;
- Making an unmanaged Voice over Internet Protocol ('VoIP') call, discussed in paragraphs 4.144 to 4.152;
- Sending an SMS or an instant message using OTT applications, discussed in paragraphs 4.153 to 4.161;
- Sending an email, discussed in paragraphs 4.162 to 4.167;
- Shortening an off-net call and/or requesting a call back, discussed in paragraphs 4.168 to 4.175; and
- Delaying making the off-net call to a time when it is cheaper to make that call discussed in paragraphs 4.176 to 4.178.

4.116 These potential substitutes are considered across the range of relevant substitutability criteria set out in the European Commission's Notice on Market Definition, according to which a relevant product market:

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<sup>233</sup> Unless otherwise stated, 'consumers' refers to both private consumers and SME consumers.

*“..... comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products’ characteristics, their prices and their intended use”.*<sup>234</sup>

- 4.117 ComReg’s retail market analysis, therefore, assesses technical characteristics (functionality), price, and any available data regarding consumer usage trends/behaviour.<sup>235</sup> It also considers whether a sufficient number of RFVC or RMVC subscribers are likely to switch to the forms of communication identified in paragraph 4.115 in response to an increase in the retail price of making an off-net call to a Service Provider, with this retail price increase driven by the pass-through of a 5% to 10% increase in the terminating Service Provider’s wholesale termination rates.<sup>236</sup>
- 4.118 In this regard, as part of the 2016 Market research residential and SME RFVC and RMVC subscribers were asked whether they would change their call-making behaviour in response to a 1 cent increase in the price of a RFVC or RMVC (and separately a 3 cent increase in the case of RMVC). The summary of responses is presented in Annexes 1 and 2 of this Consultation.
- 4.119 The call-making behaviours identified in Annexes 1 and 2 of the Consultation could have the following potential impacts on the profitability of both the terminating and the originating Service Provider:
- (a) Potential impact on the terminating Service Provider’s revenue arising from a combination of:
    - a. Increased termination revenue from those consumers that continue to make calls to subscribers of the terminating Service Provider, notwithstanding the pass-through of the increased termination rate into retail prices of the calling party’s Service Provider,
    - b. A decrease in termination revenue arising from those consumers that reduce the number or length of calls (or substitute to other forms of outbound communication) in response to the pass-through of the increased termination rate into retail prices of the calling party’s Service Providers, and

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<sup>234</sup> See paragraph 7 of the European Commission’s Notice on Market Definition.

<sup>235</sup> See Annexes 1 and 2 of this Consultation for price sensitivity and switching analysis in the RFVC and RMVC markets.

<sup>236</sup> As noted in Annex 2 of this Consultation, the hypothetical price increases of RMVC tested in the 2016 Market Research (1 cent and 3 cent) were significantly higher than RMVC price increases that would be likely to occur from the full pass-through of a 5% to 10% increase in “competitive” MTRs (taking the data set out in the STRPL, a 10% increase in the most expensive cent per minute MTR would amount to 0.33 cent per minute, while a 10% increase in the most expensive cent per call MTR would amount to 0.128 cent per call). It should be noted that the transparency of any such increase could be occluded by folding the increase into overall plan price increases, rather than per call rate increases. The same hypothetical price increase would apply to FTRs,

- c. An increase in retail revenue where calling parties, in response to termination rate-induced retail price increases, switch from their existing Service Provider to the Service Provider that increased the termination rate.<sup>237</sup>
- (b) Potential impact on the retail revenue of the calling party's (originating) Service Provider as a result of fewer or shorter calls being made. There is also the possibility that some retail subscribers could switch their Service Provider as a result of the pass-through of the termination rate increase, again leading to a decrease in retail revenues, as discussed in paragraphs 4.7 to 4.104.

## RFVC Demand-Side Substitution

4.120 The following topics as outlined above in paragraph 4.115 discuss how consumer behaviours may potentially change as a result of a hypothetical increase in FTRs.

### Make a fixed-to-mobile call instead of an off-net fixed-to-fixed call

4.121 An increase in FTRs by a HM might be unprofitable if, in response, a sufficient number of consumers switched to making a fixed-to-mobile call instead of an off-net fixed-to-fixed call. The motivation for this behaviour would be to avoid the higher cost of off-net fixed-to-fixed calls and, presumably, to take advantage of the potentially lower cost of fixed-to-mobile calls (if this were to be the case).

4.122 Both bundled and standalone RFVC tariff plans typically include a set or unlimited amount of local/national minutes which can be used for calls to subscribers of any FSP.<sup>238</sup> Minutes for calls to mobiles are typically included only in the more expensive RFVC tariff plans.

4.123 If this pricing approach for calls persisted absent regulation, this would likely reduce a consumer's incentive to switch to a fixed-to-mobile call, as the number of bundled minutes is generally far greater for fixed-to-fixed calls than for fixed-to-mobile calls. Moreover, out-of-bundle minutes for fixed-to-fixed voice calls are frequently cheaper than out-of-bundle minutes for fixed-to-mobile calls.<sup>239</sup>

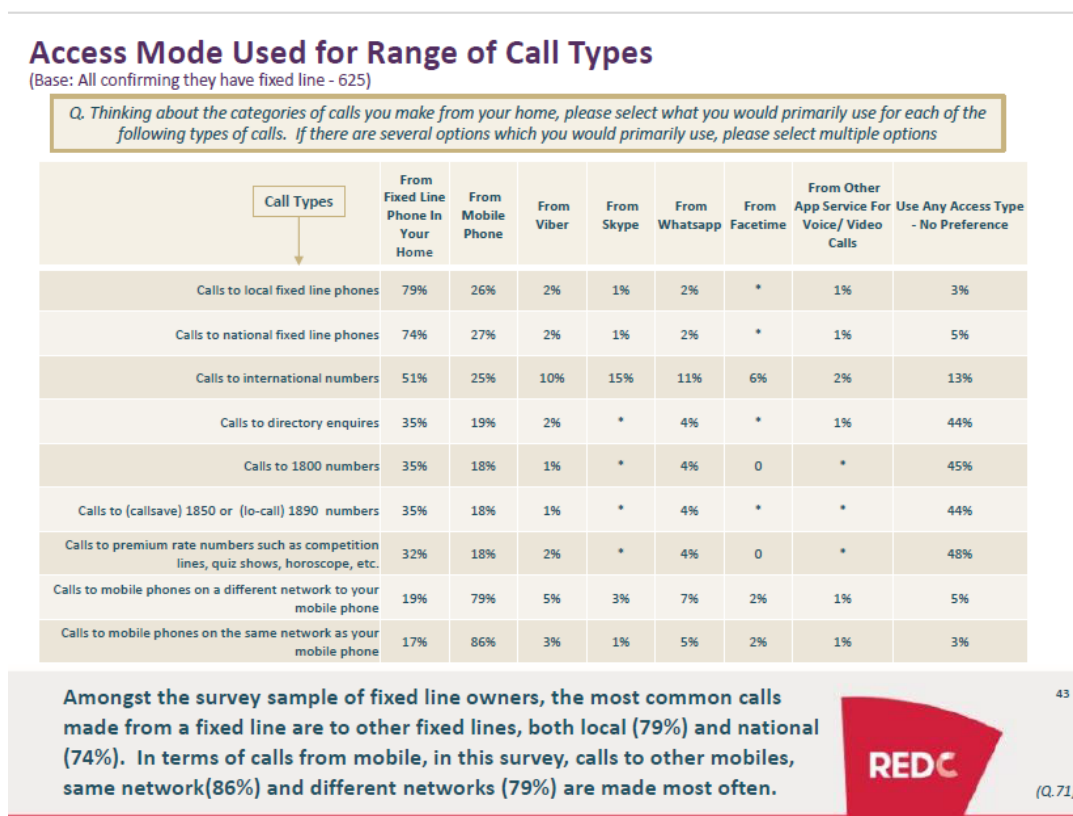
<sup>237</sup> Assuming the terminating Service Provider was acting rationally in seeking to maximise profits, ComReg assumes that it would likely increase its termination rates for all calls terminating with it, irrespective of the identity of the calling party's Service Provider i.e. the termination rate increase would be passed on to all originating Service Providers.

<sup>238</sup> ComReg data indicate that, in Q4 2016, 37% of fixed voice subscriptions across business and residential customers were for standalone fixed voice, with the remaining 63% of subscriptions forming part of a bundle with other services, such as TV, broadband or mobile.

<sup>239</sup> For example, pursuant to website checks in September 2017, Eircom's base rates for Out-of-package local & national daytime calls are 9c per minute compared to 29c for out-of-package calls to mobile networks (except for calls to Eir Mobile). See <https://www.eir.ie/opencms/export/sites/default/.content/pdf/pricing/Part2.1.pdf>. Similarly, Virgin Media charges 4.5c for local and national calls and 26c for calls to mobile networks for calls from fixed lines. (See [https://www.virginmedia.ie/pdf/standard\\_call\\_rates\\_may\\_2016.pdf](https://www.virginmedia.ie/pdf/standard_call_rates_may_2016.pdf))

4.124 In this regard, the 2016 Market Research suggests that most RFVC subscribers prefer to make fixed-to-fixed and mobile-to-mobile calls as indicated in Figure 49 below. For example, over 70% of residential respondents use their RFVC to make calls to local/national fixed line phones compared to less than 20% for calls to mobile phones.<sup>240</sup> Observed fixed voice traffic patterns<sup>241</sup> indicate that RFVC subscribers predominantly use their fixed line phones for calls to other fixed line phones rather than for calls to mobile phones.

**Figure 49: Residential RFVC subscribers’ preferences - device use by call type**



**Preliminary conclusion on making a fixed-to-mobile call instead of an off-net fixed-to-fixed call**

4.125 Having regard to the analysis set out above, ComReg considers that, in response to an increase in FTRs, insufficient numbers of RFVC subscribers are likely to switch to making a fixed-to-mobile call instead of an off-net fixed-to-fixed call such that it would make the FTR increase unprofitable. ComReg is, therefore, of the preliminary view that a fixed-to-mobile call is not likely to pose an effective indirect competitive constraint on FTRs.

<sup>240</sup> See slide 43 of the 2016 FVCT Market Consumer Research. Similar patterns are observed from SME RFVC, per slide 32 of the 2016 FVCT Market SME Research.

<sup>241</sup> See Figures 2.3.1, 2.3.2 and 2.3.3 in Q4 2016 QKDR.

### **Make a mobile-to-mobile call instead of an off-net call from a fixed line**

- 4.126 An increase in FTRs by a HM might be unprofitable if, in response, a sufficient number of consumers substituted making an off-net fixed-to-fixed call or mobile-to-fixed call with a mobile-to-mobile call. The motivation for this behaviour would be to avoid the higher cost of mobile-to-fixed or off-net fixed-to-fixed calls and, presumably, to take advantage of the lower cost of mobile-to-mobile calls.
- 4.127 The overview of RFVC and RMVC<sup>242</sup> tariff plans indicates that unlimited or set amounts of minutes for calls to any fixed or mobile network are typically included within advertised RFVC/RMVC tariff plans. Furthermore, as noted above, out-of-bundle minutes for fixed-to-fixed voice calls are frequently cheaper than out-of-bundle minutes for mobile-to-mobile calls.<sup>243</sup> If this pricing approach were to continue absent regulation, this would likely reduce a consumer's incentive for switching to a mobile-to-mobile call since the call costs are the same (or higher in case of out-of-bundle calls). Furthermore, as noted earlier,<sup>244</sup> the limited cost and network awareness of end users would also dampen the incentives for making mobile-to-mobile calls instead of either off-net fixed-to-fixed or mobile-to-fixed calls.

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<sup>242</sup> See Annex 3.

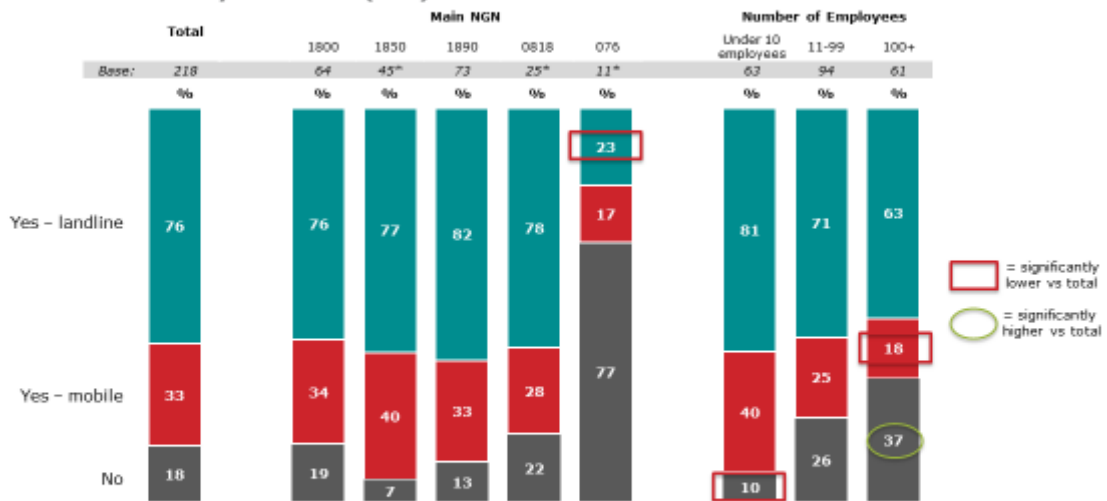
<sup>243</sup> For example, in July 2017, Eircom's base rates for out-of-package local & national daytime calls were 9c per minute compared to Virgin Media's rates of 25c for out-of-package calls to mobile networks. See <https://www.eir.ie/opencms/export/sites/default/.content/pdf/pricing/Part2.1.pdf> and <https://www.virginmedia.ie/pdf/Mobile/june/Mobile-Standard-Rates-Online-01062017.pdf>. Similarly, Vodafone charges 4.5c for out of bundle local and national calls made from fixed line phones and 35c for out of bundle mobile-to-mobile calls on prepay tariff plans. (See <https://www.vodafone.ie/home/broadband/charges> and <http://www.vodafone.ie/pay-as-you-go-plans/charges/>).

<sup>244</sup> See paragraphs 4.34-4.60 Consumer/SME network awareness-and paragraphs 4.61-4.73 – Consumer/SME awareness of retail voice call cost.

4.128 While ComReg notes the observed trends in originated call traffic and, in particular, declining fixed-to-fixed and increasing mobile-to-mobile traffic,<sup>245</sup> it should also be noted that, in some instances, the called party can only be contacted on a fixed number. For example, where the called party is a business or an administrative body, contacting the called party on their mobile phone may not be a viable alternative to contacting the called party’s fixed number. In this regard, ComReg notes that the 2016 NGN Numbering Research<sup>246</sup> indicated that 76% of SMEs using non-Geographic Numbers also provide Geographic Numbers to access the same service compared to 33% who provide mobile numbers, as shown in Figure 50 below.<sup>247</sup> If a respondent had to use an alternative contact method to its main non-Geographic Number, 44% said they would use a Geographic Number, while only 11% said they would use a mobile number.<sup>248</sup>

**Figure 50: Incidence of businesses providing non-geographic and alternative contact numbers to access the same service**

**Provision of alternative landline or mobile number to access same service as the NGN**  
 Base: All currently use NGNs (218)



Almost 4 in 5 organisations provide a landline number and one third provide a mobile number to access the same service as the NGN.



Q.9 Thinking of the services provided on your main NGN, do you also provide a landline or mobile number for customers to access these service?

\*Caution small base

<sup>245</sup> See Figure 3 above.

<sup>246</sup> ComReg commissioned a Consumer and Business non-Geographic Number Survey (the ‘NGN Numbering Organisation Research’) in 2016.

<sup>247</sup> See slide 42 of 2016 NGN Numbering Organisation Research.

<sup>248</sup> See slide 44 of 2016 NGN Numbering Organisation Research.



- 4.129 Furthermore, in areas of poor mobile phone coverage, contacting a called party via mobile might be a less viable alternative. In this regard, ComReg notes that 23% of responding residential RFVC subscribers and 36% of responding SME RFVC subscribers indicated that poor mobile coverage in their premises was a likely reason for keeping an RFVC subscription.<sup>249</sup>
- 4.130 As part of the 2016 Market Research, residential and SME RFVC subscribers were asked whether, in response to a 1 cent increase in the cost of calling a subscriber of another FSP, they would consider making more calls from their mobile phones. Of the 30% of residential standalone RFVC subscribers that were likely to change their behaviour and make fewer calls/cancel their RFVC subscription, eleven respondents<sup>250</sup> indicated that making more calls from their mobile phones was one of the actions likely to be considered.
- 4.131 Similarly, of the 25% of RFVC subscribers on bundled price plans that were likely to change their behaviour<sup>251</sup> and cancel their bundle of services, five noted that they would make more calls on their mobile.<sup>252</sup>
- 4.132 SME RFVC subscribers (outside of a bundle) also indicated a low incidence of switching as a result of a 1 cent per minute price increase on off-net fixed-to-fixed calls. 69% of SMEs said they would do nothing and 18% said they would definitely change their behaviour.<sup>253</sup>
- 4.133 Similarly outside of a bundle, if the cost of a phone call from a fixed line to a mobile phone increased by 1 cent per minute 19%<sup>254</sup> of businesses surveyed said they would definitely change their behaviour if the price of fixed-to-mobile calls increased by 1 cent per minute.

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<sup>249</sup> Slide 80 of the 2016 Consumer FVCT Market Research and slide 70 of the 2016 FVCT Market SME Research.

<sup>250</sup> 2016 Consumer FVCT Market Research, slide 89 and Annex 1 of this Consultation. Note, when percentages are represented as a percentage of all surveyed residential standalone RFVC subscribers it equates to 8%. It should be noted that responses related to all calls made from mobile (including mobile-to-fixed calls) and thus, stated responses, may somewhat overestimate the substitution level between fixed-to-fixed and mobile-to-mobile calls.

<sup>251</sup> n=121.

<sup>252</sup> Note, when percentages are represented as a percentage of all surveyed residential bundled RFVC subscribers, it equates to approximately 1%. It should be noted that responses related to all calls made from mobile (including mobile-to-fixed calls) and thus, stated responses may somewhat overestimate the substitution level between fixed-to-fixed and mobile-to-mobile calls.

<sup>253</sup> 2016 SME FVCT Market Research, slides 78-82.

<sup>254</sup> 2016 SME FVCT Market Research, slides 83-88.

4.134 Similar questions were asked of SMEs with services in a bundle, “If the cost of a phone call from your fixed line to other fixed lines on a different network/different landline provider to you increased by 1 cent per minute?” 17% of business surveyed with a bundle said they would change behaviour if the price of fixed-to-fixed calls increased by 1 cent per minute and 71%<sup>255</sup> said they would not change their behaviour.

**Preliminary conclusion on making a mobile-to-mobile call instead of an off-net call from a fixed line**

4.135 Having regard to the above analysis, ComReg considers that, in response to an increase in FTRs, insufficient numbers of consumers are likely to switch to making a mobile-to-mobile call instead of an off-net fixed-to-fixed call or mobile-to-fixed call such that it would make the FTR increase unprofitable. ComReg is, therefore, of the preliminary view that mobile-to-mobile calls are unlikely to pose an effective indirect competitive constraint on FTRs.

**Make an on-net fixed-to-fixed call instead of making an off-net call from a fixed line**

4.136 An increase in FTRs by a HM might be unprofitable if, in response, a sufficient number of consumers switched to making an on-net fixed-to-fixed call instead of an off-net fixed-to-fixed call or mobile-to-fixed call. The motivation for this behaviour might be to avoid the higher cost of calling the fixed line phone from a mobile/off-net fixed line phone and, presumably, to take advantage of the lower cost of an on-net fixed-to-fixed call.<sup>256</sup>

4.137 In order for on-net fixed-to-fixed calls to be a viable substitute, it would be necessary for either the calling party or the called party to have multiple RFVC subscriptions, one of which must be with the same FSP for both parties. Given the costs involved in maintaining two or more RFVC subscriptions, ComReg considers that this is unlikely to be a viable alternative for residential RFVC subscribers.<sup>257</sup>

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<sup>255</sup> 2016 SME FVCT Market Research, slides 89-94

<sup>256</sup> On-net fixed-to-fixed calls do not involve an explicit termination payment as the calling party’s FSP is the same as that of the called party.

<sup>257</sup> SME RFVC subscribers are more likely to purchase multiple fixed line phone connections to deal with high call volumes, fulfil different requirements (e.g. separate connection for alarm) and provide fixed line phone connections to multiple premises *rather than* for the purpose of making more on-net fixed-to-fixed calls. See slide 14 and 15 of the 2016 FVCT Market SME Research.

- 4.138 Alternatively, subscribers could switch RFVC provider to be on the same network as their call recipients – thereby allowing the calling party to avail of cheaper on-net call charges.<sup>258</sup> ComReg recognises that this may be a viable option for some subscribers, in particular, those that are price sensitive and make a sufficiently large number of calls to subscribers of the same FSP (although there may be switching costs, such as those involved in breaking a minimum term contract). For example, in the case of personal users making frequent calls to the same friends/family circles or, in the case of SMEs, employee to employee calls. Such customer switching in response to increases in FTRs would impact the calling party's Service Provider as well as the terminating FSP.
- 4.139 As discussed in the analysis of RFVC pricing structures, FSPs generally do not differentiate charges for out-of-bundle on-net and off-net calls to fixed line phones, with many RFVC tariff plans offering specific or unlimited amounts of free minutes to any RFVC.<sup>259</sup> If the pricing approach for these calls continued absent regulation, this would likely reduce a consumer's incentive for switching to an on-net fixed-to-fixed call since the costs are the same regardless of the identity of the called party's FSP. Furthermore, as noted earlier, the limited cost and network awareness of end users would also dampen incentives for switching FSP providers.
- 4.140 As part of the 2016 Market Research, residential and SME RFVC subscribers were asked whether, in response to a 1 cent increase in the cost of calling a subscriber of another FSP, they would consider cancelling their current RFVC subscription. Of the 30% of 132 residential standalone RFVC subscribers that were likely to change their behaviour,<sup>260</sup> 29% (11 respondents) indicated that they would cancel their subscription.<sup>261</sup> Similarly, of the 25% of 485 bundled RFVC subscribers that were likely to change their behaviour 21% of these (24 respondents) indicated that they would cancel their bundle of services.<sup>262</sup>

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<sup>258</sup> In case of consumers purchasing RMVC services only, such consumers would have to purchase RFVC from the called party's FSP in order to make on-net fixed-to-fixed calls.

<sup>259</sup> As described above at paragraphs 4.23 to 4.27.

<sup>260</sup> 30% (n=39) of surveyed residential standalone RFVC subscribers.

<sup>261</sup> 2016 Consumer FVCT Market Research, slide 89 and Annex 1 of this Consultation. Note, when percentages are represented as a percentage of all surveyed residential standalone RFVC subscribers it equates to 8%.

<sup>262</sup> 2016 Consumer FVCT Market Research, slide 101 and Annex 1 of this Consultation. Note, when percentages are represented as a percentage of all surveyed residential bundled RFVC subscribers it equates to 5%.

4.141 SME RFVC subscribers also indicated a low incidence of cancelling their subscription in response to a 1 cent increase in the price of calling a subscriber of another FSP.<sup>263</sup> Of the 31% of 201 SME standalone RFVC subscribers that were likely to change their behaviour, 15% (9 respondents) indicated that they would cancel their subscription.

4.142 Similarly, of the 29% of 243 bundled SME RFVC subscribers that were likely to change their behaviour, 12%<sup>264</sup> (8 respondents) indicated that they would cancel their bundle of services.

**Preliminary conclusion on on-net fixed-to-fixed calls instead of making an off-net call from a fixed line**

4.143 Having regard to the analysis set out above, ComReg considers that insufficient numbers of consumers are likely to switch to making an on-net fixed-to-fixed call instead of an off-net fixed-to-fixed or mobile-to-fixed call, in response to an increase in FTRs, such that it would make the FTR increase unprofitable. ComReg is, therefore, of the preliminary view that an on-net fixed-to-fixed call is not likely to pose an effective indirect competitive constraint on FTRs.

**Make an unmanaged VoIP call instead of making an off-net call from a fixed line**

4.144 A HM might be constrained in setting its FTR above the competitive level if, in response to the FTR increase being passed through to the retail price, a sufficient number of consumers were to switch to making an unmanaged VoIP-to-VoIP call instead of a traditional call to a RFVC subscriber such that it would make the FTR increase unprofitable. The rationale for doing so would be to avoid the retail costs associated with making an off-net fixed-to-fixed or mobile-to-fixed call by bypassing the FTR charged for supplying FVCT services.

4.145 Calls via unmanaged VoIP services are typically free when calling other unmanaged VoIP users, but incur a cost when calling a retail telephony service subscriber (both RFVC and RMVC subscribers).<sup>265</sup> Unmanaged VoIP services are frequently used by end users via devices connected to the Internet (such as PCs, laptops, smartphones, tablets etc.) in order to communicate with other users on these devices.

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<sup>263</sup> 2016 SME FVCT Market Research, slides 79 and 80.

<sup>264</sup> 2016 SME FVCT Market Research, slide 90.

<sup>265</sup> For example, see Skype call rates at [https://secure.skype.com/en/calling-rates?wt.mc\\_id=revamp&expo365=empty](https://secure.skype.com/en/calling-rates?wt.mc_id=revamp&expo365=empty).

- 4.146 For an unmanaged VoIP-to-VoIP call to act as a potential effective substitute for a traditional call to a Geographic Number, both the calling and the called party would need to have a data/broadband subscription,<sup>266</sup> a device connected to the Internet and the same unmanaged VoIP Service Provider.<sup>267</sup> While unmanaged VoIP-to-VoIP calls are typically free and do not incur an FTR, both the calling and called party may incur costs associated with data usage. Hence, unlike the CPP principle, the called party may face some costs (particularly when RMVC/broadband plans include limited amounts of inclusive free data). This could impact their behaviour when receiving unmanaged VoIP calls, for instance, if a call is transmitted over a mobile network, rather than over WiFi.
- 4.147 In this regard, ComReg notes that, according to Eurostat, 70% of individuals access<sup>268</sup> the Internet every day or almost every day in the State as at 2016,<sup>269</sup> thus indicating that, for 30% of end users, the receipt of an unmanaged VoIP call is not likely to be a viable solution.
- 4.148 In addition, it is questionable whether the quality of an unmanaged VoIP call would be sufficiently similar to a traditional voice call such that consumers would use them interchangeably.<sup>270</sup> Quality of service issues may arise when using VoIP services on an unmanaged data network as bit rate error and latency issues can degrade call quality on VoIP services. Were this to occur often, in ComReg's preliminary view such functional differences between unmanaged VoIP and traditional voice call would likely undermine consumer usage of unmanaged VoIP calls as a substitute for traditional calling methods.

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<sup>266</sup> It is possible to make a call originating on VoIP technology directly to a fixed number without the called party having a data/broadband subscription; however, this would not bypass the terminating network's FTR. The use of such VoIP calls is not, therefore, likely to place a sufficient constraint on the FTR price-setting behaviour of a HM.

<sup>267</sup> Currently, it is not possible to make calls between users of different unmanaged VoIP OTT applications.

<sup>268</sup> Defined as accessing Internet every day or almost every day on average within the last three months before the survey.

<sup>269</sup> See <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tin00092&plugin=1>.

<sup>270</sup> The International Telecommunications Union (ITU) has, in Recommendation P.862.1, set out methods for objective and subjective assessment of voice call quality: [https://www.itu.int/rec/dologin\\_pub.asp?lang=e&id=T-REC-P.862.1-200311-I!!PDF-E&type=items](https://www.itu.int/rec/dologin_pub.asp?lang=e&id=T-REC-P.862.1-200311-I!!PDF-E&type=items)

- 4.149 As part of the 2016 Market Research, residential and SME retail end users were asked whether they use OTT applications for voice or video calls. 39% of residential respondents<sup>271</sup> and 80% of SME respondents noted that they do not use unmanaged VoIP services for making/receiving calls.<sup>272</sup> The most frequently cited reasons for not doing so by residential respondents were preferences for making calls from mobile or fixed line phones.<sup>273</sup> The relatively low level of usage of unmanaged VoIP services implies that it is unlikely to be perceived as an effective substitute by calling parties for a sufficient volume of calls, such that it would make an FTR increase unprofitable.
- 4.150 In this regard, residential and SME RFVC subscribers were asked whether, in response to a 1 cent increase in the cost of calling a subscriber of another FSP, they would consider making more voice or video calls using OTT applications instead. Of the 30% of 132 residential standalone RFVC subscribers that were likely to change their behaviour, 5 respondents<sup>274</sup> indicated that making more voice/video calls via OTT applications was one of the actions likely to be considered. Similarly, of bundled RFVC subscribers that were likely to change their behaviour and cancel or downgrade their bundle of services, 11 respondents indicated that making more voice/video calls via OTT applications was one of the actions likely to be considered.<sup>275</sup>
- 4.151 SME RFVC subscribers also indicated a low incidence of switching to making more voice/video calls via OTT applications in response to a 1 cent increase in the price of calling a subscriber of another FSP.<sup>276</sup> Of the 31% of 201 SME standalone RFVC subscribers that were likely to change their behaviour, 6 respondents indicated that they would make unmanaged VoIP-to-VoIP calls instead. Similarly, of the 29% of 243 bundled SME RFVC subscribers that were likely to change their behaviour, 12 respondents indicated that they would make unmanaged VoIP-to-VoIP calls instead.

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<sup>271</sup> 2016 Consumer FVCT Market Research, slide 32.

<sup>272</sup> 2016 SME FVCT Market Research, slide 34.

<sup>273</sup> 59% and 32% of residential respondents not using OTT applications respectively selected these reasons as likely reasons for not communicating via OTT applications. See slide 36 of the 2016 FVCT Market Consumer Research.

<sup>274</sup> 2016 Consumer FVCT Market Research, slide 91 and Annex 1 of this Consultation. Note, when percentages are represented as a percentage of all surveyed residential standalone RFVC subscribers it equates to 4%.

<sup>275</sup> 2016 FVCT Consumer Market Research, slide 103 and Annex 1 of this Consultation. Note, when percentages are represented as a percentage of all surveyed residential bundled RFVC subscribers, it equates to 2.2%.

<sup>276</sup> 2016 SME FVCT Market Research, slides 80 and 81.

**Preliminary conclusion on making an unmanaged VoIP call instead of an off-net call from a fixed line**

4.152 The 2016 Market Research asked respondents whether, in the context of a SSNIP, they would switch to making an unmanaged VoIP-to-VoIP call. Having regard to the analysis set out above, ComReg considers that, in response to an increase in FTRs, insufficient numbers of consumers are likely to switch to making an unmanaged VoIP-to-VoIP call instead of an off-net fixed-to-fixed call, such that it would make the FTR increase unprofitable. ComReg is, therefore, of the preliminary view that an unmanaged VoIP-to-VoIP call is not likely to pose an effective indirect competitive constraint on FTRs.

**Send an off-net SMS or instant message using an OTT application instead of making an off-net call from a fixed line**

4.153 A HM might be constrained in setting its FTR above the competitive level if, in response to the FTR increase being passed through to the retail price, a sufficient number of consumers were to switch to sending an SMS<sup>277</sup> or instant message using an OTT application, instead of making a call to a RFVC subscriber. The rationale for doing so would be to avoid the retail cost associated with making an off-net fixed-to-fixed call or mobile-to-fixed call.

4.154 ComReg's preliminary view is that there are sufficient functional differences between making an off-net fixed-to-fixed or mobile-to-fixed call and sending an off-net SMS or instant message using an OTT application.

4.155 There is typically a restriction on how much detail a person can communicate in a SMS as a maximum of 160 characters can be sent in an individual SMS. This means that a consumer may not be able to transfer in one message all of the information that could be imparted through a call. However, this could be overcome by sending multiple SMS messages - although a charge could potentially be incurred for each SMS.<sup>278</sup>

4.156 Moreover, SMS messages are sent on a 'store and forward' basis meaning that there may be a delay in the recipient receiving a text (i.e. it is not a real-time communication). In contrast, a voice conversation is immediate and occurs at the point in time when the call recipient answers the incoming call. These functional differences suggest that an SMS is not likely to be considered by a sufficient number of people to be a close substitute to an off-net call to a fixed line phone (although it is recognised by ComReg that some people may consider them to be, particularly for short calls or where real-time communication is not important).

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<sup>277</sup> The level of fixed line originated SMS is virtually non-existent and this is not likely to change within the short to medium term. Therefore, ComReg does not consider fixed SMS in this analysis, given that its impact is likely to be extremely low.

<sup>278</sup> The analysis of retail pricing structures for RMVC in paragraphs 4.28 to 4.33 indicates that the majority of RMVC tariffs offer unlimited or a set amount of free text messages.

- 4.157 The observed change in SMS volumes also indicates that this form of communication is in decline, with the number of sent SMS decreasing by 15.7% in the period Q4 2015 to Q4 2016.<sup>279</sup> SMS volumes have declined by 55% since the 2012 FVCT Consultation. In contrast, fixed-to-fixed call volumes over the same period have fallen by 27%, while mobile-to-fixed call volumes have increased by 23% over the same time period.
- 4.158 Conversely, sending instant messages using OTT applications is becoming more popular with 58% of residential consumers indicating that they use this form of communication every day or every couple of days.<sup>280</sup> Instant messages typically have a much higher character limit than text messages. However, the conditions required for making instant messages are similar to the conditions for making unmanaged VoIP to VoIP calls. For example, in order for the calling and called (or sending and receiving) parties to communicate via instant messaging, both parties would require a device connected to the Internet (e.g. smartphone or tablet), a data allowance on a purchased RMVC tariff plan or broadband subscription and the same OTT application for sending and receiving instant messages. Moreover, instant messages are similar to SMS in that there may be a delay in the recipient response to a received instant message i.e. it is not a real-time form of communication.<sup>281</sup>
- 4.159 As part of the 2016 Market Research, residential and SME RFVC subscribers were asked whether, in response to a 1 cent increase in the cost of calling a subscriber of another FSP, they would consider sending an SMS or OTT instant message instead. Of the 30% of 132 residential standalone RFVC subscribers that were likely to change their behaviour and make fewer calls/cancel their RFVC subscription, 25% (7 respondents) indicated that sending more SMS messages was one of the actions likely to be considered.<sup>282</sup> Similarly, of the 25% of 485 bundled RFVC subscribers that were likely to change their behaviour and cancel their bundle of services, 9% (11 respondents) indicated that they would send more texts instead.<sup>283</sup>

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<sup>279</sup> See Q4 2016 QKDR.

<sup>280</sup> 2016 Consumer FVCT Market Research, slide 34. The 2015 [ICT Consumer survey](#) indicated (at Slide 59) that 55% of consumer respondents used instant messaging.

<sup>281</sup> This might occur when the recipient is not online when the originating party sends an instant message.

<sup>282</sup> 2016 Consumer FVCT Market Research, slide 91 and Annex 1 of this Consultation. Note, when percentages are represented as a percentage of all surveyed residential standalone RFVC subscribers it equates to 5%.

<sup>283</sup> 2016 Consumer FVCT Market Research, slide 104 and Annex 1 of this Consultation. Note, when percentages are represented as a percentage of all surveyed residential bundled RFVC subscribers, it equates to 0.6% and 0.2% respectively.



4.160 SME RFVC subscribers also indicated a low incidence of sending text messages in response to a 1 cent increase in the price of calling a subscriber of another FSP.<sup>284</sup> Of the 31% of 201 SME standalone RFVC subscribers that were likely to change their behaviour, 9 respondents indicated that they would send more text messages instead. Similarly, of the 29% of 243 bundled SME RFVC subscribers that were likely to change their behaviour, 16 respondents indicated that they would send more text messages instead.

**Preliminary conclusion on sending an off-net SMS or instant message using an OTT application instead of making an off-net call from a fixed line**

4.161 Having regard to the analysis set out above, ComReg considers that, in response to an increase in FTRs, insufficient numbers of consumers are likely to switch to sending an SMS or instant message using OTT applications<sup>285</sup> instead of a call to a fixed-line phone such that it would make the FTR increase unprofitable. ComReg is, therefore, of the preliminary view that an SMS/Instant Message via OTT applications is not likely to pose an effective indirect competitive constraint on FTRs.

**Send an email instead of making an off-net call from a fixed line**

4.162 A HM might be constrained in setting its FTR above the competitive level if, in response to the FTR increase being passed through to the retail price, a sufficient number of consumers were to switch to sending an email instead of making an off-net call to a RFVC subscriber. The rationale for sending an email would be to avoid the retail cost associated with making an off-net fixed-to-fixed call or mobile-to-fixed call.

4.163 Email has similar functional characteristics to a text message in that it is not a real-time application. There are, however, some differences. First, for a called party to receive an email it would need to have access to a PC, laptop, smartphone or tablet to communicate with other users. Second, there is no limit on the number of characters that can be sent in an email.

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<sup>284</sup> 2016 SME FVCT Market Research, slides 80 and 81.

<sup>285</sup> ComReg considers that, similar to an instant message, use of social media is unlikely to make an FTR increase unprofitable.

- 4.164 As part of the 2016 Market Research, residential and SME RFVC subscribers were asked whether, in response to a 1 cent increase in the cost of calling a subscriber of another FSP, they would consider sending an email/using the Internet for social media instead. Of the 30% of 132 residential standalone RFVC subscribers that were likely to change their behaviour<sup>286</sup> and make fewer calls/cancel RFVC subscription, five respondents indicated that sending an email/using the Internet for social media or instant messaging was one of the actions likely to be considered.<sup>287</sup>
- 4.165 SME RFVC subscribers also indicated a low incidence of switching to sending emails or using the Internet in response to a 1 cent increase in the price of calling a subscriber of another FSP.<sup>288</sup> Of the 31% of 201 SME standalone RFVC subscribers that were likely to change their behaviour, 13 respondents indicated that they would send emails or use the Internet instead. Similarly, of the 29% of 243 bundled SME RFVC subscribers that were likely to change their behaviour, 17 respondents indicated that they would send emails or use the Internet instead.
- 4.166 While some consumers may consider email<sup>289</sup> to be a potential substitute to calling a fixed line phone, particularly for short calls or where immediacy of contact is not a priority, ComReg's preliminary view is that this is not likely to be the case for a sufficient number of consumers. Limited consumer cost and network awareness is also likely to impact the degree to which consumers would be incentivised to use email as a potential substitute for a call to a fixed line phone.

**Preliminary conclusion on sending an email instead of making an off-net call from a fixed line**

- 4.167 Having regard to the analysis set out above, ComReg considers that, in response to an increase in FTRs, an insufficient numbers of end users are likely to switch to sending an email instead of an off-net call to a fixed line phone, such that it would make the FTR increase unprofitable. ComReg is, therefore, of the preliminary view that email is not likely to pose an effective indirect competitive constraint on FTRs.

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<sup>286</sup> 30% (n=39) of surveyed residential standalone RFVC subscribers.

<sup>287</sup> 2016 Consumer FVCT Market Research, slide 91 of Annex 1 of this Consultation. Note, when percentages are represented as a percentage of all surveyed residential standalone RFVC subscribers it equates to 4%.

<sup>288</sup> 2016 SME FVCT Market Research, slides 80 and 81.

<sup>289</sup> Similarly, an email could be sent from a laptop/PC or other device. However, ComReg considers that such forms of communication also lack the immediacy of contact that is facilitated by a call.

**Shorten calls or request a call back instead of making an off-net call from a fixed line**

- 4.168 A HM might be constrained in setting its FTR above the competitive level if, in response to the FTR increase being passed through to the retail price, a sufficient number of consumers made shorter calls or requested a call back (say by leaving a voicemail). The intention in using either of these alternatives would be to reduce the length of communication and, consequently, lower costs.
- 4.169 An individual could keep calls deliberately short resulting in a lower overall retail charge for the call, given the reduced call duration. A person could also phone directly through to a called party's voice mailbox with the express intention of shortening the call and having the voicemail recipient call them back.
- 4.170 ComReg notes that the practices of shortening a call or leaving a voicemail still involve the payment of a FTR by the originating Service Provider to the call/voicemail recipient's FSP, although termination revenues would be lower, having regard to the duration of a call. The question is whether, in response to the pass-through of an FTR increase into off-net fixed voice call charges, a sufficient number of callers would engage in this practice such that it would make the FTR increase unprofitable (when also considered in light of the extra FTR revenue accruing from those callers whose calling patterns remained unchanged).
- 4.171 In order for a call back to be successful, (either in response to a voicemail or through a specific service offered by Service Providers), the calling party and the called party must agree that a return-call will be made. The success of call back requires that the call recipient is willing to become the caller and pay the cost of making the call, including the termination charges. The CPP principle means that the called party pays no contribution towards the cost of the call.

- 4.172 The 2016 Market Research did not ask residential and SME RFVC subscribers whether, in response to a 1 cent increase in the cost of calling a subscriber of another FSP, they would consider reducing the length of the call/make fewer calls. It did ask, however, whether subscribers would make less calls on their landline, or send more emails and call-me texts. Of the 30% of 132 residential standalone RFVC subscribers that were likely to change their behaviour,<sup>290</sup> five respondents indicated that making fewer calls from fixed line phones was one of the actions likely to be considered, while another two indicated that they would send more emails or call-me texts.<sup>291</sup> Similarly, of the 25% of 485 bundled RFVC subscribers that were likely to change their behaviour and cancel/downgrade their bundle of services, 11 respondents indicated that they would keep their bundle, but reduce their out of bundle spending on calls.
- 4.173 SME RFVC subscribers also reported a low incidence of reducing the number of calls from their fixed line phone in response to a 1 cent price increase for calling a subscriber of another FSP.<sup>292</sup>
- 4.174 Cost/network awareness issues discussed in paragraphs 4.34 to 4.73 above, are also likely to impact the degree to which consumers would shorten the length of calls or request a call back.

**Preliminary conclusion on shortening calls or requesting call back instead of making an off-net call from a fixed line**

- 4.175 Having regard to the analysis set out above, ComReg considers that, in response to an increase in FTRs, insufficient numbers of consumers are likely to shorten call lengths and/or request a call back such that it would make the FTR increase unprofitable. ComReg is, therefore, of the preliminary view that shortening call lengths and/or requesting call backs are not likely to pose an effective indirect competitive constraint on FTRs.

**Delay making the off-net fixed line call to a time of day/week when the cost is cheaper**

- 4.176 A HM might be constrained in setting its FTR above the competitive level if, in response to the FTR increase being passed through to the retail price, a sufficient number of consumers were to switch to making calls at a time of day when the cost of a call may be cheaper.

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<sup>290</sup> 30% (n=39) of surveyed residential standalone RFVC subscribers.

<sup>291</sup> 2016 Consumer FVCT Market Research, slide 89 and Annex 1 of this Consultation. Note, when percentages are represented as a percentage of all surveyed residential standalone RFVC subscribers it equates to 14%. It should be noted, however, that is not possible to quantify the extent to which respondents would reduce the number of calls they make.

<sup>292</sup> 2016 SME FVCT Market Research, slide 70.

4.177 Delaying making an off-net call to a RFVC subscriber to a time of day when it is cheaper may be a viable alternative for some consumers, particularly where immediacy of contact is not a priority. As noted in the discussion of retail pricing structures above, in some entry-level RFVC tariff plans inclusive minutes apply only for calls made during off-peak times. However, these packages tend to offer unlimited or large amounts of inclusive local/national call minutes to fixed numbers. Thus, while calling parties might defer some of their voice calls to cheaper times of the day/week, the availability of unlimited or large amounts of inclusive minutes for such periods could result in a reduction in, rather than an elimination of, FVCT revenue,<sup>293</sup> as at the wholesale level an off-peak/weekend FTR is still levied by various operators, including Eircom, as set out in the RIO and STRPL.<sup>294</sup> Limited consumer cost and network awareness, as discussed above, is also likely to impact the degree to which consumers would be incentivised to delay making a call to an RFVC subscriber.

**Preliminary conclusion on delaying making the off-net fixed line call to a time of day/week when the cost is cheaper**

4.178 Having regard to the analysis set out above, ComReg considers that, in response to an increase in FTRs, insufficient numbers of consumers are likely to switch to making a mobile-to-fixed or an off-net fixed-to-fixed call at a time when call costs are lower such that it would make an FTR increase unprofitable. ComReg is therefore of the preliminary view that delaying calls is not, therefore, likely to pose an effective competitive constraint on FTRs.

**Preliminary conclusion on fixed retail demand-side substitution**

4.179 Having regard to the factors likely to impact retail consumer behaviour on the Relevant FVCT Markets, ComReg has considered in paragraphs 4.121 to 4.178 whether the following are likely to be effective retail demand-side substitutes for an off-net fixed-to-fixed call or a mobile-to-fixed call and while they would prove an effective indirect constraint, and whether they would act as an effective indirect constraint on a SSNIP by a HM:

- Making a fixed-to-mobile call instead;
- Making a mobile-to-mobile call instead;
- Making an on-net fixed-to-fixed call instead;
- Making an unmanaged VoIP-to-VoIP call instead;

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<sup>293</sup> The reduction in FVCT revenue for the call would be calculated having regard to the difference between the peak FTR and off-peak/weekend FTR multiplied by the call duration.

<sup>294</sup> The RIO is the Reference Interconnect Offer, which sets out the interconnection services which an FSP or MSP offers to other Service Providers wishing to interconnect with it, and the prices which it charges for these services. The STRPL (Switched Transit Routing and Price List) is a document published by openeir, Eircom's wholesale business. According to page 7 thereof, it "contains details of the services terminating on the networks of Authorised Operators who have requested openeir to open number ranges that have been granted to them by the National regulator in the Numbering Plan."

- Sending an off-net SMS or Instant Message using OTT application;
- Sending an email;
- Shortening calls or requesting a call back; and
- Delaying a call to a time of day when the cost of making calls to fixed line phones is lower.

4.180 ComReg considers that substitution to the alternative forms of communication listed above, either individually or collectively, is unlikely to pose a sufficiently effective competitive indirect constraint on the FTR setting behaviour of a HM supplier of FVCT.

4.181 Having regard to the information available, it is also ComReg's preliminary view that this position is not likely to change sufficiently in the immediate to medium term, such that it would give rise to a different view over the lifetime of this market review (typically a three-year time horizon).

### **RMVC Demand-Side Substitution**

4.182 The starting point of an RMVC demand-side substitution analysis for an off-net call to a subscriber of a particular Service Provider is to examine whether, in response to a SSNIP of MTRs, instead of making such a call consumers are likely to consider the following as effective substitute forms of communication:

- Make a mobile-to-fixed instead of an off-net mobile-to-mobile call this is discussed in paragraphs 4.183 to 4.191;
- Make a fixed-to-fixed call instead of an off-net mobile call this is discussed in paragraphs 4.192 to 4.196;
- Make an on-net mobile-to-mobile call instead of an off-net mobile call is discussed in paragraphs 4.197 to 4.207
- Make an unmanaged VoIP call instead of an off-net mobile call is discussed in paragraphs 4.208 to 4.220;
- Send an off-net SMS or instant message using an OTT application instead of making an off-net mobile call is discussed in paragraphs 4.221 to 4.226;
- Send an email instead of making an off-net mobile call is discussed in paragraphs 4.227 to 4.231;
- Shorten calls or request a call back instead of making an off-net mobile call is discussed in paragraphs 4.232 to 4.238;
- Delay making the off-net mobile call to a time of day/week when the cost is cheaper is discussed in paragraphs 4.239 to 4.242;

### **Make a mobile-to-fixed instead of an off-net mobile-to-mobile call**

- 4.183 An increase in MTRs by a HM might be unprofitable if, in response, a sufficient number of consumers switched to making a mobile-to-fixed instead of an off-net mobile-to-mobile call. The motivation for this behaviour would be to avoid the higher cost of the off-net mobile call and, presumably, to take advantage of the lower cost of a mobile call to a fixed line.
- 4.184 RMVC tariff plans are such that the costs of making an off-net call to a mobile and landline are largely the same across both prepay and billpay price plans. In addition, billpay customers' basic tariffs (and prepay customers to a lesser extent) include varying amounts of bundled minutes which can be used for calls to subscribers of any Service Provider. If this off-network pricing approach were to persist absent regulation, this would likely reduce a consumer's incentive to switch to a mobile-to-fixed call since the costs are the same irrespective of the identity of the called party's Service Provider (see Annex 3 – Price Plans below).
- 4.185 ComReg also considers that an insufficient number of RMVC subscribers are likely to consider a mobile-to-fixed call as a viable alternative to an off-net mobile-to-mobile call. This, in ComReg's view, is because the characteristics of RFTS and RMTS are different for the reasons set out below.
- 4.186 Fixed line phones are typically associated with static locations such as households and businesses, whereas mobile phones are associated with individuals who may be on the move.<sup>295</sup> This means that RMVC subscribers are contactable and can make and receive calls, irrespective of location. Thus, it is more likely that an individual can have immediate contact with a called party when contacting them on their mobile, than is the case for calls to fixed lines.
- 4.187 Given that RMVC subscribers are, in ComReg's view, likely to consider immediacy of contact to be a priority when making a call,<sup>296</sup> this suggests that, in the case of mobile-to-fixed calls, there is a sufficient possibility that contact would not be made at all or in a timely fashion, for example, because the called individual is not present at the fixed line location.<sup>297</sup>

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<sup>295</sup> Converged services allow customers that wish to be contactable on a Geographic Number, also to be able to receive calls to that Geographic Number on their mobile phone if the call is not answered via landline.

<sup>296</sup> Given that other forms of communications such as a text message (SMS or instant message using OTT application) and/or email typically involve a less immediate response.

<sup>297</sup> In this regard, ComReg notes that only 17% of consumer respondents indicated that they avail of converged services. See slide 46 of the 2016 FVCT Market Consumer Research.

- 4.188 Landline ownership also impacts the degree to which RMVC subscribers can substitute off-net mobile-to-mobile calls with mobile-to-fixed calls. As noted in paragraph 3.26 above, the number of fixed voice subscriptions has been decreasing in recent quarters. The 2016 Market Research indicated that 54%<sup>298</sup> of residential consumers<sup>299</sup> and 89%<sup>300</sup> of SME consumers with mobile phones indicated that they had a fixed line at their premises.<sup>301</sup> This suggests that, even if RMVC subscribers were to make a mobile-to-fixed call instead of an off-net mobile-to-mobile call, it is only likely to be potentially viable for a subset of called parties (assuming that the called party immediately answers the call).
- 4.189 Observed mobile voice traffic patterns indicate that the majority of calls made by RMVC subscribers are (on- and off-net) mobile-to-mobile calls. In Q4 2016 33% of all originated calls were off-net mobile-to-mobile calls compared to 11.6% for mobile-to-fixed calls. The annual decline in mobile-to-fixed traffic (-3%) contrasts with the annual growth in off-net mobile-to-mobile traffic (+6%), suggesting limited substitutability between these two types of calls.<sup>302</sup>
- 4.190 Furthermore, ComReg notes that, as part of the 2016 Market Research, residential consumer and SME consumer respondents were asked whether a 1 cent and (in the case of consumer respondents only) separately a 3 cent increase in the price of an off-net mobile-to-mobile call would affect their behaviour when making such calls. In response, consumer and SME respondents that would change their behaviour at 1 cent (16% and 16% respectively) were most likely to reduce either the number or length of off-net mobile-to-mobile calls. Similar reactions were observed in the case of consumer respondents only if the price were to increase by 3 cent.

**Preliminary conclusion on making a mobile-to-fixed instead of an off-net mobile-to-mobile call**

- 4.191 Having regard to the analysis set out above, ComReg considers that, in response to an increase in MTRs, insufficient numbers of RMVC subscribers are likely to switch to making a mobile-to-fixed call instead of an off-net mobile-to-mobile call such that it would make the MTR increase unprofitable. ComReg is, therefore, of the preliminary view that a mobile-to-fixed call is not likely to pose an effective indirect competitive constraint on MTRs.

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<sup>298</sup> 2016 Consumer MVCT Market Research, Slide 60

<sup>299</sup> Among respondents aged 34 and under, the level of landline ownership is even lower, at 39%.

<sup>300</sup> 2016 SME MVCT Market Research, Slide 80

<sup>301</sup> 2016 Consumer MVCT Market Research, slide 60 and slide 80 of the 2016 MVCT SME Market Research.

<sup>302</sup> See Figures 4.3.3.2 and 4.3.3.3 of the Q4 2016 QKDR.



### **Make a fixed-to-fixed call instead of an off-net mobile call**

- 4.192 An increase in MTRs by a HM might be unprofitable if, in response, a sufficient number of consumers substituted making an off-net mobile-to-mobile call with a fixed-to-fixed call instead. The motivation for this behaviour would be to avoid the higher cost of the off-net mobile call and, presumably, to take advantage of the lower cost of a fixed-to-fixed call.
- 4.193 In this regard, it should be noted that only 54% of consumers<sup>303</sup> indicated that they have purchased both RFVC and RMVC, thus preventing RMVC subscribers who do not also have an RFVC subscription from substituting to a fixed-to-fixed call.
- 4.194 Observed mobile voice traffic patterns<sup>304</sup> indicate that fixed-to-fixed traffic has been gradually declining since the previous market review with a 14.9% decline in the period Q4 2015 to Q4 2016, and an overall 46% decline since the last market review. As noted in paragraph 4.189, over the same period off-net mobile-to-mobile traffic increased by 6%, thus suggesting limited substitutability between these types of calls from an RMVC subscriber perspective.
- 4.195 However, RMVC subscribers who also have a RFVC subscription and are price sensitive, particularly where their RFVC tariff includes unlimited free minutes for fixed-to-fixed calls, may utilise this option when the called party is at a fixed location. A further motivation for the RMVC subscriber making a fixed-to-fixed call could be to avoid using any limited number of inclusive free minutes available in their RMVC tariff - thereby keeping such minutes for mobile-to-mobile calls.

### **Preliminary conclusion on making a fixed-to-fixed call instead of an off-net mobile call**

- 4.196 Having regard to the analysis set out above, ComReg considers that, in response to an increase in MTRs, insufficient numbers of consumers are likely to switch to making a fixed-to-fixed call instead of an off-net mobile-to-mobile call such that it would make the MTR increase unprofitable. ComReg is, therefore, of the preliminary view that a fixed-to-fixed call is not likely to pose an effective indirect competitive constraint on MTRs.

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<sup>303</sup> 2016 Consumer MVCT Market Research, slide 60.

<sup>304</sup> See paragraph 3.19 above.

### **Make an on-net mobile-to-mobile call instead of an off-net mobile call**

- 4.197 An increase in MTRs by a HM might be unprofitable if, in response, a sufficient number of consumers switched to making an on-net mobile-to-mobile call instead of an off-net call to a mobile number. The motivation for this behaviour would be to avoid the higher cost of calling the mobile from a landline/off-net mobile, and to take advantage of the lower cost of an on-net mobile call.<sup>305</sup>
- 4.198 In order for on-net mobile calls to be a viable substitute it would be necessary for either the calling party or the called party to have multiple RMVC subscriptions, one of which must be with the same MSP for both parties. This could take the form of either party having two mobile phones, each with their own network specific SIM card, or else having one mobile phone, but multiple SIM cards. In these scenarios, consumers would effectively turn the call into an on-net call, either by switching phone or switching the SIM card.
- 4.199 MSPs typically do not differentiate their pricing for off-net calls, be it to either mobiles or fixed lines.<sup>306</sup> Similarly, the majority of billpay tariffs do not differentiate charges for out of bundle on-net and off-net calls, with some billpay tariffs offering specific or unlimited amounts of free minutes to any network. In terms of prepay tariffs, although a distinction between on-net and off-net calls is made in some of the advertised tariffs (with only on-net calls being included as part of the free minute allowance), MSPs have been less likely to charge their subscribers different prices for on-net and off-net calls in recent years.
- 4.200 Given the cost of maintaining multiple billpay subscriptions, ComReg considers that this option is unlikely to be a viable alternative for a sufficient number of consumers – particularly as mobile users are distributed across a range of MSPs. Notwithstanding this, a secondary prepaid subscription (phone or SIM card) could be an attractive option for some consumers.
- 4.201 ComReg also considers that the use of multiple SIM cards (with the same mobile phone), while possible, is likely to be highly inconvenient for consumers, given that it requires powering down the mobile handset to insert the appropriate same-network SIM card, unless the consumer, foreseeing this likelihood, purchases a handset which allows for two SIM cards to be inserted simultaneously. It also would require the consumer, on a call by call basis, to accurately identify the MSP of the party being called and potentially to have a SIM card for every MSP – particularly given mobile users are distributed across a range of MSPs. As noted in paragraph 4.60 above, both consumers and SMEs tend to have low levels of awareness of the called party's MSP identity. These factors are likely to undermine the effective use of on-net substitution.

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<sup>305</sup> ComReg notes that on-net mobile-to-mobile calls do not involve an explicit termination payment as the calling party's MSP is the same as that of the called party.

<sup>306</sup> See, for instance, <http://www.three.ie/pdf/current-priceguide.pdf>

- 4.202 It is also worth noting that a billpay RMVC subscriber may face difficulties in using a second SIM card on the same phone. It is particularly common for retail MSPs to 'SIM Lock' handsets (during minimum contract periods), thereby blocking the use of other network SIM cards in such handsets.
- 4.203 Nevertheless, as part of the 2016 Market Research, ComReg asked residential and SME consumers to indicate whether they have multiple mobile subscriptions/SIM cards. Only 1% of responding residential consumers indicated<sup>307</sup> they have more than one mobile phone number.<sup>308</sup> Similarly, 7% of responding SMEs indicated<sup>309</sup> that they use more than one MSP for all of the mobile phone numbers provided by the SME to employees, with 16% of these respondents expressing cost as the main reason for doing so.<sup>310</sup>
- 4.204 Alternatively, subscribers could switch their provider of RMVC in order to be on the same network as those they are calling – thereby availing of cheaper on-net call charges. ComReg recognises that this may be a viable option for some subscribers, in particular those that are price sensitive and make a sufficiently large number of calls to subscribers of the same MSP (although there may be switching costs such as those involved in breaking a minimum term billpay contract). Such customer switching in response to increases in MTRs would impact the calling party's Service Provider as well as the terminating MSP.
- 4.205 As part of the 2016 Market Research, residential and SME RMVC subscribers were asked whether, in response to a 1 cent and 3 cent increase in the cost of calling a subscriber of another MSP, they would consider switching their MSP provider.<sup>311</sup> In each scenario, of those consumer respondents that were likely to change their behaviour,<sup>312</sup> 4% in the case of a 1 cent increase (7 respondents) and 3% in the case of 3 cent increase (11 respondents) of respondents indicated<sup>313</sup> that using a different SIM card, which was the same as that of the called party's network was one of the actions likely to be considered.

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<sup>307</sup> 2016 Consumer MVCT Market Research, slide 17.

<sup>308</sup> Given a mobile number is tied to each subscription/SIM card consumers were asked whether they had more than one phone number.

<sup>309</sup> 2016 SME MVCT Market Research, slide 23.

<sup>310</sup> 2016 SME MVCT Market Research, slide 26.

<sup>311</sup> It should be noted that these responses relate to a general switching of MSP provider and do not necessarily indicate the likelihood of switching to the MSP of the called party.

<sup>312</sup> Between 16% (n=166) and 37% (n=384) of all surveyed consumers.

<sup>313</sup> See slides 108 and 109 of the 2016 MVCT Market Consumer Research and Annex 2 of this Consultation. Note, when percentages are represented as a percentage of all surveyed consumers it equates to between 2% and 10% of consumer respondents.

4.206 Similarly, of those responding SMEs that were likely to change their behaviour in response to a 1 cent increase in the cost of making an off-net mobile-to-mobile calls,<sup>314</sup> 10% (8 respondents) indicated<sup>315</sup> that using a different SIM card, which was the same as that of the called party's network was one of the actions likely to be considered.

**Preliminary conclusion on making an on-net mobile-to-mobile call instead of an off-net mobile call**

4.207 Having regard to the analysis set out above, ComReg considers that insufficient numbers of consumers are likely to switch to making an on-net mobile-to-mobile call in response to an increase in MTRs, such that it would make the MTR increase unprofitable. ComReg is, therefore, of the preliminary view that an on-net mobile-to-mobile call is not likely to pose an effective indirect competitive constraint on MTRs.

**Make an unmanaged VoIP call instead of an off-net mobile call**

4.208 A HM might be constrained in setting its MTR above the competitive level if, in response to the MTR increase being passed through to the retail price, a sufficient number of consumers were to switch to making an unmanaged VoIP-to-VoIP call to a mobile instead of a fixed or off-net call to a mobile. The rationale for doing so would be to avoid the retail costs associated with making a mobile-to-mobile or a fixed-to-mobile call by bypassing the MTR charged by the MSP supplying MVCT services.

4.209 Calls via unmanaged VoIP services are typically free when calling other unmanaged VoIP users, but incur a cost when calling a RFVC or RMVC subscriber.<sup>316</sup> Unmanaged VoIP services are frequently used by end users via devices connected to the Internet (such as PCs, laptops, smartphones, tablets etc.) in order to communicate with other users on these devices.

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<sup>314</sup> 16% (n=82) of all surveyed SMEs.

<sup>315</sup> 2016 SME MVCT Market Research, slide 116 and Annex 2 of this Consultation.

<sup>316</sup> For example, see call rates [advertised](https://secure.skype.com/en/calling-rates?wt.mc_id=revamp&expo365=empty) by Skype at [https://secure.skype.com/en/calling-rates?wt.mc\\_id=revamp&expo365=empty](https://secure.skype.com/en/calling-rates?wt.mc_id=revamp&expo365=empty).

- 4.210 For an unmanaged VoIP-to-VoIP call to act as a potential alternative to a traditional call to a fixed number, both the calling party and the called party would need to have a data/broadband subscription,<sup>317</sup> a device connected to the Internet and the same unmanaged VoIP Service Provider.<sup>318</sup> While unmanaged VoIP-to-VoIP calls are typically free (and do not incur an MTR), both the calling party and called party may incur costs associated with data usage. Hence, unlike the CPP principle, the called party may face some costs (particularly when RFVC/broadband plans include limited amounts of inclusive free data) and this could impact their behaviour when receiving unmanaged VoIP calls, for instance, if a call is transmitted over 4G, rather than over WiFi.
- 4.211 Both parties, apart from having a data subscription, would also need to have a VoIP Service Provider in order to avoid a wholesale voice termination rate. This implies that the called party and calling party would need to have a smartphone or other device capable of operating on a data network and supporting the VoIP client. In this regard, ComReg notes that 74% of consumers<sup>319</sup> indicated that they own a smartphone while 82%<sup>320</sup> of SME respondents indicated that at least some of their employees are supplied with a smartphone. While the prevalence of smartphone ownership has increased since the last market review,<sup>321</sup> nevertheless, users will likely remain who do not have a smartphone over the period of this market review. The receipt of a VoIP call on a mobile phone is not feasible for this subset of RMVC subscribers, which currently numbers at 26% of consumer users and 18% of SME users, and which will likely decline over the lifetime of the market review.
- 4.212 As set out at paragraph 4.147, according to Eurostat, 70% of individuals access the Internet every day or almost every day<sup>322</sup> of 2016,<sup>323</sup> indicating that for 30% of end users the receipt of an unmanaged VoIP call is less likely to be a viable solution, given either their lack of access to the internet, or their habitual unwillingness to use the internet, where access is available.

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<sup>317</sup> It is possible to make a call originating on VoIP technology directly to a fixed number without the called party having a data/broadband subscription; however, this would not bypass the terminating network's termination charge. The use of such VoIP calls is not, therefore, likely to place a sufficient constraint on the FTR price-setting behaviour of a HM.

<sup>318</sup> It is not currently possible to make calls between different OTT applications (e.g. Skype and Facetime).

<sup>319</sup> 2016 Consumer MVCT Market Research, slide 24.

<sup>320</sup> 2016 SME MVCT Market Research, slide 8.

<sup>321</sup> See paragraph 4.164 of the 2012 MVCT Consultation where it was noted that almost 50% of RMVC subscribers had a smartphone.

<sup>322</sup> Defined as accessing the Internet every, or almost every, day on average within the last three months.

<sup>323</sup>

See <http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tin00092&plugin=1>.

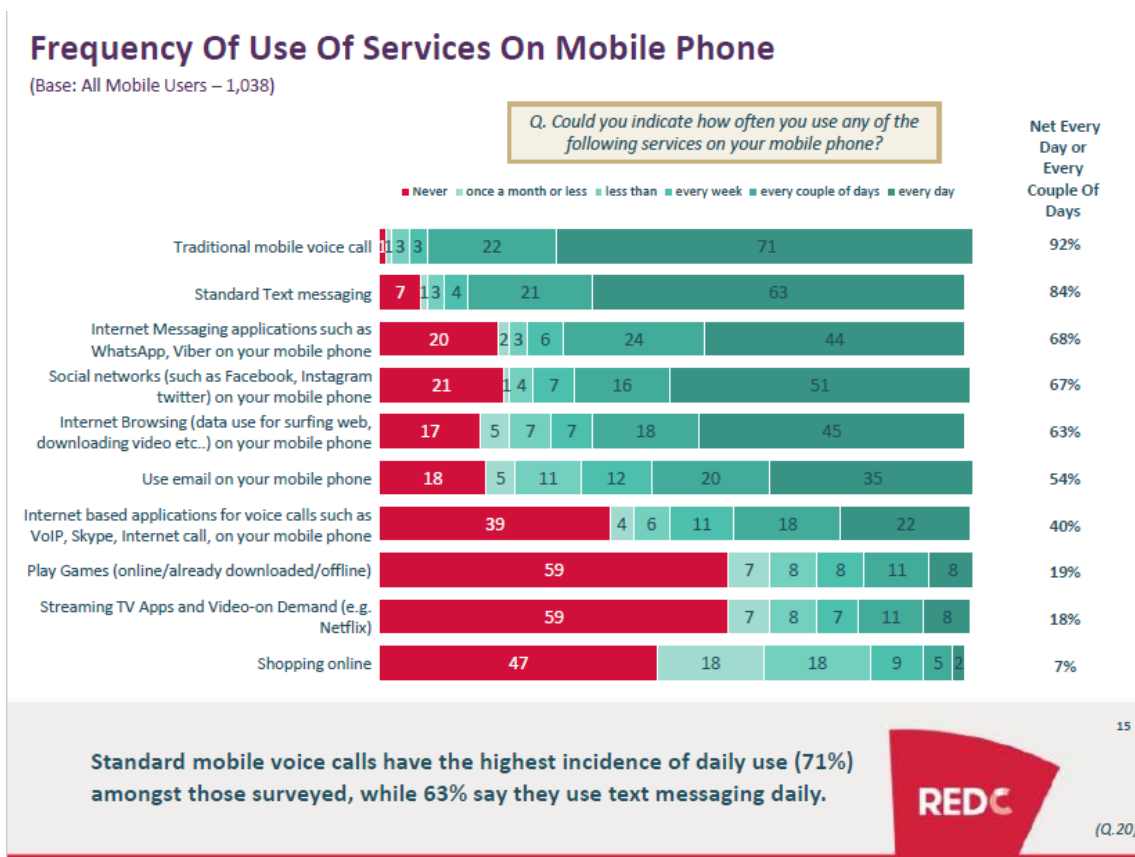
- 4.213 In addition, it is questionable whether the quality of a VoIP call would be sufficiently similar to a traditional voice call such that consumers would use them interchangeably. Quality of service issues may arise when using VoIP services on an unmanaged data network as bit rate error and latency issues can degrade call quality on VoIP services. Were this to occur often, in ComReg's preliminary view such functional differences between unmanaged VoIP and traditional voice call would likely undermine consumer usage of unmanaged VoIP calls as a substitute for traditional calling methods.
- 4.214 As part of the 2016 Market Research, residential and SME retail consumers were asked whether they use VoIP services, and how often they use these services. 33% of consumer respondents with smartphones noted that they have never used OTT services for receiving calls<sup>324</sup> and the remainder making/receiving VoIP calls with varying frequencies. Overall, 40% of consumer respondents noted that they make/receive VoIP calls every day or every couple of days. This compares to 92% of consumer respondents using traditional mobile-to-mobile calls every day or every couple of days as illustrated by Figure 51. Amongst SME respondents, 49% noted that they have never made/received VoIP calls.<sup>325</sup>
- 4.215 An unmanaged VoIP call essentially involves the use of a data/broadband network to make a call on an OTT platform (examples include Skype, Viber, WhatsApp etc.), potentially allowing a caller to bypass the terminating MSP, thereby avoiding the retail costs (and the termination charge) of making a traditional circuit-switched call.

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<sup>324</sup> 2016 Consumer MVCT Market Research, slides 15 and 25.

<sup>325</sup> 2016 SME MVCT Market Research, slide 31.

**Figure 51: Use of services on mobile phone cited by consumer respondents**



4.216 Furthermore, observed mobile voice traffic patterns indicate that mobile traffic (including off-net mobile-to-mobile traffic) has gradually increased since the previous market review by 14.7% – although this increase has been levelling off, with just a 0.1% increase in the period Q4 2015 to Q4 2016. Therefore, in ComReg’s preliminary view, unmanaged VoIP-to-VoIP calls have thus far had a limited impact on the volumes of RMVCs.

4.217 Unmanaged VoIP-to-VoIP calls appear to have had little impact on the MTRs charged by FSPs. While MTRs have reduced over time, data suggest that the driver of this reduction has been regulation, rather the competitive constraint posed by unmanaged VoIP. In particular, MSP changes to MTRs tend to follow the levels and implementation dates set out in ComReg decisions (most recently, the 2016 MTR Decision), whereby all 2012 SMP MSPs reduce their MTRs on the same day, and at the maximum permissible level. ComReg has not, at this preliminary stage, uncovered evidence that MSPs have reduced their MTRs due to the competitive constraint presented by unmanaged VoIP-to-VoIP calls.

- 4.218 As part of the 2016 Market Research, residential consumers were asked whether, in response to a 1 cent and 3 cent increase respectively in the cost of calling a subscriber of another MSP, they would consider making a VoIP or video call instead. In each scenario, of those consumer respondents that were likely to change their behaviour,<sup>326</sup> 13% (21 respondents) and 12% (46 respondents) of respondents respectively indicated<sup>327</sup> that making a VoIP or a video call was one of the actions likely to be considered.
- 4.219 Similarly, of the 16% (n=82) of SME respondents that were likely to change their behaviour, 44% (36 respondents) of such respondents indicated<sup>328</sup> that encouraging use of VoIP or video calls was one of the actions very likely to be considered.

**Preliminary conclusion on making an unmanaged VoIP call instead of an off-net mobile call**

- 4.220 Having regard to the analysis set out above, ComReg considers that, in response to an increase in MTRs, insufficient numbers of consumers are likely to switch to making an unmanaged VoIP-to-VoIP call to a mobile such that it would make the MTR increase unprofitable. ComReg is, therefore, of the preliminary view that an unmanaged VoIP-to-VoIP call (using a mobile device)<sup>329</sup> is not, therefore, likely to pose an effective indirect competitive constraint on MTRs.

**Send an off-net SMS or instant message using an OTT application instead of making an off-net mobile call**

- 4.221 A HM might be constrained in setting its MTR above the competitive level if, in response to the MTR increase being passed through to the retail price, a sufficient number of consumers were to switch to sending an SMS or instant message using an OTT application instead of making an off-net mobile call.<sup>330</sup> The rationale for doing so would be to avoid the retail cost associated with making an off-net mobile-to-mobile call.
- 4.222 ComReg's preliminary view is that there are sufficient functional differences between making an off-net mobile or fixed-to-mobile call and sending an off-net SMS or instant message using an OTT application, as described in detail at paragraphs 4.155 to 4.158 above.

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<sup>326</sup> Between 16% (n=166) and 37% (n=384) of all surveyed consumers.

<sup>327</sup> 2016 Consumer MVCT Market Research, slides 108 and 110 and Annex 2 of this Consultation. Note, when percentages are represented as a percentage of all surveyed consumers it equates to between 2% and 4% of consumer respondents.

<sup>328</sup> 2016 SME MVCT Market Research, slide 116 and Annex 2 of this Consultation.

<sup>329</sup> ComReg notes that these calls can be made on laptops and other such devices with internet capability.

<sup>330</sup> The level of fixed line originated SMS is virtually non-existent and this is unlikely to change in the short to medium term. ComReg does not accordingly consider fixed SMS in this analysis.



- 4.223 It should be noted that the MSP terminating the mobile voice call will also be the same MSP that would terminate an SMS. Given that SMS termination is not currently subject to regulation, terminating MSPs are entirely free to determine their SMS termination rates and these theoretically could be set at a rate above actual cost such that any competitive impact on voice calls (i.e. via termination rates) is minimised.<sup>331</sup> As set out above, the volume of SMS traffic has decreased by 15.7% in the period Q4 2015 to Q4 2016.<sup>332</sup>
- 4.224 As part of the 2016 Market Research, residential and SME RMVC subscribers were asked whether, in response to a 1 cent and a 3 cent increase respectively in the cost of calling a subscriber of another MSP, they would consider sending an SMS or instant message instead. In each scenario, of those residential consumers that were likely to change their behaviour,<sup>333</sup> 22% (36 respondents) and 26% (100 respondents) of respondents indicated<sup>334</sup> respectively that sending an SMS was one of the actions likely to be considered. Sending an instant message on an OTT application was considered by between 13% (21 respondents) and 20% (77 respondents) of respondents respectively.
- 4.225 Similarly, of the 16% of SME respondents that were likely to change their behaviour 63% (n=51) of such respondents indicated<sup>335</sup> that encouraging employees to send an SMS was one of the actions very likely to be considered.

**Preliminary conclusion on sending an off-net SMS or instant message using an OTT application instead of making an off-net mobile call**

- 4.226 Having regard to the analysis set out above, ComReg considers that, in response to an increase in MTRs, insufficient numbers of consumers are likely to switch to sending an off-net SMS or instant message using an OTT application<sup>336</sup> such that it would make an MTR increase unprofitable. ComReg is, therefore, of the preliminary view that an SMS/Instant Message via OTT is not likely to pose an effective indirect competitive constraint on MTRs.

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<sup>331</sup> SMS termination rates, at 3.174 cent, are currently set by all MSPs at a level significantly above the regulated MTRs.

<sup>332</sup> ComReg notes that such reductions do not appear to have had any material impact on wholesale SMS termination rates.

<sup>333</sup> Between 16% (n=166) and 37% (n=384) of all surveyed consumers.

<sup>334</sup> 2016 Consumer MVCT Market Research, slides 108 and 110 and Annex 2 of this Consultation. Note, when percentages are represented as a percentage of all surveyed consumers it equates to between 4% and 10% of consumer respondents.

<sup>335</sup> 2016 SME MVCT Market Research, slide 116 and Annex 2 of this Consultation.

<sup>336</sup> ComReg considers that similar to an instant message, use of social media is unlikely to make an MTR increase unprofitable. Use of social media is also examined in the 2016 Market Research.

### **Send an email instead of making an off-net mobile call**

- 4.227 A HM might be constrained in setting its MTR above the competitive level if, in response to the MTR increase being passed through to the retail price, a sufficient number of consumers were to switch to sending an email instead of making an off-net mobile call to a RMVC subscriber. The rationale for doing so would be to avoid the retail cost associated with making an off-net mobile-to-mobile or a fixed-to-mobile call.
- 4.228 Email has similar functional characteristics to a text message in that it is not a real-time application. There are, however, a number of differences. First, for a called party to receive an email on their mobile phone they would need to have both a smart phone and a data plan. Secondly, there is no limit on the number of characters that can be sent in an email.
- 4.229 As part of the 2016 Market Research, respondents were asked whether they use email on their mobile phone and if so, how often.<sup>337</sup> Amongst consumer respondents 18% indicated that they never use email with 54% indicating that they use this form of communication on their mobile phone either every day or every couple of days.
- 4.230 While some consumers may find email<sup>338</sup> to be a close substitute to making a call to a mobile phone, particularly for short calls or where immediacy of contact is not a priority, ComReg's preliminary view is that it is not likely to be the case for a sufficient number of consumers to switch in response to a SSNIP to render it unprofitable. Limited consumer cost and network awareness is also likely to impact the degree to which consumers would be incentivised to utilise an email as a substitute for a call to a mobile.

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<sup>337</sup> Slide 15 of the 2016 Consumer MVCT Market Research and slide 95 of the 2016 MVCT Market SME Research.

<sup>338</sup> Similarly, an email could be sent from a laptop/PC or other device. However, ComReg considers that such forms of communication also lack the immediacy of contact that is facilitated by a call.

**Preliminary conclusion on sending an email instead of making an off-net mobile call**

4.231 The 2016 Market Research did not specifically ask respondents whether, in the context of a SSNIP, they would switch to sending an email. However, 500 SME respondents were asked how they would respond if mobile operators ceased offering preferential rates between company mobiles. 24%, or 120, indicated that they would make greater use of email to communicate between employees. Having regard to the analysis set out above, ComReg considers that, in response to an increase in MTRs, insufficient numbers of consumers are likely to switch to sending an email instead of a call to a mobile phone, such that it would make the MTR increase unprofitable. ComReg is, therefore, of the preliminary view that email is not likely to pose an effective indirect competitive constraint on MTRs.

**Shorten calls or request a call back instead of making an off-net mobile call**

4.232 A HM might be constrained in setting its MTR above the competitive level if, in response to the MTR increase being passed through to the retail price, a sufficient number of consumers were to make shorter calls or request a call back (say by leaving a voicemail, sending a text message or sending an instant message via an OTT application). The intention in using either of these alternatives would be to reduce the length of communication and, consequently, lower costs, as described in detail at paragraphs 4.168 to 4.171 above.

4.233 The success of call back requires that the call recipient is willing to become the caller and pay the cost of making the call, including the termination charges. The CPP principle means that the called party pays no contribution towards the cost of the call. Nevertheless, some consumers, as an alternative to calling a mobile may opt to send a 'call-me' text message, with a view to getting the called party to phone them back. Alternatively, the called party might not answer the call, but text or call back the calling party instead.

4.234 As part of the 2016 Market Research, residential RMVC subscribers were asked whether, in response to a 1 cent and a 3 cent increase in the cost of calling a subscriber of another MSP, they would consider reducing the length of the call. In each scenario, of those residential respondents that were likely to change their behaviour,<sup>339</sup> 37% (61 respondents) and 37% (142 respondents) respectively of such respondents indicated<sup>340</sup> that reducing the length of made calls was one of the likely actions to be considered.

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<sup>339</sup> Between 16% (n=166) and 37% (n=384) of all surveyed consumers.

<sup>340</sup> 2016 Consumer MVCT Market Research, slides 108 and 110 and Annex 2 of this Consultation. Note, when percentages are represented as a percentage of all surveyed consumers it equates to between 6% and 14% of consumer respondents.

- 4.235 Residential RMVC subscribers were also asked whether, in response to a 1 cent and a 3 cent increase in the cost of calling a subscriber of another MSP, they would consider requesting a callback by means of text message. In each scenario, of those residential respondents that were likely to change their behaviour,<sup>341</sup> 7% (12 respondents) and 7% (27 respondents) respectively of such respondents indicated<sup>342</sup> that requesting a callback by means of text message was one of the actions likely to be considered.
- 4.236 Similarly, of those SME respondents that were likely to change their behaviour,<sup>343</sup> 67% (55 respondents) of such respondents indicated<sup>344</sup> that encouraging employees to reduce the length of calls they make was one of the actions very likely to be considered.
- 4.237 The cost and network awareness issues discussed above are also likely to impact the degree to which consumers would shorten the length of calls or request a call back.

**Preliminary conclusion on shortening calls or requesting a call back instead of making an off-net mobile call**

- 4.238 Having regard to the analysis set out above, ComReg considers that, in response to an increase in MTRs, insufficient numbers of consumers are likely to shorten call lengths and/or request a call back such that it would make an MTR increase unprofitable. ComReg is, therefore, of the preliminary view that shortening call lengths and/or requesting call backs are not likely to pose an effective indirect competitive constraint on MTRs.

**Delay making the off-net mobile call to a time of day/week when the cost is cheaper**

- 4.239 A HM might be constrained in setting its MTR above the competitive level if, in response to the MTR increase being passed through to the retail price, a sufficient number of consumers were to switch to making calls at a time of day when the cost of a call may be cheaper.
- 4.240 Delaying the making of an off-net call to a RMVC subscriber to a time of day when it is cheaper may be a viable alternative for some consumers, particularly where immediacy of contact is not a priority.

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<sup>341</sup> Between 16% (n=166) and 37% (n=384) of all surveyed consumers.

<sup>342</sup> 2016 Consumer MVCT Market Research, slides 108 and 110 and Annex 2 of this Consultation. Note, when percentages are represented as a percentage of all surveyed consumers it equates to between 6% and 14% of consumer respondents.

<sup>343</sup> 16% (n=82) of all surveyed SMEs.

<sup>344</sup> 2016 SME MVCT Market Research, slide 116 and Annex 2 of this Consultation. When percentages are represented as a percentage of all surveyed consumers it equates to 11% of SME respondents.

4.241 However, the majority of retail mobile price plans do not differentiate their call charges by time of day, i.e. a flat rate charge applies throughout the day. Therefore, it may not be possible to make a call at a cheaper 'off-peak' time. Even if such an option were available and utilised, it would result in a reduction in, rather than an elimination of, MTR revenue,<sup>345</sup> as at the wholesale level an off-peak/weekend MTR would still be levied.<sup>346</sup>

**Preliminary conclusion on delaying making the off-net mobile call to a time of day/week when the cost is cheaper**

4.242 The 2016 Market Research asked respondents whether, in the context of a SSNIP, they would delay making the call until a time when call charges are cheaper (i.e. switch from peak to off-peak calling). Of a total of 1,038 consumer respondents, 16%, or 166 indicated that they would change their behaviour in response to a 1 cent SSNIP, while 37% or 384 indicated that they would change their behaviour in response to a 3 cent SSNIP. Of these, 15%, or 24 respondents, and 12%, or 46 respondents indicated that they would delay making a call until a time when call costs were lower. Having regard to the analysis set out above, ComReg considers that, in response to an increase in MTRs, insufficient numbers of consumers are likely to switch to making a fixed-to-mobile or an off-net call to a mobile at a time when call costs are lower, such that it would make an MTR increase unprofitable. ComReg is therefore of the preliminary view that delaying calls is not likely to pose an effective competitive constraint on MTRs.

**Preliminary conclusion on mobile retail demand-side substitution**

4.243 Having regard to the factors likely to impact retail consumer behaviour on the Relevant MVCT Markets, ComReg has considered in paragraphs 4.183 to 4.242 whether the following are likely to be effective retail demand-side substitutes for a fixed-to-mobile or an off-net mobile-to-mobile call to a subscriber on a mobile network:

- Making a mobile-to-fixed call;
- Making a fixed-to-fixed call;
- Making an on-net mobile-to-mobile call;
- Making an unmanaged VoIP call;
- Sending an off-net SMS or Instant Message using an OTT application;
- Sending an email;
- Shortening calls or requesting a call back; and

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<sup>345</sup> The reduction in MVCT revenue for the call would be calculated having regard to the difference between the peak MTR and off-peak/weekend MTR multiplied by the call duration.

<sup>346</sup> Based on responses received to ComReg's Statutory Information Request, MTRs are not currently differentiated by time of day of the week.

- Delaying a call to a time of day when the cost of making calls to mobiles is lower.
- 4.244 ComReg has reached the preliminary view that substitution to the alternative forms of communication listed above, either individually or collectively, is unlikely to pose an effective competitive constraint on MTRs.
- 4.245 Having regard to the information available, it is also ComReg's preliminary view that this position is not likely to change sufficiently in the immediate to medium term, such that it would give rise to a different view over the lifetime of this market review (typically a three year time horizon).

### **Retail Supply-Side Substitution**

- 4.246 ComReg now moves to consider the instance of retail supply-side substitution. A HM might be constrained in setting its termination rate above the competitive level if, in response to the termination rate increase, a Service Provider that does not currently offer off-net retail calls to fixed line or mobile phones switched to doing so (for instance, as a new entrant or by switching existing production) and started supplying retail calls to off-net fixed line or mobile phones. Such supply-side substitution<sup>347</sup> would only pose an effective indirect constraint were it to make the HM's termination rate increase (above the competitive level) unprofitable.
- 4.247 In order to do this, the Service Provider would have to have the ability to provide a voice call service to a number which was not reliant on the provision of WVCT by the called party's Service Provider (and to do so in a timely manner, without incurring significant costs). Currently, it is the terminating Service Provider which controls the final routing and termination of calls to RFVC or RMVC subscribers' numbers and, as a consequence, retail supply-side substitution is neither technically nor contractually feasible.<sup>348</sup>

### **Preliminary conclusion on retail supply-side substitution**

- 4.248 ComReg's preliminary view is that retail supply-side substitution is not likely to pose an effective constraint on the termination rate-setting behaviour of a HM supplier of WVCT services. However, ComReg returns to this issue in the context of its discussion of supply-side substitution at the wholesale level, set out at paragraphs 5.113 to 5.133 below.

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<sup>347</sup> As noted in paragraph 5.116, in order for supply-side substitution to effectively constrain a termination rate price above the competitive level, its effects would need to be likely to be equivalent to those of demand substitution in terms of effectiveness and immediacy.

<sup>348</sup> The special case of OTT bypass is discussed in the context of wholesale supply-side substitution at paragraphs 5.225 to 5.230 below.

## Overall Preliminary Conclusions on the RFVC and RMVC Assessment

4.249 Having regard to the analysis set out above, it is ComReg's preliminary view that there are unlikely to be effective retail demand-side or retail supply-side substitutes which would, within the timeframe of this market review, indirectly constrain a SSNIP in FTRs or MTRs by a Service Provider supplying FVCT or MVCT.

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|--------------|--|
| <b>Q. 2.</b> | <b>Do you agree with ComReg's preliminary conclusions on the retail product and geographic market assessment to the extent that it informs the analysis of the Relevant FVCT Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual or other evidence supporting your views.</b> |
| <b>Q. 3.</b> | <b>Do you agree with ComReg's preliminary conclusions on the retail product and geographic market assessment to the extent that it informs the analysis of the Relevant MVCT Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual or other evidence supporting your views.</b> |

## 5 Wholesale Relevant FVCT and MVCT Markets Definitions

### Introduction

- 5.1 In this Section, ComReg sets out its preliminary views in respect of the appropriate Relevant Termination Market definitions from both a product market and a geographic market perspective. In order to assist readers, ComReg first defines the relevant FVCT product and geographic markets, and then moves to define the relevant MVCT product and geographic markets. In order to avoid unnecessary duplication, text in the MVCT market analysis will, where appropriate, refer back to any relevant explanatory text in the FVCT analysis.
- 5.2 Before considering the detailed definition of the Relevant Termination Markets, ComReg addresses some preliminary issues which could have a bearing on its approach to market definition, in particular, the starting candidate product market against which a substitutability analysis is carried out. While some of these issues may appear rudimentary in nature, they are discussed for completeness, given their potential to impact on the definition of the Relevant Termination Markets.
- 5.3 As set out in paragraph 1.22 above, ComReg makes use of the Modified Greenfield Approach in carrying out its assessment.

### Defining the Relevant FVCT Market(s)

- 5.4 The European Commission has established that the wholesale FVCT market is susceptible to ex ante regulation, defining a market for:
- “Call termination on individual public telephone networks provided at a fixed location.”*
- 5.5 As is clear from the 2014 Recommendation, the European regulatory framework aims at identifying potential bottlenecks that may lead to competition problems in one or more related markets. FVCT services form part of a set of complementary wholesale inputs (collectively referred to as ‘interconnection services’), also including wholesale fixed voice call origination (**‘FVCO’**) and wholesale fixed call transit (**‘Transit’**) services, used to support end-to-end provision of retail voice calls to end users at a fixed location.<sup>349</sup>

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<sup>349</sup> In addition to the SMP designations for FVCT rendered in the 2007 market review, ComReg designated Eircom with SMP in the markets for Fixed Voice Call Origination (**‘FVCO’**) and Transit services in 2007. In 2015, ComReg concluded that Eircom continues to hold SMP on the FVCO market, and that regulation of the Transit Market is no longer warranted (See 2015 *Wholesale Fixed Voice Call Origination and Transit Markets Response to Consultation and Decision* (Decision D05/15), (the **‘2015 FVCO and Transit Decision’**)). Eircom is currently required by regulation to provide access to FVCO.



## A technical and functional description of FVCT

- 5.6 FVCT represents the final step in the active process involved in switching and routing a voice call to a device connected to an assigned Geographic Number (or a Geographic Number whose Rights of Use have been transferred).<sup>350</sup> In the 2007 FVCT Consultation, the Relevant FVCT Markets were defined to include the following services:<sup>351</sup>

*“Termination services provide primary switching/routing functionality at the terminating end of a call. The primary switching/routing stage is the final point in the network where call routing is done on a call-by-call basis. It incorporates carriage from the end of the previous stage in the call routing (either CO or Transit), through the primary switching/routing stage (including, where appropriate, traffic concentration and/or non-call-by-call routing subsequent to the primary switching/routing stage), to the end user’s local loop, including the subscriber’s line card or equivalent, in its entirety.”*

- 5.7 A number of FSPs in the State operate different interconnected networks and have been assigned specific Geographic Number ranges by ComReg, which can then be effectively allocated to RFVC subscribers. In some cases, retail subscribers make telephone calls to numbers that are connected to the same network as themselves. These are called ‘on-net’ calls. The completion of on-net calls involves the ‘self-supply’ of FVCT by the originating FSP.
- 5.8 In other cases, calls are made to numbers that are assigned to subscribers connected to other networks. These are called ‘off-net’ calls. In order to complete an off-net call on behalf of one of its subscribers, the originating FSP must deliver this call to the network associated with the called party’s Geographic Number (or, where there is no direct interconnection between the two Service Providers, via a Transit Service Provider for onward delivery of the call to the Geographic Number of the terminating FSP).
- 5.9 Most FSPs operate networks with a flat structure. However, larger FSPs can operate hierarchical networks. Calls can be terminated, for example, on Eircom’s network at any of three levels:

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<sup>350</sup> Numbers for use at a fixed location (**Geographic Numbers**) are broadly defined in the 2015 Numbering Conditions of Use (ComReg Document 15/136), as may be amended from time to time. The current definition of a Geographic Number in the Numbering Conditions of Use is a number from the National Numbering Scheme where part of its digit structure contains geographic significance used for routing calls to the physical location of the network termination point (**NTP**). The current definition of a **non-Geographic Number** in the Numbering Conditions of Use is a number from the National Numbering Scheme that is not a Geographic Number in that its geographic NTP is not identifiable from its digit structure.

<sup>351</sup> See ComReg Document 07/03, Market Analysis - Interconnection Markets Wholesale Call Termination Services, Consultation, 19 January 2007, p. 11 (**‘the 2007 FVCT Consultation’**). The 2007 FVCT Decision, which substantially relied on the 2007 FVCT Consultation, did not define the characteristics of the Relevant FVCT Markets.

- (a) primary exchange level (typically the local exchange to which the calling party's telephone line is connected);
  - (b) tandem/secondary exchange level (a regional exchange higher up in the network which would be connected to a number of primary exchanges);  
or
  - (c) double-tandem/tertiary exchange level (national telephone exchange at the highest level in the network which would be connected to a number of primary exchanges).
- 5.10 The 2007 FVCT Consultation market definition refers to the primary switching level (or equivalent) as the suitable point of hand-over and implicitly reflected the boundary between the FVCT and Transit markets.<sup>352</sup> The primary switching level is effectively the last point in the network at which calls can be handed over by another Service Provider. In the case of a PSTN network, the service involves the switching of the call at the primary exchange through to the line card at the end user side of the exchange (or concentrator unit).
- 5.11 Since the 2012 FVCT Consultation, the transit market has been deregulated by means of the 2015 FACO and Transit Decision. Accordingly, no FSP now faces regulatory obligations in respect of the provision of Transit services to other Service Providers. Although Service Providers may bundle the provision of both (deregulated) Transit services and (regulated) FVCT services, this Consultation focusses solely on FVCT.
- 5.12 Retail FSPs have varying degrees of network coverage and different network architectures. Some FSPs are interconnected to many other Service Providers and most Service Providers' (in particular, Eircom's) primary, tandem, and double-tandem exchanges, while others may have only a single interconnect at an Eircom double-tandem exchange. This variation in network coverage and level of reliance on specific Service Providers results in demand for different combinations of interconnection services. For this reason, Service Providers offers various bundles and permutations containing FVCT services that cater for the varying needs of access seekers, in particular, by bundling various levels of Transit with FVCT and, in some cases, FVCO.
- 5.13 The provision of pure FVCT services with no Transit component occurs at the primary exchange level. Beyond this exchange level, various degrees of Transit provision are offered by Service Providers, depending on the points on the network at which the Service Providers interconnect. In this regard, FVCT is consistent in that it is always provided at the primary exchange level (or equivalent), but the Transit element of interconnection may vary, as it can be offered along various stages of the network architecture.

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<sup>352</sup> See ComReg Document 07/03, Market Analysis - Interconnection Markets Wholesale Call Termination Services, Consultation, 19 January 2007, p. 11 (the '2007 FVCT Consultation').

- 5.14 The purchase of 'Pure' FVCT (i.e. with no Transit component) involves a Service Provider handing over call traffic for call termination at the local exchange (or equivalent) and therefore is priced lower than double-tandem FVCT (which has a Transit component).
- 5.15 A retail FSP's choice of interconnection service depends on the depth at which it is interconnected with other Service Providers. On the one hand, interconnecting with other Service Providers extensively (i.e. at the primary exchange level) can involve upfront capital expenditure. On the other hand, FSPs typically prefer to use their own infrastructure to carry calls as far as possible, in order to reduce the ongoing bills that they receive from other FSPs for FVCO, Transit and FVCT. A deeply interconnected Service Provider (interconnected at all levels of another Service Provider's network) would hand over calls for termination at the local exchange (or equivalent) connected to the called party's premises, where possible. An FSP with only a single interconnect will rely on a third-party Transit provider to route their call over a larger part of the network between their point-of-presence and the called party's primary switch (or equivalent).
- 5.16 While larger FSPs such as Eircom are likely to be able to offer both standalone FVCT and bundled FVCT and Transit products, smaller FSPs usually have a flat network structure and offer fewer interconnect points for FVCT purchasing purposes. FSPs typically charge a uniform price for call termination provided at any point of interconnection. FVCT provided by other FSPs may differ from a technological and geographic standpoint from the service provided by Eircom. This is because different networks deploy alternative technologies to perform the function of switching calls, and have different geographic footprints.
- 5.17 In particular, FSPs may have a flatter network hierarchy relative to larger FSPs such as Eircom, and may only have one or two switching points in their networks connecting their end users. These switching points are also the only points that another Service Provider can interconnect to in order to handover calls, either directly or via Transit to purchase FVCT. However, the FVCT service provided by other FSPs is functionally the same, in that the service enables the access seeker to deliver a call to a Geographic Number connected to the FSP's network.
- 5.18 On a forward-looking basis, the provision of wholesale and retail fixed voice telephony services is likely to make greater use of IP telephony solutions. Accordingly, the provision of FVCT is likely to involve the use of IP technologies which do not make use of traditional circuit switched technology, as described in greater detail in the following section.

## ComReg's proposed FVCT service description

- 5.19 For the purposes of this review, ComReg considers that a technologically neutral description is appropriate for FVCT. However, ComReg acknowledges that it is useful to provide guidance as to the scope of the service as it applies across relevant technologies.
- 5.20 In general, ComReg proposes that FVCT should include the switching and conveyance of all signals (including relevant control signals) required to terminate calls on an end user's NTP from the last point in the network where interconnection can be technically and economically availed of by another Service Provider. In practice, this point will differ depending on the structure and facilities available on different networks. Determining the relevant scope of the service involves taking account of the following considerations:
- (a) The boundary between non-replicable network inputs and those network inputs where actual replication and service provisioning over alternative networks is feasible over the market review timeframe;
  - (b) The precise scope of the service – from the perspectives of both the Service Provider seeking access to the network (for example, at what location does the Service Provider typically require access from a practical, technical and commercial perspective), and the Service Provider offering access; and
  - (c) Need to take network architecture of different FVCT suppliers into account and to ensure that the market definition is forward-looking, considering the potential demand for IP interconnection over the period of this market review.
- 5.21 In relation to the second consideration, ComReg has previously observed that a significant proportion of calls terminated on Eircom's PSTN network are handed over at the last potential point of interconnection (i.e. the primary exchange or equivalent).
- 5.22 For calls terminating on an IP network with a flatter network topology and fewer switches, the closest hand-over point to the end user may be a central IP interconnect or equivalent. In this case, ComReg considers it appropriate to define the scope of the FVCT service from the last available point on the network at which the call can be physically handed over by the originating Service Provider, or its third-party Transit provider, to the FVCT supplier for completion to the relevant called party. This implies that the appropriate handover point for FVCT reflects the final point on the network at which the originating Service Provider can interconnect with the terminating FSP, and beyond which only the terminating FSP can complete the call to the called party's Geographic Number.

- 5.23 ComReg therefore proposes to define one characteristic of FVCT such that it is defined as being from the nearest point (to the end user) or equivalent level on the terminating network at which calls can be handed over by a Service Provider for termination (i.e. on a traditional PSTN network this would be at the primary exchange, whereas on an IP network this may be at a different point) of the Geographic Number for which the call is destined.

### **What is a Fixed Voice Call Termination (FVCT) Supplier?**

- 5.24 To identify an FVCT candidate product, it is necessary to consider what constitutes an FVCT supplier.
- (a) *Firstly*, given current practice, an FVCT supplier is an FSP that must be capable of providing FVCT for the purpose of completing calls to subscribers at fixed locations. Calls to users at a fixed location are currently routed to Geographic Numbers with final routing/switching of the call effectively based on individual subscribers' Geographic Numbers. In doing so, the terminating FSP will need to ascertain the location of the fixed user through the digit structure of the Geographic Number (and associated routing codes) and route the call to the end user terminal. FSPs, in providing call termination, will therefore control access to called parties, either through assignment of Geographic Numbers to them by ComReg, or through the transfer from one FSP to another of the Rights of Use to such a number. ComReg recognises that innovation may serve, in the short to medium term, to weaken the connection between numbering and call termination, as call transmission may take place by means of new technologies. ComReg proposes that the assignment of Geographic Numbers nevertheless remains a key feature of FVCT, given current practice and technologies, but may, as market circumstances warrant, and, should the need arise, revisit the issue in any future market review.
- (b) *Secondly*, in order to provide call termination services an FVCT supplier must be interconnected with at least one other network. Absent this, all calls would effectively be on-net and no wholesale FVCT service would be provided. Given that FVCT forms part of a suite of wholesale interconnect services, it also follows that the supplier of FVCT should have the ability to set/control the associated FTRs for the relevant service. FSPs can be assigned to one of three categorisations, depending on the extent of their reliance on third-party network access, as set out below:
- (i) Independent FSPs provide voice call services to fixed subscribers using their own network infrastructure, and are generally not reliant on other operators. They generally have the ability to set the FTR for terminating calls to their subscribers.

- (ii) Partially-independent FSPs operate a physical telephone/data switch and potentially other infrastructure, but also rely (to varying degrees) on third-party network access. They may be defined as FVCT suppliers for the purpose of this market review, depending on their ability to set terms and conditions of access (including the FTR) for terminating calls to their subscribers.
  - (iii) FSPs with resale activities frequently do not use their own physical network for provision of voice services to end users at a fixed location (where own-network inputs are used they may be considered as partially independent FSPs described above). Instead, they purchase wholesale end-to-end voice call services from a third-party Service Provider. As those FSPs involved in resale activities do not generally control the level of the FTR in respect of such activities, they are generally not considered FVCT suppliers for the purposes of this review. FSPs providing FVCT services for calls incoming to Geographic Numbers offered by such resellers are considered relevant FVCT suppliers for the purposes of this market review.
- (c) *Thirdly*, a technologically neutral approach to defining a FVCT supplier is considered, which is elaborated further below.

5.25 ComReg's preliminary view is that the starting point for the FVCT product market definition is such that FVCT has the following characteristics:

- it involves the provision of call completion services in respect of end users who receive calls at a fixed location, which implies control of the subscriber's Geographic Number that has been assigned (or transferred) to an individual FSP;
- the supplier of FVCT should have the ability to set/control the associated charges (FTRs) for the relevant wholesale service;
- it involves interconnection between networks; and
- it is technologically neutral (elaborated further below).

5.26 There has been a notable increase (since the 2007 FVCT Decision and, to a lesser extent, the 2012 FVCT Consultation) in the number of FSPs which are currently considered to meet the above criteria for offering FVCT services (such FSPs may be classified as **Group A**<sup>353</sup> (see Annex 5) for the purposes of this Consultation). ComReg is of the preliminary view that the FVCT services provided by these Group A FSPs fall for consideration within the Relevant FVCT Market(s) as discussed further below. ComReg has also identified two further groups of FSPs which are prospectively active in the supply of FVCT.

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<sup>353</sup> Eircom, BT Communications Ireland, Vodafone Ireland, Verizon Ireland, Virgin Media Ireland, PlanNet 21 Communications, Airspeed Communications, Colt Technology Services, Imagine Communications Ireland, Magnet Networks, Telcom, In2com, Finarea SA, Viatel Ireland, Blue Face (trading as Blueface), Modeva Networks, Equant Network Services International, Dialoga Servicios Interactivos SA, Intellicom Ireland, Magrathea Telecommunications, and Voxbone SA.

- 5.27 A single **Group B** (see Annex 5) FSP, IP Telecom, has Geographic Number assignments and has negotiated interconnection with Eircom (and others), including their applicable FTRs. It furthermore has plans for commencing wholesale activity within the period of this market review. At the time of publication of this Consultation, IP Telecom has indicated that it plans to directly provide/charge for wholesale termination services for calls incoming to its assigned Geographic Numbers within the following six-month period. ComReg is of the preliminary view that the FSP in Group B, i.e. IP Telecom, thus falls for explicit consideration within the Relevant FVCT Market(s) in view of the credibility of its entry programme over the timeframe of this market review.<sup>354</sup>
- 5.28 The FSPs in **Group C** (see Annex 5) have Geographic Number assignments and have indicated an intention to start supplying and charging for FVCT for calls to those Geographic Numbers within the next three years but do not yet have formal plans for commencing prospective wholesale and/or retail activity. ComReg is of the preliminary view that as the FSPs in Group C do not yet have formalised plans (including timing) regarding FVCT provision to third-party Service Providers, their entry is not yet sufficiently credible for explicit consideration as providing a service which falls within the Relevant FVCT Market(s) at this time. However, were such plans to materialise, then ComReg considers that there is a strong case to be made that such Group C FSPs would fall within the definition of the Relevant FVCT Market over the period of this market review.
- 5.29 In a dynamic sector it is recognised that the FSPs that supply FVCT may vary further over the lifetime of the market review. ComReg proposes to monitor any such developments and to consider those changes on a case-by-case basis where they arise. In doing so, ComReg proposes to rely substantively on the current detailed assessment to identify whether any new-entrant FVCT suppliers meet the criteria, as proposed in this Consultation, for consideration as falling within the Relevant FVCT Market(s), and thus whether a competition assessment should accordingly be carried out.

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<sup>354</sup> See [case PL/2011/1260](#) where the Polish regulator, UKE, justified its decision not to carry out a market analysis or SMP designation for a new mobile entrant (AERO2) on the basis that AERO2 did not yet provide such services. However, in its serious doubts on the case, the European Commission criticised UKE's proposal indicating that this does not ensure regulatory predictability for market players. In [BEREC's opinion on case PL/2011/1260](#), BEREC also noted that *ex ante* regulation differed from *ex post* competition law in the need to take a prospective approach. BEREC noted further that NRAs could consider an operator as active in the market (for the purposes of *ex ante* market analysis) when there is clear evidence that it will enter the market in the time horizon of analysis. The request of numbering resources or the initiation of interconnection agreements can be taken as indicators of such evidence. In this case, and from a forward-looking perspective, the market definition and SMP designation could be possible even in the absence of activity at the retail level.

- 5.30 In each case the listed FSP is deemed to include any undertaking which it owns or controls and any undertaking which owns or controls it. The listed party also includes its successors, affiliates and assigns. This means that consolidation of companies by acquisition, creation of a subsidiary or any other changes of control should not affect the list. Where market entry or exit occurs, the list of FSPs will, however, require consideration.

### **Should FVCT be defined at the network or individual subscriber level?**

- 5.31 ComReg could, in principle, conclude that each individual Geographic Number on a FSP network constitutes a separate product market. However, given the homogeneous conditions of competition and the presence of a common pricing constraint<sup>355</sup> for call termination to all subscribers of a particular FSP, ComReg's preliminary view is that the starting point for the definition of the Relevant FVCT Markets should include the provision of FVCT to all subscribers of an individual FSP, where such incoming calls are to a Geographic Number and received at a fixed location.<sup>356</sup>
- 5.32 This is consistent with the 2007 FVCT Decision and the 2012 FVCT Consultation, which define Relevant FVCT Markets corresponding to each network operator. This was based on issues including that undertakings that supply wholesale FVCT to other undertakings wishing to terminate calls did not price discriminate between termination charges to different subscribers or locations on their network.

### **Is FVCT part of a wider fixed services market?**

- 5.33 ComReg considers it appropriate to take as its starting point the putative existence of separate markets for FVCT on individual FSP Geographic Number ranges, which are distinct from other wholesale or retail services provided by such FSPs. However, it may be argued that consumers purchase the ability to both make outgoing (originating) calls and receive incoming (terminating) calls as part of a single service/package, and that retail subscription decisions are therefore based on the cost of that overall package (i.e. that termination could form part of a cluster market incorporating wholesale and retail fixed voice services where FSPs compete on the overall price of the bundle). If this were to be the case, an FSP would be unable to raise the price of wholesale termination without reducing the price of other services in the bundle (e.g. outgoing retail (originating) calls).

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<sup>355</sup> FSPs supplying FVCT do not currently differentiate (nor are they likely to) their FTRs on the basis of the particular Geographic Number/subscriber called. The FTR is the same irrespective of the Geographic Number/subscriber called and to alter this position would likely involve substantial investment in billing systems and potential technical difficulties. The situation in respect of incoming calls to value-added service providers ('VASPs') is different and is considered further below.

<sup>356</sup> Note that this does not mean that the supply of FVCT for one subscriber/Geographic Number is a substitute for the supply of FVCT to another subscriber/Geographic Number as neither will constrain each other's FTRs.



- 5.34 However, due in large part to the CPP principle, there is no evidence of significant consumer awareness or sensitivity to the cost of incoming calls at the retail level, or to the level of the wholesale FTRs applied by a particular FSP. Consumers do not appear to take these factors into account when making their retail subscription decisions. The 2016 Market Research cited extensively in Section 4 indicates that the cost of making outgoing calls is one of the top three most important factors for both SME and residential respondents when selecting a FSP.<sup>357</sup> Very few respondents indicated the cost of incoming calls as a key driver for their choice of FSP. Furthermore, respondents indicated a generally low awareness of the cost of calling specific FSPs, due to retail pricing structures not generally differentiating retail prices according to the network called. In addition, there is little, if any, dissemination of information at retail level that would make end users materially aware of FVCT charges and how these impact retail charges.
- 5.35 As a result, ComReg is of the preliminary view that FVCO and FVCT at a fixed location do not form part of a broader cluster market.<sup>358</sup> ComReg therefore considers that the provision of FVCT services for terminating calls to Geographic Numbers should be analysed in this market review.

#### **What range of numbers should be included in the Relevant FVCT Market(s) for calls to end users at a fixed location?**

- 5.36 In considering the scope of the FVCT product market, ComReg has considered the range of Geographic Numbers associated with the provision of FVCT. Calls to Geographic Numbers typically involve calls to end users and are terminated by the FSP controlling the termination point with which the called Geographic Number is associated. Call termination to Geographic Numbers is currently priced on a Calling Party Network Pays ('**CPNP**') basis. According to the CPNP principle, the FTR is levied by the terminating FSP on the originating Service Provider (whose subscriber initiated the call to the Geographic Number in question). A CPNP wholesale charging arrangement typically gives rise to a CPP retail charging arrangement. The operation of the CPP principle, in the case of calls to Geographic Numbers, contributes to a disconnect between the choice of making/paying for a retail call (including the associated FTR) which is determined by the calling party, and the choice of the FVCT supplier which is determined by the called party. This removes an important source of pricing constraint on the FVCT supplier in question.

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<sup>357</sup> As set out in Figure 41 and Figure 42 above.

<sup>358</sup> In its 2015 FACO and Transit Decision, ComReg defined a wholesale Fixed Access and Call Origination ('**FACO**') product market consisting of separate Fixed Access ('**FA**') and Fixed Voice Call Origination ('**FVCO**') components.

- 5.37 For example, when an Irish mobile subscriber phones an Irish fixed-line subscriber, the called party's FSP levies an FTR on the calling party's MSP. The calling party does not see the FTR, as it is a wholesale rather than a retail charge. For this reason, the calling party does not separately take into account the magnitude of the FTR when deciding whether to initiate the call. Accordingly, the pricing behaviour of Service Providers levying termination rates is not likely to be disciplined by the behaviour of calling parties, who do not bear the direct and immediate cost of these rates. Moreover, Service Providers do not have clear incentives to levy comparatively low termination rates for the same reason.
- 5.38 Since the 2014 Recommendation defines the Relevant FVCT Market as "*wholesale call termination on individual public telephone networks provided at a fixed location*", ComReg takes the number range most frequently involved in supplying call termination services to end users at a fixed location (i.e. Geographic Numbers) as its candidate product for the definition of the Relevant FVCT Market(s), and assesses whether calls to other number ranges should form part of this relevant wholesale market.

**Is FVCT to VASP numbers part of the Relevant FVCT Market(s)?**

- 5.39 In its 2007 FVCT Decision and the 2012 FVCT Consultation, ComReg proposed that the wholesale termination of calls to value-added service providers ('VASPs')<sup>359</sup> was not in the same Relevant FVCT Market(s) as termination of calls to end users. This subsection considers whether this distinction is still relevant for the purposes of the present market review.

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<sup>359</sup> For the purposes of this Consultation, the definition of 'VASPs' in the above context is distinct to the definition of 'Service Provider' referred to in footnote 3 above. The term 'VASPs' is intended to refer to the fact that the ultimate recipient of the incoming voice call is not an end user but is rather a commercial or public entity such as a business, financial institution, helpline or government agency which uses the numbers to provide information/content/interactive services to enable customers/citizens to receive information and/or to make payments for services. By contrast the term 'Service Provider' is intended as a more generic term referring to all FSPs and MSPs which may be actively providing voice calls services to end users and/or commercial entities.

- 5.40 Calls to non-Geographic Numbers<sup>360</sup> typically involve calls to VASPs, rather than end users (although some involve calls to end users (i.e. 076 numbers) which will be discussed further below), and are terminated by the FSP routing the call to the termination point associated with the relevant non-Geographic Number. Across the EU, in view of the different substitution possibilities, calls to VASPs are generally excluded from the Relevant FVCT Market(s). Call termination to certain non-Geographic Numbers (frequently used for emergency or public interest services) has, however, been included in the Relevant FVCT Market definition in some cases where they are subject to similar supply and demand conditions as call termination to standard Geographic Numbers.<sup>361</sup>
- 5.41 A range of non-Geographic Numbers are used for voice/data traffic, including Freephone,<sup>362</sup> Shared Cost,<sup>363</sup> Universal Access,<sup>364</sup> Premium Rate,<sup>365</sup> Internet Access,<sup>366</sup> Nomadic<sup>367</sup> and Emergency<sup>368</sup> numbers. Depending on the type of call, different charging mechanisms apply. Retail charging mechanisms for various (non-exhaustive) categories of non-Geographic Numbers are further described below as follows:<sup>369</sup>

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<sup>360</sup> As defined in footnote 350 above.

<sup>361</sup> Examples can be found in cases LT/2015/1784, EE/2014/1664, DE/2012/1359, and RO/2008/0774. For example, the Romanian regulator included call termination to national short numbers for services of general public interest services such as citizen safety services (e.g., police), medical assistance services, public utilities' faults complaint services, citizen assistance (consumer protection) services, assistance for subscribers of electronic communications services (customer relations, service guides, etc.).

<sup>362</sup> As defined in the Numbering Conditions of Use, a non-Geographic Number where the charge for the call is paid by the called party and not the caller.

<sup>363</sup> As defined in the Numbering Conditions of Use, a non-Geographic Number which is used for shared cost services which allow the caller to be charged for only part of the cost of the call, with the called party being charged for the remainder.

<sup>364</sup> As defined in the Numbering Conditions of Use, a non-Geographic Number that allows the called party to receive calls at a single or several different locations.

<sup>365</sup> As defined in the Numbering Conditions of Use, a non-Geographic Number that is used to provide Premium Rate Services.

<sup>366</sup> As defined in the Numbering Conditions of Use, a non-Geographic Number that is used by internet service providers to route traffic from the PSTN, ISDN or mobile network to the point-of-presence (PoP) of the internet service provider.

<sup>367</sup> As defined in the Numbering Conditions of Use, a non-Geographic Number that is used for services where the termination point is not always associated with a particular physical address but where an E.164 Number is required for call termination or to reach a gateway between the PSTN/ISDN/mobile network and other networks.

<sup>368</sup> As described in the Numbering Conditions of Use, a call made to the Emergency Services using the 112 or 999 emergency services numbers.

<sup>369</sup> The description of the retail charging arrangements for non-Geographic Numbers is in line with that set out in the Numbering Conditions of Use. Calls to short code numbers (such as to 19XX customer support short codes and to telecommunications directory enquiry access codes (118XX)) are also considered calls to a non-Geographic Number. Call termination to emergency numbers is, however, analysed separately at paragraph 5.64 below.

- Freephone (1800) numbers allow the called party to be reached at no charge to the calling party. The costs of a call to a freephone number are borne entirely by the called party - the Receiving Party Pays ('RPP'), rather than the CPP, principle applies;
- Shared Cost (1850 and 1890) numbers allow the calling party to be charged for only part of the cost of the call, with the called party being charged for the remainder (i.e. they are subject to both the CPP and the RPP principles);
- Universal Access (e.g. 0818) numbers allow calls to be made to a central (typically corporate) number for re-routing to the appropriate response point, and are subject to the CPP principle. The costs of calls to universal access numbers shall not exceed the originating undertaking's standard rate for a call of the same duration to a Geographic Number. Where the rate for calling Geographic Numbers is distance dependent, the rate shall not exceed the originating undertaking's standard rate for a national call.
- Premium Rate (15XX) numbers - the calling party pays a premium charged by his or her Service Provider for access to premium rate (information or other added value content) services (i.e. CPP principle). A shared revenue model then applies whereby this premium is shared by commercial agreement between the various providers in the value chain;
- Internet Access (189X, other than 1890) numbers - the costs of calls to such numbers can be based on different models: separate charges for call (charged at or below the standard local call rate) and service subscription (1891); a (Pay As You Go) call charge only and no service subscription charge (1892); or partial or full flat rate whereby a fixed charge is applied to cover both the call and the internet service (1893). Internet access numbers were used for the purpose of providing dial-up internet services and are therefore of declining significance; and
- Nomadic (076) numbers are assigned to VoIP providers. The characteristics of calls to 076 numbers (e.g. the application of the CPP principle) are broadly in line with those of Geographic Numbers. According to the *Numbering Conditions of Use*,<sup>370</sup> the cost of calling such nomadic numbers from within the State shall not exceed the originating undertaking's standard rate for a call of the same duration to a Geographic Number.

5.42 As discussed above, the RPP principle applies to some types of calls to VASPs. Under the RPP principle the called party's FSP bills the called party for all or part of the cost of terminating the call. Hence, the RPP approach internalises the call externality as the called party would be more likely to take FTRs into consideration when choosing between different FSP services. For example, the RPP principle applies to Freephone (1800) calls where the VASP buys the call from the terminating operator on a wholesale basis.

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<sup>370</sup> "Numbering Conditions of Use and Application Process", ComReg Document 15/136, as may be amended from time to time. Available online at <https://www.comreg.ie/publication-download/numbering-conditions-of-use-and-applications-process>

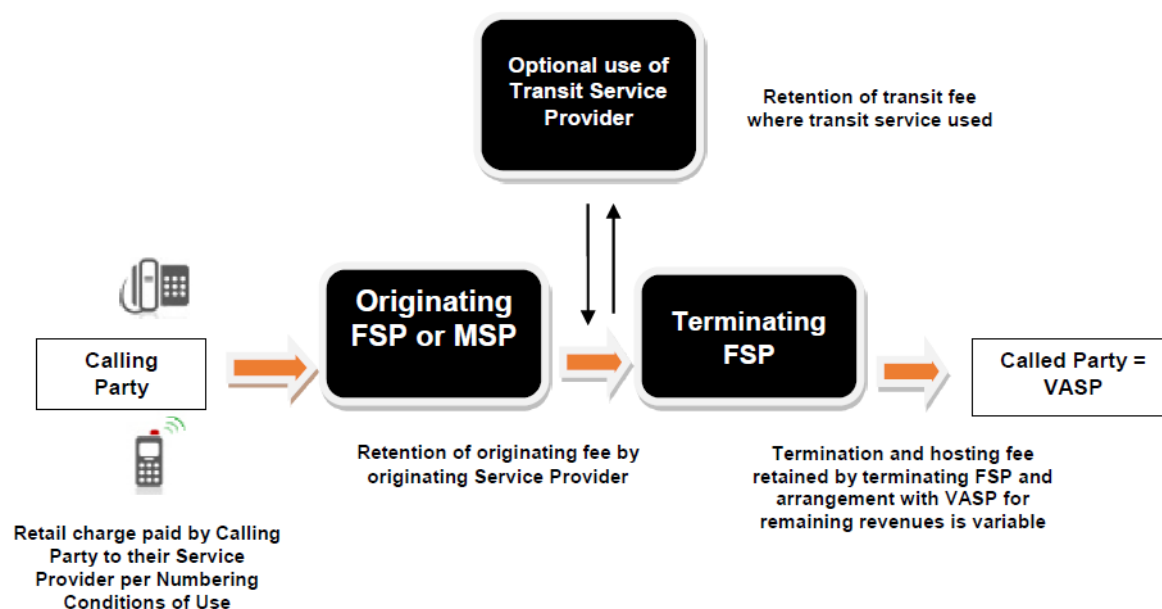
- 5.43 In contrast, in the case of calls to Geographic Numbers, the CPP contributes to a disconnect between the choice of making/paying for a call (including the associated FTR), which is determined by the calling party and the choice of the FVCT supplier, which is determined by the called party.
- 5.44 However, in the case of calls to certain types of non-Geographic Numbers, the operation of the CPP or RPP principle at retail level can have a less influential role in terms of relevant wholesale pricing constraints on the FVCT supplier. For example, even in instances where the CPP principle applies, VASPs using some of the above non-Geographic Number categories as a means for customers/clients to contact them may have an incentive to switch to an alternative terminating FSP for hosting the service platform if the termination fee were raised. VASPs attract revenues from customers through telephone calls to their services and therefore have an incentive to take into account the cost of FVCT when selecting the platform operator, since the cost of termination affects the revenue accruing to the VASP.<sup>371</sup> This is distinct from the situation with wholesale termination of calls to Geographic Numbers where the end users do not face the same competitive constraints and revenue incentives as VASPs, and are thus less sensitive to FTRs set by their own FSP.
- 5.45 Premium Rate Service (PRS) numbers have specific revenue-sharing features which make them attractive to certain categories of VASPs. A distinguishing feature of calls to PRS numbers (that is, non-Geographic Numbers used for the purposes of providing a hosted value-added service) is that part of the revenue stream accrues to the hosting (i.e. terminating) operator from the VASP (i.e. the Premium Rate Service operator). In this case, the business model for the hosting FSP is that it receives payment from the VASP for hosting the service, or shares retail revenues with it in some way, or a combination of both. This is unlike both normal geographic calls and other forms of non-geographic calls where the only revenue received by the terminating FSP is that from the termination charge itself.
- 5.46 Examples of the flow of revenues between parties involved in the origination, transit and termination of calls to non-Geographic Numbers are illustrated in Figure 52 and Figure 53 below. For illustrative purposes, Figure 52 depicts a situation where the calling party pays for the non-geographic call and Figure 53 depicts a situation where the called party pays for the non-geographic call.

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<sup>371</sup> This revenue accrues **directly** in the case of 15XX Premium Rate Service numbers, which are a specific instance of VASPs which allow for revenue sharing between the FSP and the VASP in question, i.e. the premium retail tariff revenue itself may be divided between the FSP and the VASP. In the case of other VASPs, the revenue accrues **indirectly**, as the telephone contact affords the VASP a sales opportunity for the products or services which it sells, or allows consumers to pay the VASP for services rendered (for example, paying a motorway toll over the phone).

5.47 Figure 52 shows how, in the case of a CPP arrangement, a proportion of the retail charge paid by the calling party is retained by each party in the value chain with the originating (and where appropriate Transit) Service Provider taking an agreed share of the remaining revenue. The form of revenue arrangement between the terminating FSP and the VASP varies from case to case (e.g. in the case of 15XX Premium Rate Service numbers, the terminating FSP may pay the VASP as part of a revenue share agreement, whilst the VASP may pay the terminating FSP for services such as hosting).<sup>372</sup> In the case of PRS calls, revenue flows between the terminating FSP and the VASP change the incentives to the hosting (terminating) FSP, in that revenues for both the terminating FSP and the VASP increase as the number of calls made increases.

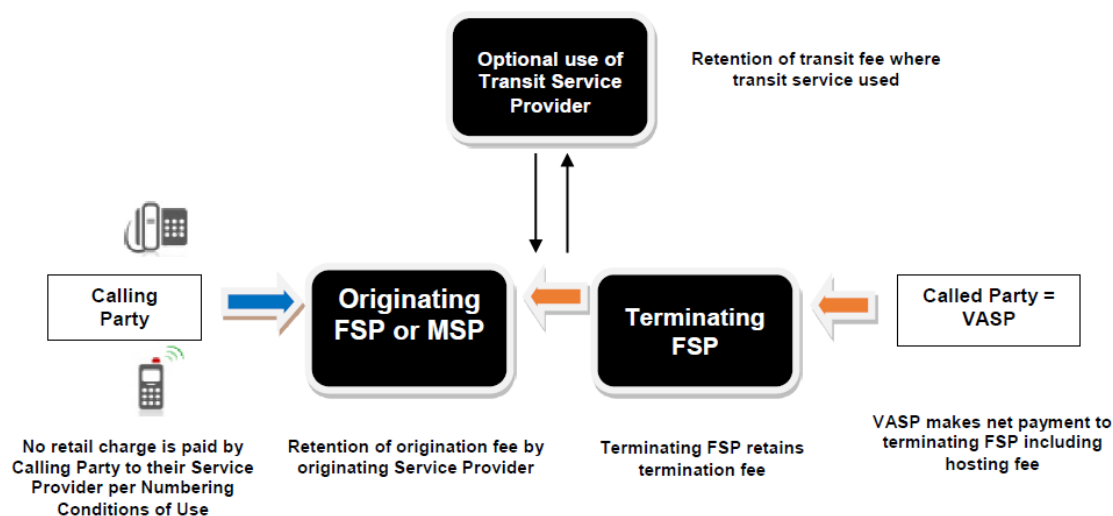
**Figure 52: Revenue arrangements for calls to non-Geographic Numbers where Calling Party Pays**



5.48 Figure 53 shows how, in the case of a RPP arrangement (i.e. a Freephone 1800 number), a proportion of the VASP payment is retained by each party in the value chain with the terminating FSP typically passing revenue onwards to a Transit or originating Service Provider after retaining a share.

<sup>372</sup> This scenario may describe, for instance, the charging mechanisms set out in the case of Shared Cost or Premium Rate Service Numbers, as set out in Section 4 of the Numbering Conditions of Use.

**Figure 53: Revenue arrangements for calls to non-Geographic Numbers where Receiving Party Pays**



- 5.49 The revenue flows between the terminating FSP and the VASP change the incentives to the hosting (terminating) FSP, in that (direct) revenues for the terminating FSP and (indirect) revenues for the VASP such as, e.g., bill payments over the phone increase as the number of calls made increases. In an RPP scenario, a VASP's costs may increase if its FSP increases its FTRs. In contrast, in a CPP scenario, the called party's costs do not increase if its FSP increases its FTRs. Where the called party is sensitive to increases in FTRs, this may increase the incentive for the called party to switch to a FSP which charges lower FTRs, to switch to other communications methods which are free to the caller (e.g. email or webchat), or to switch to a CPP number.
- 5.50 Furthermore, originating Service Providers have a greater degree of control in this context since the practice in the State is that the originating Service Provider collects the retail call revenue and remits the agreed revenue (less any retained origination fee, as set out in Figure 52 and Figure 53 above) to the terminating FSP. In such scenarios, market power may lie with the originating Service Provider, which charges the terminating Service Provider an origination fee. It may not make sense for the hosting (terminating) FSP to refuse or compromise completion of the call since in doing so it would deny itself and its VASP their share of retail call revenues. It is therefore less likely that a hosting (terminating) FSP would be able to act entirely independently of competitive constraints. For these reasons, ComReg is of the preliminary view that calls to non-Geographic Numbers for the purposes of availing of value-added services (VASP numbers) are not in the Relevant FVCT Market, and may well constitute a separate market, although ComReg does not conclude on this.

**Is FVCT to Universal Access (0818) numbers part of the Relevant FVCT Market(s)?**

- 5.51 As set out above, Universal Access (e.g. 0818) numbers allow calls to be made to a central (typically corporate) number for re-routing to the appropriate response point, and are subject to the CPP principle. 0818 numbers are therefore typically assigned to corporate bodies, and not to individuals. As with 076 calls, the cost of calls to 0818 numbers shall not exceed the originating undertaking's standard rate for a call of the same duration to a Geographic Number. Where the rate for calling Geographic Numbers is distance dependent, the rate shall not exceed the originating undertaking's standard rate applicable for a national call.
- 5.52 This creates a similarity between 0818 and Geographic Numbers. However, similarities in retail usage and prices for geographic and 0818 numbers respectively are not the solely decisive criteria. Rather, ComReg's preliminary view is that, unlike Geographic and 076 numbers,<sup>373</sup> Geographic and 0818 numbers have different competitive characteristics at wholesale level. These characteristics include differences in end user awareness and incentives in respect of the level of the FTRs applied, as well as differences in the revenue opportunities which accrue to terminating FSPs in respect of calls incoming to such numbers.
- 5.53 Universal Access Numbers (using the 0818 number range) are mainly used for the purposes of providing business and information services to consumers – for example, telephone banking. In most cases Universal Access (0818) numbers are used for calls to VASPs. VASPs are more likely to be sensitive to the termination charges applied by their terminating FSP, as a VASP which is using its phone numbers as a sales or payment generation opportunity from its calling parties (e.g. bank customers wishing to pay a bill, or consumers wishing to buy a ticket to a concert) and thus looking for the platform operator which charges the lowest FTRs.
- 5.54 Accordingly, compared to typical Geographic Number end users, end users of 0818 numbers are likely to be incentivised to have greater awareness of the FTRs charged by the FSP, as 0818 numbers provide such end users with indirect revenue-generating opportunities.

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<sup>373</sup> As discussed in greater details at paragraphs 5.59 to 5.63 below.



- 5.55 Taking a recent example of an approach by another EU NRA, in its December 2016 Narrowband market review consultation,<sup>374</sup> the UK Office of Communications, ('**OFCOM**'), indicated that it considered that the equivalent numbering range in the UK (03 numbers) should be excluded from the Relevant Wholesale Call Termination Market, on the grounds that wholesale call termination to 03 numbers and to Geographic Numbers does not exhibit sufficiently homogeneous competitive conditions (unlike Geographic Numbers, FSPs terminating 03 calls offer hosting services such as call management, conditional call routing and recorded announcements in addition to FVCT, which are valued by VASPs and are likely to influence their purchasing decisions).
- 5.56 On these bases, it is ComReg's preliminary view that FVCT to 0818 numbers is subject to similar competitive characteristics as FVCT to VASPs more generally, and should therefore likewise be excluded from the Relevant FVCT Markets(s).
- 5.57 ComReg has recently published its *Review of Non-Geographic Numbers*,<sup>375</sup> which sets out its proposals in respect of the five categories of non-geographic numbers identified therein (076, 0818, 1800, 1850 and 1890). In this Review, ComReg proposes to cease issuing numbers in the 076, 1850 and 1890 number ranges, and to streamline non-geographic numbers to the Freephone 1800 range, and the 0818 range, which it proposes to designate as being 'geo-linked', thus requiring, as is currently the case, that retail charges for calls made to 0818 numbers be no greater than the charges for equivalent calls to geographic numbers.
- 5.58 At wholesale level, ComReg has indicated that it may be necessary to carry out an assessment of wholesale charges for calls to non-geographic numbers.<sup>376</sup>

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<sup>374</sup> Ofcom, "Narrowband Market Review Consultation on the proposed markets, market power determinations and remedies for wholesale call termination, wholesale call origination and wholesale narrowband access markets", at paragraphs 11.48 to 11.50. Available online at [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0016/95011/Narrowband-Market-Review.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0016/95011/Narrowband-Market-Review.pdf)

<sup>375</sup> Available online at <https://www.comreg.ie/publication/review-non-geographic-numbers/>

<sup>376</sup> As set out at paragraph 16 of ComReg document 17/53r: *Information Notice Wholesale Charges for Non Geographic Numbers*. Available online at <https://www.comreg.ie/publication/information-notice-wholesale-charges-non-geographic-numbers/>

**Is FVCT to Nomadic (076) numbers part of the Relevant FVCT Market(s)?**

- 5.59 A distinct category of non-Geographic Numbers shares, in terms of its underlying wholesale arrangements, similar competitive characteristics to the provision of FVCT to Geographic Numbers. Nomadic numbers and services<sup>377</sup> (using the 076 number range) are mainly used for the purposes of VoIP services but are also available for use by other suitable IP-based services and services with nomadic characteristics.<sup>378</sup> Unlike geographic ranges, these numbers may be assigned to individuals as well as to termination points and, unlike most non-Geographic Numbers, number translation may not necessarily be required<sup>379</sup> with the 076 range. However, market research commissioned by ComReg indicates that consumers have limited understanding of the role of certain non-Geographic Numbers including 076 numbers. ComReg therefore proposes to cease issuing numbers in the 1850, 1890 and 076 ranges, and to retain numbers in the 0818 and 1800 ranges.<sup>380</sup>
- 5.60 Furthermore, the *Numbering Conditions of Use* state that the retail tariffs of calls to 076 numbers should not exceed the retail tariff for a call of the same duration to Irish Geographic Numbers, thus further increasing the similarity between 076 and Geographic Numbers. However, similarities in retail usage and prices for geographic and 076 numbers respectively are not the solely decisive criteria. Rather, ComReg's preliminary view that both call types share similar competitive characteristics at wholesale level is based on similarities in end user awareness/incentives in respect of the level of the FTRs applied, as well as similarities in the revenue opportunities which accrue to terminating FSPs in respect of calls incoming to such numbers.

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<sup>377</sup> Nomadic numbers are designated for use where the termination point is not always associated with a particular physical address but where an E.164 Number is required for call termination or to reach a gateway between the PSTN / ISDN/ mobile network and other networks (e.g. for VoIP services).

<sup>378</sup> The other number range that is most associated with VoIP is the geographic range which is used for the provision of wholesale termination services of calls to end users at a fixed location.

<sup>379</sup> Number translation is required when non-Geographic Numbers have no physical destination of their own but can reach real destinations and/or services once converted into geographic/mobile numbers.

<sup>380</sup> ComReg's proposals in this regard are set out in Document 17/70, 'Review of Non-Geographic Numbers', which is available online at <https://www.comreg.ie/publication/review-non-geographic-numbers/>

- 5.61 In most cases nomadic (076) numbers are used for calls to end users at a fixed location rather than for calls to VASPs. Therefore, the revenue flows and resulting competitive conditions in the wholesale termination of calls to 076 numbers are more likely to resemble the revenue flows and competitive conditions in the supply of FVCT for calls to Geographic Numbers. It is unlikely that an end user of 076 numbers would be as sensitive to the termination charges applied as a VASP which is using its phone numbers as a sales or payment generation opportunity from its calling parties (i.e. customers) and thus looking for the platform operator which charges the lowest FTRs. As for geographic calls, the terminating leg of calls to 076 numbers generally presents fewer revenue opportunities for the terminating FSP than in the case of calls to numbers used by VASPs, for which hosting revenues may also accrue. This removes a further source of possible pricing constraint on the FSP terminating calls to 076 numbers.
- 5.62 ComReg's analysis has not yielded material evidence that there are any demand or supply-side substitutes for call termination to 076 numbers, or that technical alternatives exist by which a call to a 076 number could be successfully terminated without the co-operation of the terminating FSP. This is reinforced by the fact that the CPP principle applies for calls to 076 numbers and the called parties (who choose the terminating FSP) thus have fewer incentives to react to the cost of FVCT. While the *Numbering Conditions of Use* limit the retail cost of a call to 076 numbers, they cannot extend to the wholesale FTRs charged by the terminating FSP, as there is no legal basis to do so.
- 5.63 On this basis, it is ComReg's preliminary view that FVCT to 076 numbers is subject to similar competitive characteristics as FVCT to Geographic Numbers and should be included in the same Relevant FVCT Market(s) as call termination to end users with Geographic Numbers.

**Is FVCT to emergency (112 & 999) numbers part of Relevant FVCT Market(s)?**

- 5.64 Some National Regulatory Authorities ('NRAs') include FVCT to certain categories of non-Geographic Numbers (such as for emergency services) in their Relevant FVCT Market definition, because it is similarly characterised by Significant Market Power and, therefore, a lack of competition. ComReg accordingly considers whether the provision of FVCT to emergency 112 and 999 numbers should form part of the Relevant FVCT Market(s) in Ireland.

- 5.65 ComReg is of the preliminary view that FVCT to emergency numbers shares similar competitive conditions to FVCT to Geographic Numbers, since there are currently no effective demand-side or supply-side substitutes for FVCT to emergency numbers, for the reasons set out at Section 4 above in respect of FVCT. This suggests that FVCT to emergency numbers should be included in the same relevant market as FVCT to Geographic Numbers. However, before reaching a conclusion on this matter, ComReg assesses whether FVCT to emergency numbers has any distinctive competitive conditions which might cause it to be excluded from the relevant market.
- 5.66 The Emergency Call Answering Service ('**ECAS**') for calls to 112 and 999 numbers is provided by BT Communications (Ireland) Limited, which was appointed by the then-Department of Communications, Marine and Natural Resources as the provider of the ECAS in 2009.<sup>381</sup> All emergency 112 and 999 calls are free of charge to the caller, as required by EU legislation. In order to recover the costs of providing the ECAS, BT charges a Call Handling Fee ('**CHF**') to Service Providers for calls which originate on their networks, as set out in Section 58C of the Communications Regulation Act 2002 (as amended). For the period February 2017 to February 2018, the maximum CHF that the ECAS may charge to Service Providers who forward 112/999 calls to it is €3.95.
- 5.67 A 2014 Report drafted by TERA Consultants on behalf of ComReg noted that the costs incurred by BT in the provision of the ECAS included termination charges.<sup>382</sup> An earlier edition of this Report, dating from 2011, indicated that BT paid FTRs associated with terminating calls to the various emergency services:
- “About interconnect costs, BT pays for the fixed termination charges to emergency services (An Garda Síochána, Ambulance etc.) for connected calls”.*<sup>383</sup>
- 5.68 When a member of the public dials 112 or 999, that call is routed to one of three ECAS Public Safety Answering Points ('**PSAPs**') operated by BT Ireland in Navan, Ballyshannon and Dublin, with BT routing the call to the relevant emergency service. BT Ireland pays FTRs to each emergency service's terminating FSP for connected calls from BT's PSAPs. The cost to BT Ireland of paying these FTRs is included in the calculation of the CHF.

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<sup>381</sup> This tender expired on 14 July 2017. Pending the expected award of a new tender to the successful bidder, BT Ireland continues to operate the ECAS, as of October 2017.

<sup>382</sup> TERA Consultants, 2014. “Recommendations for a reasonable Call Handling Fee (CHF) associated with the Emergency Call Answering Services (ECAS) - Final report”, at p.46. Available online at <https://www.comreg.ie/publication-download/recommendations-for-a-reasonable-call-handling-fee-associated-with-the-emergency-call-answering-services>

<sup>383</sup> TERA Consultants, 2011. “Recommendations for a reasonable Call Handling Fee (CHF) associated with the Emergency Call Answering Services (ECAS) - Final report”, at p.59. Available online at [https://www.comreg.ie/media/dlm\\_uploads/2015/12/ComReg1181a.pdf](https://www.comreg.ie/media/dlm_uploads/2015/12/ComReg1181a.pdf)

- 5.69 Under Section 58D(1) of the Communications Regulation Act 2002 (as amended), each year, ComReg is required to review the maximum CHF that may be charged. ComReg may confirm the existing maximum CHF or, following consultation with the ECAS provider, raise or lower the existing maximum CHF. Accordingly, the ECAS CHF framework is already subject to a pre-existing regulatory framework – including price regulation - pursuant to the Communications Regulation Act 2002 (as amended), and ComReg is statutorily obliged to implement and oversee the CHF regulatory framework. This suggests, *a priori*, that the provision of the ECAS and the associated CHF charging mechanism requires regulatory intervention, due to the absence of normal competitive pressures.
- 5.70 One such ‘normal competitive pressure’ is the possibility of demand-side substitution, whereby a Service Provider constrains its behaviour on a market, (for instance, the prices it charges) lest its customers deem these prices to be excessive, and switch to an alternative Service Provider. Emergency services (such as An Garda Síochána, or the HSE National Ambulance Service) do not appear to have the incentive (or indeed the ability) to constrain the level of the prices (i.e. FTRs) charged by their terminating FSPs to BT Ireland. Emergency services do not bear the costs of the FTRs levied by their own FSPs, and are therefore likely to be generally indifferent to the level of FTRs charged. For that reason, emergency services do not have sufficient incentives to switch terminating FSP in the case of a SSNIP in FTRs by their own FSP.
- 5.71 FVCT for emergency numbers does not appear to exhibit different competitive conditions to FVCT for Geographic Numbers (including 076 numbers). In particular, the emergency services whose FSPs charge FTRs to the ECAS do not appear to have any incentive to act differently than a domestic subscriber to a standard Geographic Number. It is thus ComReg’s preliminary view that FVCT for calls to emergency numbers is in the same Relevant FVCT Market(s) as call termination services to end users using Geographic and 076 numbers. If it is the case that calls to such emergency service providers are terminated on non-Geographic Number ranges in the future, it is also proposed on a forward-looking basis that such non-geographic ranges would likely be included in the Relevant FVCT Market.

**Preliminary Conclusion on Number Ranges included in Relevant FVCT Market(s)**

- 5.72 On the basis of this analysis, ComReg takes the preliminary view that the Relevant FVCT Market includes the provision of FVCT services to all Geographic Numbers, to 076 numbers, and to emergency 112/999 numbers. Currently there are 35 authorised undertakings with assigned Geographic Number ranges and 47 undertakings with assigned nomadic 076 numbers in the State. 22 undertakings have been assigned both geographic and nomadic numbers

- 5.73 For the purposes of this Consultation the term ‘Fixed Numbers’ is hereinafter used to collectively refer to all geographic, nomadic 076, and 112/999 numbers, as have been, or may be, assigned to FSPs from time to time.

**Is the Relevant FVCT Market technology neutral?**

- 5.74 Across the EU, the FVCT market has frequently been defined independently of the underlying technology over which the service is delivered. Thus, termination of calls at fixed locations using VoIP has been included in the Relevant FVCT Market by a number of Member States.<sup>384</sup>
- 5.75 ComReg adopts a technology neutral approach to defining the Relevant FVCT Market<sup>385</sup> and will include in the relevant market all FVCT services which share similar economic and functional characteristics regardless of the underlying technology on which such call termination is based.

**Is FVCT delivered over Voice over Internet Protocol (‘VoIP’) technology in the same Relevant FVCT Market as FVCT using traditional narrowband<sup>386</sup> voice technology?**

- 5.76 A key development since the last market review has been the commencement of some growth in VoIP telephony. For the purposes of this Consultation, ComReg considers VoIP services according to three broad categories: Managed VoIP, Partially-Managed VoIP and Unmanaged VoIP services.

**(i) Managed and Partially-Managed VoIP Services**

- 5.77 Managed VoIP means that the Service Provider provides RFTS and an IP access path to its customer, either directly on its own network, or indirectly by renting the IP access path from a third-party (e.g. using Wholesale Local Access or Wholesale Central Access inputs).
- 5.78 A Managed VoIP Service Provider will typically have its own switching platform, Interconnection Path(s) and numbering allocations. It can also manage its network so that it prioritises data traffic or can manage the quality of VoIP traffic on the IP access path in order to ensure that minimum quality of service requirements for the provision of RFVC are met.

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<sup>384</sup> See, for example, cases DE/2008/0843, LV/2009/0889 and IT/2008/0777.

<sup>385</sup> In accordance with Regulation 16(1)(a) of the Framework Regulations.

<sup>386</sup> Narrowband voice technology includes voice calls carried by means of both Public Switched Telephone Network (‘PSTN’) and Integrated Services Digital Network (‘ISDN’) technology. This approach is consistent with that adopted by ComReg in classifying fixed voice access paths in its QKDR.

- 5.79 Partially-Managed VoIP means that the RFVC Service Provider does not provide the access path to its customers. Instead, the customer uses its own broadband service (procured from another Service Provider) to access the VoIP-based RFVC service. The partially-managed VoIP Service Provider operates a switch and Interconnection Path(s) and, therefore, its own switching platform and numbering allocations.
- 5.80 Having regard to the increasing uptake of VoIP services and the fact that a number of (Managed and Partially-Managed) VoIP-based FSPs have, to date, been assigned Geographic Numbers, ComReg considers whether FVCT to Geographic Numbers using VoIP technology forms part of the Relevant FVCT Market(s). In this subsection ComReg assesses whether the competitive characteristics of the wholesale supply of FVCT to Geographic Numbers over both Managed and Partially-Managed VoIP, and Narrowband technologies respectively justify their inclusion in the same Relevant FVCT market(s).
- 5.81 On the **demand side**, given the nature of FVCT, an originating Service Provider does not currently have any viable and effective alternatives for terminating a voice call to a subscriber of an individual FSP with Geographic Numbers, irrespective of the underlying technology used. It is not possible for an originating (or transiting) Service Provider to terminate a call to a specific Geographic Number (where a VoIP service is used) by purchasing termination on another FSP's network. The CPP principle applies in respect of FVCT to Geographic Numbers irrespective of the underlying technology (i.e. VoIP, PSTN, ISDN or other technology). The same low awareness / sensitivity of the called party would thus apply in respect of FVCT services offered for calls to such Geographic Numbers independently of the underlying technology used.
- 5.82 Looking ahead to the medium term, based on the evidence available to ComReg there do not appear to be any technological or other changes that would lead to the emergence of effective alternatives which would allow Service Providers to bypass FVCT offered by an FSP to which Geographic Numbers have been assigned, even where the underlying technology is based on Managed/Partially-Managed VoIP technology. This is discussed in detail below.

- 5.83 On the **supply side**, potential supply-side substitutes for FVCT to a Geographic Number would require a parallel access path to the subscriber. This requirement applies irrespective of whether that Geographic Number is assigned to an FSP that operates based on narrowband (PSTN or ISDN) or VoIP technology. The subscriber would also have to be willing and able to receive calls on this parallel access path. In practice this would likely require the customer to hold two active subscriptions. Given the limited awareness and sensitivity of end users to the costs faced by others calling them, it is unlikely that a called party would have sufficient incentive to seek the parallel access path from an alternative FSP in the case of a SSNIP of FTRs. It should, moreover, be noted that the parallel access path could be subject to the same competitive bottleneck as the 'original' access path.
- 5.84 This low sensitivity to called party costs was confirmed by the 2016 Market Research, as set out in detail in Section 4.<sup>387</sup> Furthermore, a very low number of residential and business respondents who had switched providers in the past three years cited costs faced by others when calling them as a top three reason for choosing their FSP, and no respondent cited it as their main reason for switching FSP.
- 5.85 On the basis of the above analysis, ComReg is of the preliminary view that the competitive conditions underlying the provision of FVCT using Managed or Partially-Managed VoIP technologies are sufficiently similar to those underlying the provision of FVCT services using traditional narrowband voice technology. It is therefore proposed that FVCT provided over Managed and Partially-Managed VoIP technology be included in the Relevant FVCT Markets.

**(ii) Unmanaged VoIP Services**

- 5.86 Unmanaged VoIP means that the Service Provider itself does not provide the access paths to its customers and does not have a switching platform and interconnection path(s). Its customers must access the Unmanaged VoIP service via the public internet or over other applications using their broadband connection provided by another supplier.
- 5.87 Unmanaged VoIP Service Providers can be distinguished from the other narrowband and Managed and Partially-Managed VoIP Service Providers discussed above on the basis of the following characteristics:
- (a) Unmanaged VoIP Service Providers typically have no control over the quality of voice services provided. This is because they rely entirely on third-party Service Providers to supply the supporting broadband connection and access path to the end user;

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<sup>387</sup> See paragraph 4.101 above.



- (b) As Unmanaged VoIP calls are predominantly transmitted over the internet, low-cost retail pricing structures have evolved in respect of such services, particularly in respect of VoIP-to-VoIP calls;
- (c) Unmanaged on-net VoIP communications require both parties to use the same client or application, and cross-application voice calls (e.g. from a WhatsApp user to a Skype user) are not currently possible;
- (d) As noted in paragraph 3.34, the 2016 Market Research indicated different trends in end user preferences and usage of Unmanaged VoIP services compared to traditional fixed voice telephony methods;
- (e) No Unmanaged VoIP Service Provider is currently authorised by ComReg, nor has any such provider been assigned a numbering range by ComReg. Accordingly, no such provider is currently entitled to directly provide termination services, or levy termination fees;
- (f) Unmanaged VoIP communications have traditionally not involved the widespread use of Geographic Numbers. However, this distinction is becoming less relevant where Unmanaged VoIP operators, such as Skype, can obtain rights of use to Geographic Numbers, either directly from ComReg, or from third-party FSPs and terminate incoming calls to subscribers using those numbers either itself, or using a third-party FVCT provider. In such instances, it is provisionally considered that FVCT services to such Geographic Numbers would share similar characteristics to FVCT services employing narrowband or Managed/Partially-Managed VoIP technology (i.e. due to industry-wide application of the CPP principle for calls to such Geographic Numbers).

5.88 Having regard to the above, it is ComReg's preliminary view that on-net Unmanaged VoIP calls - calls both originated and terminated on an OTT Unmanaged VoIP Service Provider - are excluded from the Relevant FVCT market, as they do not require the use of a Geographic Number. For example, a Skype-to-Skype call can be completed by means of caller identifiers other than a Geographic Number. Since Geographic Numbers are not used, no FVCT service is required, and no FTR is levied.

5.89 In respect of off-net calls (e.g. calls made from an OTT service such as Viber or Skype to a Geographic Number), a FVCT service is required in order to terminate the call to the Geographic Number, leading to a FTR being levied on the originating Service Provider.<sup>388</sup> Although originated as OTT VoIP, these calls are terminated as a narrowband or managed VoIP call. No Unmanaged VoIP Service Provider has received a numbering assignment from ComReg.

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<sup>388</sup> The special case of OTT bypass, which potentially permits a call to be completed without the provision of an FVCT service, is discussed at paragraphs 5.127 to 5.130.

- 5.90 However, OTT Unmanaged VoIP Service Providers are entitled under the *Numbering Conditions of Use* to use Geographic Numbers. An OTT Unmanaged VoIP Service Provider may itself apply for and receive an assignment of Geographic Numbers from ComReg. Alternatively, another Service Provider assigned Geographic Numbers by ComReg may transfer the rights of use associated with those numbers to the OTT Unmanaged VoIP Service Provider. In both cases, and where the OTT Unmanaged VoIP Service Provider charges (or has the ability to charge) an FTR in respect of calls incoming to such Geographic Numbers, then such services would likely fall within the definition of the Relevant FVCT Market(s).
- 5.91 Where such FVCT services to Geographic Numbers are carried out on behalf of the Unmanaged VoIP Service Provider by a third-party FVCT supplier then it is the services of the third-party FVCT supplier which would likely fall within the Relevant FVCT market(s).
- 5.92 A further consideration in respect of OTT Unmanaged VoIP is the possibility of OTT bypass, whereby a call intended to be completed by means of FVCT by an FSP is, instead, completed on the OTT's platform. OTT bypass of FVCT is not generally technically feasible, as the fixed handsets to which RFVC are generally terminated do not support OTT applications (e.g. Viber and Skype), thus preventing OTT bypass from occurring. However, in the context of future moves towards fixed-mobile convergence, ComReg may revisit this conclusion, if fixed-mobile convergence leads to convergence in respect of handsets (or other hardware) capable of facilitating both FVCT and MVCT.

### **Preliminary Conclusion on VoIP technology**

- 5.93 ComReg's preliminary view is that:
- FVCT in respect of calls to Geographic Numbers using *Managed* or *Partially-Managed* VoIP technology shares sufficient competitive characteristics with FVCT services provided with respect to calls to Geographic Numbers using narrowband (PSTN or ISDN) technology and should be considered as falling within the Relevant FVCT Markets;
  - On-net calls made between subscribers on an Unmanaged VoIP platform fall outside the Relevant FVCT Market where no FVCT service is required, and no FTR levied; and
  - To the extent that FVCT services are provided in respect of calls to Geographic Numbers using *Unmanaged* VoIP technologies, such FVCT services (where either the Unmanaged VoIP Service Provider or a host Service Provider has the ability to set the level of the FTR) are considered to share sufficiently similar characteristics to FVCT services employing narrowband technology. It is thus ComReg's preliminary view that, under such circumstances, FVCT services to Geographic Numbers using Unmanaged VoIP technology would likely form part of the Relevant FVCT Market(s).

**Is FVCT using mobile technology in the same relevant market as FVCT using narrowband technology?**

- 5.94 Another key development since ComReg's previous market review in 2007 has been the appearance of voice services delivered at a fixed location using mobile network inputs, as part of a broader trend towards fixed-mobile convergence. Call termination services delivered via mobile technology in respect of calls to end users at a fixed location have been increasingly identified by NRAs in other Member States as part of their Relevant FVCT Market(s). The rationale for their inclusion in the Relevant FVCT Market(s) has been that these services share similar functionality characteristics (limited mobility) and similar pricing structures as (retail and wholesale) voice call services delivered via narrowband technology to end users at a fixed location.<sup>389</sup>
- 5.95 WVCT services to integrated fixed-mobile offers which involve the termination of calls to end users using Geographic Numbers are sufficiently similar to WVCT services provided to Geographic Numbers delivered over narrowband technology. This is because use of the Geographic Numbers in question implies that the end user in question is receiving voice calls to such numbers at a fixed location and that service mobility is consequently limited.
- 5.96 Furthermore, as identified in other NRAs' decisions (referred to in footnote 30 below), the fact that call services to Geographic Numbers are delivered using mobile network inputs does not alter the fact that the CPP principle would still apply in respect of FVCT to such Geographic Numbers. In such instances, it is provisionally considered that FVCT services to Geographic Numbers using mobile technology would share similar characteristics to FVCT services employing narrowband technology. It is thus ComReg's preliminary view that Service Providers in such circumstances (i.e. where they supply FVCT to Geographic Numbers and have the ability to set the associated FTRs), even when using mobile technology, should be considered as FSPs falling within the Relevant FVCT Market(s) for the purposes of the present market review.

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<sup>389</sup> See, for example, cases RO 2008/0774, PL 2008/0762 and IT/2008/0777. In the latter case the European Commission commented on the fact that although AGCOM included WVCT services to integrated fixed/mobile offers in the Relevant FVCT Market (and regardless of the use of different technology, these convergent services seemed to have economic and functional characteristics similar to traditional fixed telephony services) AGCOM had proposed to defer the definition of obligations for these services until its assessment of the market for WVCT (MVCT) on individual mobile networks. In view of its inclusion in the Relevant FVCT Market, however, the European Commission called on AGCOM to impose FVCT remedies accordingly.

### **Preliminary Conclusion on mobile technology**

5.97 Accordingly, it is ComReg's preliminary view that FVCT services for calls to Geographic Numbers delivered via mobile technology are in the same Relevant FVCT Market as FVCT for calls to Geographic Numbers delivered over narrowband voice technology (e.g. PSTN or ISDN). On a forward-looking basis this preliminary view applies irrespective of whether the FVCT services are provided and charged directly by the FSP which has the relationship with the end user of the Geographic Numbers, or by a host FSP.

### **Preliminary Conclusions on candidate FVCT Product Market**

5.98 Having regard to the above, ComReg's preliminary view is that the candidate FVCT product market, being the starting point from which the question of the existence of any effective wholesale substitutes is considered, is one which:

- involves the provision of WVCT for the purpose of completing voice calls to subscribers' Geographic Numbers that have been assigned to an individual FSP;<sup>390</sup>
- involves interconnection between networks and is provided by an FSP which has the ability to set/control the FTR for calls to Geographic Numbers; and
- is technology neutral, and includes FVCT for calls to Geographic Numbers irrespective of whether the underlying technology is mobile or fixed, or, in case of VoIP telephony, whether the VoIP service is Managed, Partially-Managed or, in the case of off-net calls to Geographic Numbers, Unmanaged.

5.99 In ComReg's preliminary view, the candidate FVCT product market includes:

*“the provision by an FSP of a wholesale FVCT service to other Service Providers from the nearest point (to the End User) or level on that terminating FSP's network at which incoming voice calls can be handed over for termination to Geographic Numbers, and in respect of which that FSP is able to set the FTR”.*

5.100 ComReg considers that the product market features proposed above capture the essential characteristics of the narrowest FVCT candidate product market. Later in this section, ComReg goes on to consider whether this definition should be expanded in light of the availability of effective wholesale demand-side and supply-side substitutes.

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<sup>390</sup> The term 'Fixed Numbers' is used to collectively refer to all geographic, nomadic 076, and 112/999 numbers assigned to FSPs over the period of this market review.

## FVCT Demand-Side Substitution

5.101 Demand-side substitution at the wholesale level<sup>391</sup> measures the extent to which a purchaser of WVCT services would, in response to a SSNIP in termination rates above the competitive level, switch to purchasing available alternative substitute products such that it would render the termination rate increase unprofitable. If the level of switching to alternative products is sufficient to render the termination rate increase unprofitable (say because of the resulting loss of sales) then the alternative products are included in the relevant product market.

5.102 As noted in paragraph 13 of the European Commission's *Notice on Market Definition*, demand substitution constitutes the most immediate and effective disciplining force on the suppliers of a product, and paragraph 15 thereof notes further that:

*"...the assessment of demand substitution entails a determination of the range of products which are viewed as substitutes by the consumer."*

5.103 For two products to be effective demand-side substitutes it is necessary that a sufficient number of customers are not only capable of switching between them, but would actually do so in the short term in response to a relative price change. In this regard, the *Notice on Market Definition* states that demand-side substitution:

*".... means that, starting from the type of products that the undertakings involved sell and the area in which they sell them, additional products and areas will be included in, or excluded from, the market definition depending on whether competition from these other products and areas affect or restrain sufficiently the pricing of the parties' products in the short term."<sup>392</sup>*

5.104 Demand-side substitution may constrain the exercise of market power by Service Providers either directly, when exercised by purchasers of WVCT services at wholesale level, or indirectly, when exercised by subscribers to Service Providers at retail level.

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<sup>392</sup> Commission Notice on the definition of relevant market for the purposes of Community competition law (97/C 372/03), at paragraph 16.

## **Retail indirect demand-side substitutes**

- 5.105 Given that the demand for WVCT is derived from demand at the retail level (from the ability to complete calls to other subscribers), ComReg has considered in Section 4 whether there are, or are likely to be, (within the timeframe of this review) any indirect demand-side constraints coming from the retail market that could impact upon the Relevant FVCT Markets. ComReg's preliminary view was that such constraints were unlikely to have a material impact on the Relevant FVCT Markets.
- 5.106 In particular, ComReg does not consider Unmanaged VoIP services (such as Skype or WhatsApp) to be effective wholesale demand-side substitutes for FVCT. From the user perspective, these applications are retail rather than wholesale services, so any impact on the Relevant FVCT Markets would be as a consequence of indirect constraints emanating from the retail market. In Section 4,<sup>393</sup> ComReg considered whether a VoIP-to-VoIP call was likely to pose an effective indirect competitive constraint on FTRs and expressed the preliminary view that it does not.

## **Wholesale demand-side substitutes**

- 5.107 When considering wholesale fixed demand-side substitutes, it is firstly important to note that, given the nature of FVCT, ComReg is of the view that there are currently no existing viable demand-side substitutes at the wholesale level for the provision of FVCT. ComReg's analysis therefore focuses on potential demand-side substitutes and whether, if a SSNIP in FTRs above the competitive level occurred, a sufficient number of purchasers would switch to any potential alternative means of terminating calls.<sup>394</sup>

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<sup>393</sup> See paragraph 4.144 above.

<sup>394</sup> The special case of OTT bypass, which potentially permits a call to be completed without the provision of an FVCT service, is discussed at paragraphs 5.127 to 5.130.

5.108 ComReg will monitor any trend towards IP interconnection over the lifetime of this market review, including whether existing interconnect charging mechanisms materially change as a result. In particular, IP telephony may facilitate interconnection between FSPs (or their customers) by means of various technologies, such as VoB, Managed VoIP including SIP Trunking,<sup>395</sup> or OTT VoIP.<sup>396</sup> For instance, Virgin Media delivers its residential fixed telephony service over its broadband network, while Vodafone offers a 'Broadband Voice' product. While there has been a manifest increase in the number of VoIP technology users over alternative platforms, calls terminated by means of IP telephony (such as calls to Virgin Media or Vodafone home phone customers) incur FTRs. Moreover, ComReg notes that, in the short term, it is likely that, for a large number of users, voice services will continue to be offered over copper-based networks, with Managed VoIP-based telephony services being increasingly available over time.<sup>397</sup> In the case of existing Managed VoIP-based FSPs, such as Blueface or IP Telecom, current FTR charging arrangements still apply when terminating calls to Geographic Numbers assigned to their subscribers. It does not appear, therefore, that even where IP-based telephony has emerged, that it has resulted in the emergence of effective demand-side substitutes for FVCT.

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<sup>395</sup> SIP trunking is a VoIP service based on the Session Initiation Protocol ('SIP'), whereby a FSP delivers RFVC services to customers equipped with SIP-based private branch exchange (IP-PBX) telephony systems. In effect, SIP trunking replaces the conventional PSTN or ISDN telephone trunk

<sup>396</sup> As set out at paragraph 5.90, OTT bypass of FVCT is currently not generally technically feasible, as fixed-line handsets typically do not have the OTT apps required for OTT bypass to occur installed on them.

<sup>397</sup> ComReg Decision 05/15, "Wholesale Fixed Voice Call Origination and Transit Markets Response to Consultation and Decision", pages 37 and 86.

- 5.109 Even in the event of a widespread industry move to IP-based interconnection of voice calls over the lifetime of this market review, the question remains as to whether such interconnection would be based on the Internet (data) model,<sup>398</sup> on the circuit switched TDM<sup>399</sup> (voice) model, or some other model.<sup>400</sup> Where the CPNP and CPP principles persist in an environment of IP interconnection, it is considered likely that FVCT suppliers will still have the ability and incentive to profitably apply a wholesale SSNIP in respect of FTRs for FVCT to their own Geographic Numbers and that termination to an individual FSP's Geographic Number range would thus still constitute a separate relevant market.
- 5.110 The pricing by FSPs of FVCT (as reflected both in FSP responses to ComReg SIRs, and in the FTRs set out in the openeir STRPL)<sup>401</sup> suggests that FTRs tend not to respond to pricing stimuli other than regulation.<sup>402</sup> In particular, ComReg notes that the 2007 SMP FSPs currently set their FTRs at the maximum of the permissible regulated rate, although each FSP is free to set its FTRs below this rate, if it wishes to do so. Secondly, ComReg notes that 24 FSPs listed on the openeir STRPL are currently unregulated, and are therefore free to set their FTRs at levels other than the regulated rate. While two of these FSPs (Airspeed and Intellicom) levy FTRs at the regulated rate, the remaining 22 FSPs levy (peak) FTRs ranging from 4.5 times to 22 times the regulated rate, since they are not subject to the requirement to reduce FTRs set out in the 2012 Pricing Decision.<sup>403</sup>

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<sup>398</sup> Generally, IP-based interconnection (data traffic) is currently implemented by a mixture of peering and Transit. With peering, two Internet Service Providers ('ISPs') agree to exchange traffic solely among their respective subscribers, sometimes without payment. With Transit, one ISP agrees to carry the traffic of another ISP to third-parties, typically for a fee.

<sup>399</sup> In traditional circuit-switched networks, multiple subscriber calls are routed via shared TDM (Time Division Multiplexed) transmission paths across and between networks for efficiency. TDM is a data transmission hierarchy which facilitates the conveyance of multiple simultaneous data streams, where each is allocated a dedicated transmission capacity or bandwidth.

<sup>400</sup> See Explanatory Note to European Commission 2009 Termination Rates Recommendation, page 32. As set out in ComReg 16/69: *Market Review: Wholesale High Quality Access at a Fixed Location*, while there has been a shift in retail Leased Lines towards more modern interfaces such as Ethernet and xWDM technologies, there remains a cohort of end users who remain on analogue and TDM based LLs. In 2015, 21% of retail Leased Lines were TDM.

<sup>401</sup> Available online at <http://www.openeir.ie/WorkArea/DownloadAsset.aspx?id=4253>

<sup>402</sup> As set out in detail at paragraphs 6.87 to 6.90 below.

<sup>403</sup> ComReg Decision D12/12: "Mobile and Fixed Voice Call Termination Rates in Ireland - Response to Consultation, Decisions and Decision Instruments" (hereafter, the '**2012 Pricing Decision**'). Available online at <https://www.comreg.ie/csv/downloads/ComReg12125.pdf>



5.111 The pricing responses of both the 2007 SMP FSPs and the Unregulated FSPs indicate that the levels of FTRs are driven by regulation, rather than by responses to other factors, such as the constraint created by potential demand-side substitutes. In particular, the magnitude of the price difference between regulated and unregulated FTRs indicates that Unregulated FSPs do not face sufficient competitive constraints from e.g. demand-side substitutes to price FTRs at the proxy competitive level applied to the 2007 SMP FSPs.

## **Preliminary View on Wholesale Demand-Side Substitution**

5.112 Having regard to the above, it is ComReg's preliminary view that there are currently no effective or sufficiently immediate demand-side substitutes for FVCT, and this position is not likely to change within the timeframe of this market analysis.

## **FVCT Supply-Side Substitution**

5.113 Supply-side substitution at the wholesale level measures the extent to which a firm not currently active in supplying WVCT services would, in response to a HM's SSNIP in termination rates (above the competitive level), switch production in the immediate to short term without incurring significant costs and start supplying a WVCT service of equivalent characteristics, thereby rendering the HM's termination rate increase unprofitable.<sup>404</sup> In considering wholesale supply-side substitution, ComReg assumes that current termination rates, which are, in the case of some – but not all – Service Providers, regulated, act as a proxy for the termination rate levels which would be expected to obtain in a competitive market (i.e. in a market where no Service Provider held Significant Market Power).

5.114 If the level of supply-side substitution were sufficient to render the HM's termination rate increase unprofitable (due to the resultant loss of sales through switching to the alternative suppliers' WVCT product) then these substitutes are included in the Relevant Termination product market.

5.115 As noted in paragraph 20 of the European Commission's *Notice on Market Definition*, supply-side substitution may also be taken into account in defining markets

*“...in those situations in which its effects are equivalent to those of demand substitution in terms of effectiveness and immediacy. This means that suppliers are able to switch production to the relevant products and market them in the short term without incurring significant additional costs or risks in response to small and permanent changes in relative prices. When these conditions are met,*

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<sup>404</sup> See paragraph 39 of the SMP Guidelines.

*the additional production that is put on the market will have a disciplinary effect on the competitive behaviour of the companies involved. Such an impact in terms of effectiveness and immediacy is equivalent to the demand substitution effect.”*

5.116 It is also worth reiterating that, in order for supply-side substitutes to be taken into account when defining relevant product markets, its effects should be equivalent to those of demand-side substitution in terms of effectiveness and immediacy.

5.117 Paragraph 23 of the *Notice on Market Definition* also notes that:

*“When supply-side substitutability would entail the need to adjust significantly existing tangible and intangible assets, additional investments, strategic decisions or time delays, it will not be considered at the stage of market definition. .... In these cases, the effects of supply-side substitutability and other forms of potential competition would then be examined at a later stage.”*

5.118 Having regard to the above, it is ComReg’s view that any relevant supply-side substitution should be sufficiently imminent to be capable of constraining the profitability of a SSNIP in wholesale termination rates.<sup>405</sup>

5.119 ComReg examines below other potential sources of WVCT supply. In doing so, ComReg has considered Service Providers’ responses to the SIRs issued, in particular, views and evidence on whether any potentially effective supply-side substitutes for WVCT exist.

5.120 ComReg has also had regard to the analysis in Section 4 regarding pricing structures and consumer/SME behaviour in the related retail markets and the preliminary conclusions<sup>406</sup> on the impact of such behaviours on the Relevant Termination Markets.

5.121 In this section, ComReg considers the possibility of FVCT supply-side substitution under the following headings:

- Responses to Statutory Information Requests (at paragraphs 5.122 to 5.124 below);
- Entry of New FSPs (at paragraphs 5.125 to 5.126 below);
- Entry to FVCT through Other Technologies (at paragraphs 5.127 to 5.132 below);
- Service Providers other than the called party’s Service Provider (at paragraphs 5.134 to 5.136 below); and
- Self-supply of WVCT (at paragraphs 5.138 to 5.142 below).

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<sup>405</sup> In this regard, supply-side substitution would likely involve additional investment in networks and associated billing systems as well as the associated time delay in doing so.

<sup>406</sup> See paragraph 4.249.

## Responses to Statutory Information Requests

- 5.122 In its response to a SIR issued by ComReg,<sup>407</sup> one FSP [redacted] indicated that, during 2016, it had become aware through its wholesale customers of inbound and outbound calls being re-routed, without the FSP's knowledge, to [redacted] for termination without the FSP's knowledge. The respondent described this practice as 'Call Termination Bypass'. ComReg considers this phenomenon in greater detail below in paragraph 5.127.
- 5.123 Another respondent [redacted] indicated that the prevalence of OTT voice services such as Skype could lead to a strategic repositioning of its voice services at the retail level as a premium service, with initiatives such as high definition voice and converged voice, but did not indicate that OTT services are effective supply-side substitutes for FVCT.
- 5.124 No other SIR respondent identified any effective wholesale supply-side substitutes for FVCT.

## Entry of New FSPs

- 5.125 ComReg has considered whether supply-side substitution could also potentially arise from the entry of new FSPs into the Relevant FVCT Market. In its 2012 FVCT Consultation, ComReg identified 19 candidate undertakings which fell within the scope of the draft Decision Instrument.<sup>408</sup> Allowing for name changes and acquisitions, ComReg has identified three new FSPs which appear to have entered the market since the 2012 FVCT Consultation (Dialoga Servicios Interactivos S.A., Telcom Ltd, and Intellicom). Although FSPs do not necessarily have to construct a full end-to-end telecommunications network to enter the market, they will nevertheless incur the potentially sunk costs of constructing the appropriate level of interconnected infrastructure from the subscriber premises to the primary, secondary or tertiary exchange. As set out in paragraph 5.12 above, alternative FSPs may interconnect at different points of the network, depending on their level of infrastructural investment.
- 5.126 Regardless of the level of new market entry by FSPs, ComReg is unaware of any deployed mechanism which would permit, for instance, a new entrant FSP to provide FVCT services in respect of calls destined for a subscriber of another FSP. In particular, no such mechanism was described in any FSP SIR response. Accordingly, ComReg's preliminary view is that supply-side substitution from entry of new FSPs is unlikely to effectively constrain the price-setting behaviour of a HM supplier of FVCT. ComReg is not at this time aware of any future developments that would lead it to alter its view.

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<sup>407</sup> The SIR was issued on 8 July 2016, and a response was provided on 2 September 2016.

<sup>408</sup> Airspeed, Blue Face, BT Communications, Cable & Wireless, Colt Technology Services, Digiweb, Eircom, Equant, Finarea, Imagine Communications, In2com, Magnet Networks, Magrathea, Modeva Networks, New Concepts Tech, UPC Communications, Verizon, Voxbone and 3Play Plus.

## Entry to FVCT through Other Technologies

- 5.127 ComReg is aware of the possibility of OTT operators bypassing call termination, as described by one FSP respondent to the SIRs (and as noted in paragraph 5.122 above). This practice is known variously as ‘Call Termination Bypass’, ‘OTT bypass’, and even ‘OTT hijacking’. The central premise of this conduct is that an OTT provider terminates calls to a mobile number onto its OTT platform, without the knowledge or agreement of the originating Service Provider, or the ‘intended’ terminating MSP. In this way, the ‘intended’ terminating MSP does not charge a MTR for providing MVCT to the originating Service Provider as it is bypassed.
- 5.128 As set out at paragraph 5.92 above, ComReg’s research indicates that OTT bypass of FVCT is not generally technically feasible, as the fixed handsets to which RFVC are generally terminated do not currently support OTT applications, thus preventing OTT bypass from occurring. Moreover, no respondent indicated that it had altered its wholesale or retail pricing strategies in response to OTT provision. Accordingly, ComReg’s preliminary view is that this development in is unlikely to effectively constrain FTR-setting behaviour in the lifetime of this market review. The development and commercialisation of such technologies in future may require ComReg to revisit these views.
- 5.129 In issuing SIRs to FSPs, ComReg specifically asked whether FSPs had altered their pricing strategies in response to the increasing prevalence of OTT services. Only one respondent FSP indicated that it had responded to increased usage. [REDACTED]  
[REDACTED]  
[REDACTED] In essence, this response appears to relate to pressures exerted by OTT providers with respect specifically to calls to international numbers, rather than with respect to FVCT, *per se*.
- 5.130 No respondent indicated that it had altered its wholesale or retail pricing strategies in response to OTT provision. Accordingly, ComReg’s preliminary view is that this development in itself is unlikely to effectively constrain FTR-setting behaviour in the lifetime of this market review. The development and commercialisation of such technologies in future may require ComReg to revisit its views in this regard.

- 5.131 ComReg has considered whether a move to IP interconnection (rather than traditional circuit switched interconnection) would impact on the Relevant FVCT Markets from a supply-side perspective. IP interconnection facilitating a VoIP call, where the call is handed over between FSPs (or between MSPs and FSPs) as a data stream and possibly terminated to an IP address (rather than a Geographic Number<sup>409</sup>), could act as a competitive constraint on the provision of FVCT. However, this would require changes to existing interconnect arrangements between Service Providers, and the associated charging regime. For example, Service Providers would require network/switching investments, and associated interconnect charging arrangements<sup>410</sup> would need to change to impose a competitive constraint on FTRs.
- 5.132 Based on the information available to ComReg, supply-side substitution from IP interconnection (and associated changes to charging arrangements) is not likely to occur within the short to medium term period following the completion of this market analysis and would not be likely to act as an effective competitive constraint on the price-setting behaviour of a HM supplier of FVCT. This position may change in future in light of the emergence of such interconnection arrangements and their impact on the Relevant FVCT Market and, should this arise, ComReg will consider its position.

### **Preliminary View on Supply-Side Substitution**

- 5.133 Having regard to the above, ComReg's preliminary view is that no effective or sufficiently immediate supply-side substitutes currently exist, or are expected to exist for FVCT. This position is unlikely to change in the lifetime of this market analysis.

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<sup>409</sup> For the avoidance of doubt, the provision of FVCT by an FSP over an IP network that still involves access to the subscriber's Geographic Number (and for which the FSP has control over the FTR which is levied according to current arrangements) would still be considered to fall within the Relevant FVCT Market, given that it exhibits the same economic bottleneck.

<sup>410</sup> For example, a move to IP interconnection that still involves the imposition of a termination charge may not impose a constraint, given that the economic bottleneck is similar to that which currently exists.

## **Service Providers other than the Called Party's Service Provider**

- 5.134 Supply-side substitution could potentially come from an existing or new entrant Service Provider that has the necessary infrastructure, resources and expertise to supply FVCT. However, for such Service Providers to terminate calls to an FSP's subscriber, the called party's number would need to be capable of facilitating FVCT by either the called party's home network or the network of the Service Provider now supplying the FVCT alternative. To do this, the originating Service Provider would need to have the ability and incentives to control the routing of the call to either the called party's home network or the network of the alternative FSP. This would also require terminating Service Providers to provide the technical capability to do so on their networks, along with any other necessary systems developments (e.g. billing systems etc.).
- 5.135 In order for effective supply-side substitution to occur, the called party would also need to be sensitive to the cost faced by the calling party when calling them. This is because some agent must be capable of recognising that a SSNIP in termination rates has occurred, and responding accordingly by switching to an alternative provider of FVCT services. Given the CPP principle, it is the calling party's network which bears the cost of the SSNIP in FTRs. Accordingly, the called party must be able to observe the calling party's costs to decide whether it is economically rational to switch to a supply-side substitute. For the reasons set out in Section 4,<sup>411</sup> ComReg considers that this awareness is likely to be low.
- 5.136 It is ComReg's preliminary view that the current inability of an originating Service Provider to switch the terminating network from the home network of the called party to another network is likely to mean that such supply-side substitution would not pose an effective constraint on the price-setting behaviour of a HM FVCT supplier. ComReg considers that it is unlikely that a Service Provider terminating calls faces sufficient incentives for it to engage in the necessary network and other technical developments and to co-operate with potential competitors in order to facilitate the development of effective supply-side substitutes with a view to bypassing its network. Furthermore, as noted in the discussion of end user awareness and sensitivity in Section 4 above, called parties are unlikely to be sufficiently aware of/sensitive to the costs others face when calling them to maintain multiple subscriptions with different Service Providers for the purpose of availing of the most cost effective FVCT arrangement.

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<sup>411</sup> See paragraph 4.50 above.

## Other considerations (FVCT and MVCT)

5.137 ComReg sets out and analyses below a number of other considerations relevant to the definition of both the FVCT and MVCT product markets.

### Self-Supply of WVCT

5.138 The question arises as to whether self-supply by a vertically-integrated supplier of WVCT – including FVCT - should be included in the relevant market, and whether such self-supply is likely to sufficiently constrain a HM supplier of WVCT from setting its termination rates above the competitive level.

5.139 It is ComReg's preliminary view that a Service Provider's self-supply of WVCT does not fall within the Relevant FVCT Market (or Relevant MVCT Market), given that the conditions of competition associated with self-supply differ from those associated with the supply of WVCT to other undertakings, and the technical infeasibility of one Service Provider terminating calls to subscribers of another Service Provider. As a result, self-supply is unlikely to constrain a HM Service Provider's termination rate-setting behaviour in supplying WVCT to other Service Providers.

5.140 In the discussion of wholesale supply-side substitution above,<sup>412</sup> ComReg has already considered whether potential sources of self-supply from existing/new-entrant Service Providers other than the HM WVCT supplier would act as an effective constraint in respect of calls to numbers for market definition purposes and has found that it would not.

5.141 The question also arises whether a HM Service Provider's termination rate-setting behaviour in supplying WVCT to other Service Providers would be constrained by its own supply of termination in providing 'on-net' calls. Such a HM Service Provider is unlikely to raise the price<sup>413</sup> of self-supplied 'on-net' termination given that it would likely result in an increase in its retail prices and potentially make its own services less attractive,<sup>414</sup> compared to those of competitor Service Providers. Because of this, the Service Provider's incentives regarding the price of 'on-net' self-supplied termination are different to those in relation to the price of off-net WVCT supplied to other Service Providers:

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<sup>412</sup> See paragraph 5.113 above.

<sup>413</sup> As noted above, homogeneous conditions of competition and a common pricing constraint exist in the supply of WVCT by Service Providers. In view of this, Service Providers do not generally differentiate termination rates according to the subscriber number called. One divergence to this approach relates to termination rates for 'on-net' calls, i.e. a Service Provider's self-supply of termination for the purpose of facilitating on-net calls.

<sup>414</sup> To the extent that a Service Provider's subscribers would respond to increases in retail prices, the Service Provider has the ability to price discriminate through the use of differential on-net tariffs and, in the case of businesses, offer discounts for calls to particular users etc.

- (a) Wholesale purchasers of WVCT services may in turn be direct competitors of the supplier of WVCT services at retail level. Hence, the supplier does not have the same commercial incentives to minimise the costs of 'off-net' WVCT (whereas for on-net WVCT it does).
- (b) A Service Provider increasing termination rates associated with the supply of WVCT to other undertakings raises its competitors' costs and impacts their retail prices. ComReg considers that any consequential indirect constraints coming from the retail market are unlikely to sufficiently impact the terminating Service Provider's termination rate-setting behaviour.

5.142 In view of the above, it is ComReg's preliminary position that, having regard to the circumstances of this particular market analysis, the self-supply of WVCT should be excluded from the Relevant FVCT Market (and Relevant MVCT Market) definition from a product perspective. ComReg has considered the implications of excluding self-supply from the Relevant FVCT Market for the efficacy of the SMP obligations which it proposes to impose, and has set out its preliminary views in this regard in Section 8 in its assessment of the proposed Non-discrimination and Price Control obligations.<sup>415</sup>

## Overall Preliminary Conclusion on FVCT Product Market(s)

5.143 It is ComReg's preliminary view that there are not likely to be any effective demand-side or supply-side substitutes to FVCT supply within the timeframe of this market analysis. ComReg has also considered the strength of any indirect constraints from the retail market on FVCT and has set out its preliminary view in Section 4<sup>416</sup> that they are similarly likely to be insufficient to act as an effective competitive constraint.

5.144 It is ComReg's preliminary view that the wholesale FVCT product market therefore consists of:

*“the provision by an FSP of a wholesale FVCT service to other Service Providers from the nearest point to the End User or level on that terminating FSP's network at which incoming voice calls can be handed over for termination to Geographic Numbers,<sup>417</sup> and in respect of which that FSP is able to set the FTR.”*

5.145 ComReg considers that the above definition is sufficiently flexible yet clear enough to identify the Relevant FVCT Market over the timeframe of the current review.

<sup>415</sup> As set out in greater detail at paragraphs 8.48 to 8.60 and 8.98 to 8.173 below.

<sup>416</sup> As set out in paragraphs 4.182 to 4.243 and 4.246 to 4.248 above.

<sup>417</sup> The current definition of a Geographic Number in the Numbering Conditions of Use is a number from the National Numbering Scheme where part of its digit structure contains geographic significance used for routing calls to the physical location of the network termination point ('NTP').



- 5.146 As noted above, this definition is independent of the underlying technology and encompasses all network technologies which facilitate (existing and/or future) offers by FSPs of FVCT for incoming calls to subscribers utilising Geographic Numbers, and where they have the ability to determine FTRs in respect of such FVCT services within the lifetime of this market review.<sup>418</sup>
- 5.147 Technically speaking, FVCT is provisionally defined as the nearest point to the end user, or level on the terminating network at which calls can be handed over for termination (i.e. on a traditional PSTN network this would be at the primary exchange) of the Geographic Number for which the call is destined.
- 5.148 Accordingly, it is ComReg's preliminary view that the FVCT services offered by the Group A and Group B FSPs listed below (and in Annex 5) fall within the above description and their supplies of FVCT are consequently each considered to form a Relevant FVCT Market for the purposes of this market review.

**Table 15: List of Group A, B and C FSPs**

<b>Group A</b>		
Eircom	Magnet Networks	BlueFace
BT Ireland Communications	Telcom	Modeva Networks
Vodafone Ireland	In2com	Equant Network Services International
Verizon Ireland	Finarea SA	Dialoga Servicios Interactivos
Virgin Media Ireland	Viatel Ireland	Intellicom Ireland
PlanNet 21	Voxbone SA	Magrathea Telecommunications
Airspeed Communications		
Colt Technology Services	<b>Group B</b>	<b>Group C</b>
Imagine Communications	I.P. Telecom	Procom Voice Solutions Ltd, t/a Speechpath

<sup>418</sup> In respect of the list of existing Service Providers identified as providing FVCT for the purposes of this review this includes any of the listed Service Provider's subsidiaries and any undertaking which it owns or controls and any undertaking which owns or controls it, and its successors, affiliates and assigns.

5.149 Furthermore, it is recognised that the FSPs that supply FVCT may vary over the lifetime of this market review. Where any new-entrant FVCT suppliers (e.g. such as the Group C FSPs listed in Annex 5) indicate formal plans (including relevant timelines) to provide/charge for FVCT over the current review period, while the particulars of each case will be considered, ComReg proposes to rely on the current detailed assessment in coming to a view on whether such new-entrant FVCT suppliers meet the above criteria for consideration as a Relevant FVCT Market in their own right and, thus, whether a competition assessment should be carried out. ComReg will confirm the latest position on Group C's intentions prior to the issuing of its final Decision arising from this Consultation and update its analysis accordingly.

## FVCT Geographic Market

5.150 In this subsection ComReg considers the geographic scope of the Relevant FVCT Markets. The European Commission has noted that the relevant geographic market is

*“..... an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different.”<sup>419</sup>*

5.151 Having regard to the FVCT product market definition, ComReg proposes to define separate Relevant FVCT Markets in respect of the FVCT services provided by each individual FVCT supplier. The rationale for defining the Relevant FVCT Market(s) according to the scope of each individual FSP's Geographic Numbers builds on the approach taken in the 2007 FVCT Decision and the 2012 FVCT Consultation that individual markets exist corresponding to the scope of each individual FSP's termination network, while recognising that the scope of an FSP's overall physical network may not completely correspond to the precise scope of control over FVCT to the assigned number ranges. For the purposes of the present market review, “*voice call termination on individual public telephone networks at a fixed location*” is taken to encompass all FVCT services provided by each FSP in respect of Geographic Numbers utilised by their subscribers. Hence, this ‘number-based’ definition of FVCT also inherently reflects the geographic dimension of those services (i.e. the geographic market corresponds to the (combined) locations of all subscribers using Geographic Numbers and in respect of which the FVCT supplier has the ability to set/control the FTR for calls to Geographic Numbers).

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<sup>419</sup> European Commission Notice on Market Definition, paragraph 8.

5.152 Defining the relevant market according to the scope of an FSP's FVCT services to Geographic Numbers further recognises the homogeneous conditions of competition and the presence of a common pricing constraint underpinning the delivery of FVCT by each FSP in respect of calls to Geographic Numbers. In terms of calls to end users the current conditions relating to the supply of FVCT by an FSP do not differ (nor are they likely to) on the basis of the particular Geographic Number or location of the subscriber called. FSPs supplying FVCT in respect of calls to end users do not generally differentiate their FTRs on the basis of the particular Geographic Number/subscriber called. The FTR is the same irrespective of the Geographic Number/subscriber called and altering this position would likely involve substantial investment in billing systems and potential technical difficulties.

## **Supply of FVCT with respect to calls originated abroad**

5.153 FSPs terminate calls originated both domestically and abroad as part of their business. Similarly, FSPs in other jurisdictions will terminate calls originated on Irish networks. ComReg considers that the provision of FVCT services by an FSP to its Geographic Numbers located in the State includes the provision of such services to originating and transiting providers, regardless of whether they are located in Ireland or abroad, given that the same FVCT service is provided to any service provider from a functional and technical perspective, regardless of their location.<sup>420</sup>

## **Preliminary conclusion on wholesale FVCT geographic market**

5.154 On the basis of the above analysis the geographic scope of each Relevant FVCT Market is thus defined by the scope of each FSP's FVCT offering in respect of calls to its Geographic Numbers. It is ComReg's preliminary view that the geographic scope of the wholesale Relevant FVCT Markets is thus consistent with each FSP's (combined) FVCT offering to Geographic Numbers utilised by subscribers at their respective fixed locations.

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<sup>420</sup> A proportion of incoming international calls is routed by means of Transit. Depending on their sight of the originating number, terminating FSPs may not be able to determine the origin of internal calls terminated to them by means of Transit. Accordingly, data in respect of FVCT of calls originated abroad are incomplete.

## Overall preliminary conclusion on the Relevant FVCT Markets

5.155 Having regard to the above analysis, it is ComReg's preliminary view that the Relevant FVCT Markets consist of:

*“the provision by a FSP of a wholesale FVCT service to other Service Providers from the nearest point to the End User or level on that terminating FSP's network at which incoming voice calls can be handed over for termination to Geographic Numbers, and in respect of which that FSP is able to set the FTR.*

*The geographic scope of the Relevant FVCT Market(s) corresponds to the geographic coverage of each individual FSP's network.”*

5.156 For the avoidance of doubt:

- (a) This is a technology neutral market definition and the use of the term 'FSP' in the above context is intended to refer to any Service Provider supplying the FVCT services concerned, irrespective of the underlying technology (i.e. wired or wireless); and
- (b) 'Other Service Provider' includes any authorised undertaking,<sup>421</sup> whether located in the State or in another jurisdiction.

5.157 Having regard to the above market definition, it is ComReg's preliminary view that the following separate Relevant FVCT Markets exist for the purposes of the present FVCT market review:

- Wholesale FVCT supplied by Airspeed Communications Unlimited;
- Wholesale FVCT supplied by Blue Face Limited;
- Wholesale FVCT supplied by BT Communications Ireland Limited;
- Wholesale FVCT supplied by Colt Technology Services Limited;
- Wholesale FVCT supplied by Dialoga Servicios Interactivos, SA;
- Wholesale FVCT supplied by Eircom Limited;
- Wholesale FVCT supplied by Equant Network Services International Limited;
- Wholesale FVCT supplied by Finarea SA;
- Wholesale FVCT supplied by Imagine Communications Ireland Limited;
- Wholesale FVCT supplied by Intellicom Ireland Limited;
- Wholesale FVCT supplied by Internet Protocol Telecom Limited;

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<sup>421</sup> Pursuant to Regulation 4 of the Authorisation Regulations (European Communities (Electronic Communications Network and Services) (Authorisation) Regulations 2011 (S.I. No. 335 of 2011).

- Wholesale FVCT supplied by In2tel, a business name of In2com Limited;
- Wholesale FVCT supplied by Magnet Networks Limited;
- Wholesale FVCT supplied by Magrathea Telecommunications (Ireland) Limited;
- Wholesale FVCT supplied by Modeva Networks Unlimited;
- Wholesale FVCT supplied by PlanNet 21 Communications Limited (or, for the avoidance of doubt, its 100% owned subsidiary, 3Play Plus Limited);
- Wholesale FVCT supplied by Telcom Limited;
- Wholesale FVCT supplied by Verizon Ireland Limited;
- Wholesale FVCT supplied by Viatel Ireland Limited;
- Wholesale FVCT supplied by Virgin Media Ireland Limited;
- Wholesale FVCT supplied by Vodafone Ireland Limited; and
- Wholesale FVCT supplied by Voxbone SA.

5.158 ComReg intends to keep the Relevant FVCT Markets under review, following the adoption of its Decision arising from this Consultation, having regard to technological and other developments which may lead to the emergence of any potentially effective demand-side and/or supply-side substitutes.

**Q. 4. Do you agree with ComReg’s preliminary conclusions on the wholesale FVCT product market and geographic market definition assessment? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

## Defining the Relevant MVCT Market(s)

5.159 Having assessed and defined the Relevant FVCT Markets, ComReg now assesses the definition of the candidate Relevant MVCT Markets, employing a similar methodological approach. The European Commission, in its 2014 Recommendation on relevant product and service markets within the electronic communications sector, has established that the wholesale MVCT market is susceptible to *ex ante* regulation, defining the market as:

*“Wholesale voice call termination on individual mobile networks.”*

5.160 In defining Relevant MVCT Markets, ComReg takes the provision of a MVCT service by an individual MSP as its starting point (i.e. calls terminated by a MSP to its subscribers’ mobile numbers).

5.161 As was the case in the retail market, ComReg begins its analysis by considering a narrow candidate wholesale service involving the provision of a MVCT service for the purpose of completing a call to a mobile subscriber. From here, ComReg examines whether this narrow product market should be broadened to include other wholesale products or services, taking account of any effective demand-side and supply-side substitutability considerations.

## What is a Mobile Voice Call Termination (MVCT) Supplier?

5.162 In the context of identifying an MVCT candidate product, it is first necessary to consider what constitutes an MVCT supplier.

- (a) Firstly, an MVCT supplier is an MSP that must be capable of providing MVCT for the purpose of completing incoming calls to its subscribers at non-fixed locations, i.e. while the subscriber may be in motion and irrespective of the subscriber's location. To do this, a MSP must have access to spectrum that is capable of being used to support such mobility. MSPs that do not have direct access to spectrum can conclude commercial agreements with mobile network operators ('**MNOs**') to provide wholesale mobile virtual network operator ('**MVNO**') call conveyance (origination and, depending on circumstances, also Transit and termination<sup>422</sup>) and other services on their network, thereby enabling mobile services to be offered in the absence of direct access to spectrum.
- (b) Secondly, in order to provide call termination services an MVCT supplier must be interconnected with at least one other network. Absent this, all calls would effectively be on-net and no external MVCT service would be provided. Given that MVCT is essentially a wholesale interconnect service, it follows that the supplier of MVCT should have the ability to set the associated MTRs for the relevant service. While traditional MNOs (i.e. those MSPs allocated with spectrum providing mobile services) have the ability to set the level of the MTR, the ability of an MVNO to do so will depend on the commercial relationship with its host MNO.<sup>423</sup>
- (c) Thirdly, calls to mobile users are routed to mobile networks according to mobile network routing codes, with final routing and switching of the call effectively based on individual subscribers' mobile numbers. In doing so, the terminating MSP will need to ascertain the location<sup>424</sup> of the mobile user and, following any necessary authentication, hand the call over to the user's handset. MSPs providing call termination, therefore, control access to end user call recipients through their assignment of mobile numbers.

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<sup>422</sup> Full MVNOs provide their own termination services, whereas reseller MVNOs do not.

<sup>423</sup> For example, TMI, Lycamobile, Virgin Media and iD Mobile (all hosted on Three's network) determine their own MTR, whereas Postfone (hosted on Vodafone's network) does not determine its own MTR.

<sup>424</sup> Typically, subscriber locations are identified through the Home Location Register ('**HLR**').

5.163 ComReg acknowledges that it may be possible to use other means to route voice calls to mobile subscribers, for example a mobile VoIP-to-VoIP call over a data network (rather than a circuit switched connection) can involve the use of identifiers such as email addresses or IP addresses. However, these services do not currently involve interconnection.

5.164 ComReg's preliminary view is that the starting point for the MVCT product market definition is that it includes the following characteristics:

- it involves interconnection between networks;
- it involves call termination for the purpose of completing voice calls to subscribers/mobile numbers assigned to an individual MSP, which implies that control of the subscriber's mobile number has been assigned (or transferred) to an individual MSP; and
- the supplier of MVCT should have the ability to set and control the associated charges (MTRs) for the relevant MVCT service.

### **Should MVCT be defined at the network or individual subscriber level?**

5.165 In taking the above starting point, ComReg could seek to define a narrow product market involving the provision of MVCT by a MSP at an individual subscriber level (identified by their mobile number). However, given homogeneous conditions of competition and the presence of a common pricing constraint<sup>425</sup> for call termination to all subscribers of a particular MSP, ComReg's preliminary view is that the starting point for the definition of the Relevant MVCT Markets should include the provision of MVCT to all subscribers of an individual MSP.<sup>426</sup>

### **Is MVCT part of a wider mobile services market?**

5.166 ComReg has also considered whether the Relevant MVCT Markets are part of a broader cluster market which incorporates a range of retail and/or wholesale mobile services, for example, where mobile subscribers purchase a bundle of retail services (such as access, calls and SMS) and mobile termination.

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<sup>425</sup> MSPs supplying MVCT do not differentiate their MTRs on the basis of the mobile number/subscriber called. The MTR is the same irrespective of the mobile number/subscriber called and altering this position would likely involve substantial investment in billing systems and technical challenges. An exception arises in the case of numbers ported from one MSP to another MSP. In such instances, a higher MTR is levied to account for the extra costs involved in terminating to a number which was originally associated with another network, and subsequently ported by means of MNP.

<sup>426</sup> Note that this does not mean that the supply of MVCT for one subscriber/mobile number is a substitute for the supply of MVCT to another subscriber/mobile number on another network, as neither will constrain each other's MTRs.

- 5.167 It is also worth noting that MVCT is a wholesale service which is purchased by other Service Providers as a standalone service, i.e. at wholesale level, it does not form part of a bundle together with other interconnection services, such as origination and termination, unless it is sold with Transit. Accordingly, MTRs increase the costs faced by FSPs and rival MSPs, rather than the terminating MSP itself.
- 5.168 Were such a broad bundled market to exist, the MSP would not be able to increase its MTRs above the competitive level without reducing the price of other services in the bundle to maintain the overall bundle price as, absent such reductions, sufficient subscribers would likely switch to purchasing the bundle from another MSP in response to an increase in the bundle price.
- 5.169 MSPs do not compete at the retail level on the basis of the price of incoming calls (although lower on-net than off-net pricing, where it exists, may reflect some degree of differentiation). As of September 2017, billpay plans offered by eir Mobile, iD Mobile, Virgin Media and TMI did not distinguish in any way between on-net and off-net calls, while in the case of Lycamobile, Vodafone, and Three, cheaper plans tend to offer limited off-net minutes but unlimited on-net minutes, while more expensive plans offer unlimited on-net and off-net minutes.
- 5.170 In view of the above, ComReg does not consider that the price of wholesale MVCT is likely to be constrained by bundled services. It is ComReg's preliminary view that the Relevant MVCT Markets are standalone product markets and do not incorporate other services.

#### **What range of numbers should be included in the Relevant MVCT Market(s) for calls to end users at mobile locations?**

- 5.171 In considering the scope of the MVCT product market, ComReg has considered the range of numbers associated with the provision of MVCT. Calls to mobile numbers typically involve calls to end users and are typically terminated by the MSP controlling the switching, routing and completion of the incoming call to the subscriber's mobile number. At the wholesale level, call termination to mobile numbers is currently priced on a CPNP basis, as described above.<sup>427</sup> At the retail level the operation of the CPP principle in the case of calls to mobile numbers contributes to a disconnect between the choice of making/paying for a call (including the associated MTR) which is determined by the calling party, and the choice of the MVCT supplier which is determined by the called party. This removes an important pricing constraint on the MVCT supplier in question.

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<sup>427</sup> See paragraph 5.36 above.



5.172 Since the 2014 Recommendation defines the relevant market as WVCT on individual mobile networks, ComReg takes the number range most frequently involved in supplying inbound call services to such end users (i.e. mobile numbers) as its candidate product for the definition of the Relevant MVCT Market, and assesses whether calls to other number ranges should form part of this relevant wholesale market.

5.173 The *Numbering Conditions of Use*, as may be amended from time to time, define Mobile Numbers in the following terms:

*“Mobile Numbers shall have the digit structure “mobile network access code (08X) + 7-digit subscriber number”, where X is a number from 3 to 9 incl.”<sup>428</sup>*

5.174 Accordingly, at a minimum, the Relevant MVCT Markets include the range of mobile numbers having the mobile network access codes 083, 084, 085, 086, 087, 088 and 089, as may be amended by ComReg from time to time.

**Is MVCT to numbers other than 08x numbers part of the Relevant MVCT Market(s)?**

5.175 The *Numbering Conditions of Use* lists ten classes of number, as follows:<sup>429</sup>

- (a) Geographic Numbers;
- (b) Non-Geographic Numbers;
- (c) Freephone numbers;
- (d) Shared Cost numbers;
- (e) Mobile numbers;
- (f) Nomadic numbers;
- (g) Premium Rate Service Numbers;
- (h) Universal Access numbers;
- (i) Internet Access numbers; and
- (j) ‘Bursty’ Traffic numbers

5.176 Class (e) has already been identified as falling with the Relevant MVCT Market, while Classes (a) and (f), as well as emergency 112/999 numbers fall within the Relevant FVCT Markets. ComReg is of the preliminary view that the remaining classes of numbers fall to be excluded from the Relevant MVCT Markets, as they are not numbers associated with the provision of MVCT.

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<sup>428</sup> At section 4.5.1.

<sup>429</sup> See Section 4 of the *Numbering Conditions of Use*.

5.177 Mobile numbers, by definition, facilitate mobility in the sense that users may make and receive calls on their mobile phone from various locations, and while in transit. VASPs, on the other hand, are typically located at fixed locations. Accordingly, calls to VASP numbers (typically, Classes (c), (d) and (h) above) are unlikely to require that routing of the call be carried out by reference to mobile network or routing codes.

5.178 Even if a call to a VASP number necessitated the provision of MVCT and the levying of an MTR, such numbers would likely fall to be excluded from the relevant market due to the operation of differing competitive constraints on VASPs having regard to the revenue sharing characteristics of such calls, and as set out in greater detail in paragraphs 5.39 to 5.50 above.

### **Preliminary Conclusion on Number Ranges in Relevant MVCT Market(s)**

5.179 On the basis of this analysis, ComReg takes the preliminary view that the Relevant MVCT Market includes the provision of MVCT services to all mobile numbers, as the term is defined in the Numbering Conditions of Use, as may be amended from time to time. Currently there are 8 authorised undertakings in the State which have been assigned mobile subscriber numbers by ComReg (although one undertaking – Liffey Telecom – is a wholly-owned subsidiary of Three, whose numbering assignments are allocated to TMI).<sup>430</sup>

### **Is the Relevant MVCT Market technology neutral?**

5.180 ComReg approaches market definition from a technology neutral perspective<sup>431</sup> and it is ComReg's view that there should be no differences in the treatment of MVCT on the basis of whether a MSP terminates a voice call employing 3G, 4G, 5G<sup>432</sup> or other mobile technology standards. Similarly, ComReg is of the view that WiFi calling, such as the Eir WiFi calling product launched in May 2017<sup>433</sup> falls within the Relevant MVCT market, so long as the WiFi call attracts an MTR when terminated. WiFi calling makes use of mobile numbers (rather than any other identifiers) for the purposes of call routing, and acts as a complement to, rather than a substitute for, traditional mobile connectivity, particularly in circumstances where mobile coverage is poor. In these respects, ComReg considers WiFi calling to be sufficiently similar to other mobile technology standards that it should fall within the Relevant MVCT Market.

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<sup>430</sup> Lycamobile, iD Mobile, Virgin Media, Liffey Telecom, Eircom, Vodafone, Three & eir Mobile.

<sup>431</sup> In accordance with Regulation 16(1)(a) of the Framework Regulations.

<sup>432</sup> ComReg notes that it is unclear whether, within the lifetime of this market review, 5G based mobile services could emerge, as common 5G standards are not expected to be globally agreed before 2019. On a forward looking basis, however, ComReg sees no reason to treat this technology differently.

<sup>433</sup> <https://www.eir.ie/opencms/export/content/pdf/terms/EirWiFiCallTermsandconditions.pdf>

- 5.181 Neither MSPs nor FSPs currently differentiate their retail charges for calls to mobiles on the basis of whether the called party is on a 3G, 4G or other technology employed by the terminating MSP. Even if they were to do so, it is not clear how a calling party would know what underlying technology supported the call to the called party or indeed, determine the basis of the technology to be used to terminate the call. Rather, the terminating MSP decides whether the call is terminated on its 3G or 4G network, and the same would likely hold in future in the case of 5G networks.
- 5.182 Similarly, no MSP charging a MTR does so having regard to the underlying network technology/standard used in its supply of MVCT. Indeed, it is not immediately clear to ComReg that an MSP, in providing MVCT on its network faces an incentive to compete with itself in the supply of termination, i.e. while it may be technically feasible for the same MSP to have different MTRs for 3G and 4G calls, were an MSP to offer 3G mobile termination it is unlikely to act as a sufficient competitive constraint on its 4G termination rates (and vice versa) given that it would, in effect, be competing with itself.
- 5.183 ComReg's preliminary view, therefore, is that the definition of MVCT product markets should be on a technology-neutral basis.

**Is MVCT delivered over Voice over Internet Protocol ('VoIP') technology in the same Relevant MVCT Market as MVCT using traditional voice technology?**

- 5.184 As noted above, a key development since the last review has been the growth of VoIP. ComReg considers VoIP services according to three broad categories: Managed VoIP, Partially-Managed VoIP and Unmanaged VoIP services.

**(i) Managed and Partially-Managed VoIP Services**

- 5.185 Having regard to the increasing uptake of VoIP services, ComReg considers whether MVCT to mobile numbers using VoIP technology forms part of the Relevant MVCT Market(s). ComReg assesses whether the competitive characteristics underpinning the wholesale supply of MVCT to mobile numbers over both Managed and Partially-Managed VoIP, and PSTN technology respectively justify their inclusion in the same Relevant FVCT market(s).
- 5.186 Managed and Partially-Managed VoIP Services may fall within the Relevant MVCT Market(s) if they satisfy the three MVCT criteria set out above. ComReg's preliminary view is that such services do not satisfy all three of the criteria, and therefore fall to be excluded from the Relevant MVCT Market(s).
- 5.187 Firstly, an MVCT supplier must have direct access to spectrum as an MNO, or commercially-negotiated access as an MVNO. No Managed or Partially-Managed VoIP service provider appears to satisfy this criterion. Furthermore, while numerous such providers have been assigned geographic or 076 numbers by ComReg, no such provider has been assigned mobile numbers.

5.188 Secondly, an MVCT supplier must have the capacity to set or control MTRs. According to the openeir Switched Transit Routing and Price List (STRPL), no VoIP service provider currently levies an MTR.

5.189 Accordingly, VoIP Service Providers do not have mobile number assignments, and do not levy MTRs. On the basis of the above analysis, ComReg is of the preliminary view that the competitive conditions underlying the provision of MVCT using Managed or Partially-Managed VoIP technologies is not comparable to the provision of MVCT services using PSTN technology. It is therefore proposed that MVCT provided over Managed and Partially-Managed VoIP technology be excluded from the Relevant MVCT Markets.

**(ii) Unmanaged VoIP Services**

5.190 As set out in paragraph 5.88 above, ComReg is of the preliminary view that calls originated *and* terminated on an Unmanaged VoIP service are not in the Relevant FVCT Market. Applying this analysis to the MVCT Market *mutatis mutandis*, ComReg is of the preliminary view that calls originated and terminated on Unmanaged VoIP services are not in the Relevant MVCT Market.

5.191 Pursuant to the *Numbering Conditions of Use*, rights of use for mobile numbers may only be granted to MNOs or MVNOs. Accordingly, an OTT Unmanaged VoIP Service Provider may not make use of mobile numbers unless it has been first authorised as an MNO or MVNO.

5.192 A further consideration in respect of OTT Unmanaged VoIP is the possibility of OTT bypass, whereby a call intended to be completed by means of MVCT by an MSP is, instead, completed on the OTT's platform. In this way, the 'intended' terminating Service Provider does not provide the termination service and cannot charge a termination fee.

5.193 The underlying premise of OTT bypass is that it is an interference in the intended interconnection of a call between an originating Service Provider and a terminating MSP (and, where required, a transit operator) by an OTT operator which is not entitled to terminate the call. An OTT operator, in completing a call initiated on a fixed or mobile telephone does not, in ComReg's preliminary view, provide a MVCT service for the purposes of this Consultation for the following reasons, as set out in detail at paragraph 5.162 above:

- The OTT provider does not set and control the MTR for providing such a service – and no such OTT provider is currently authorised by ComReg to do so, or listed on the openeir STRPL as providing an MVCT service in return for an MTR charge;
- The OTT provider does not control the called party's mobile number. ComReg has not assigned any mobile number ranges to an OTT provider nor, to the best of ComReg's knowledge, have the Rights of Use to any such number ranges been transferred to an OTT provider; and

- The OTT provider does not have direct access to spectrum for the purposes of completing incoming calls, nor has it concluded MVNO arrangements (to the best of ComReg's knowledge) with any MNO.

**Preliminary Conclusion on VoIP technology**

5.194 ComReg's preliminary view is that calls made on Managed, Partially-Managed or Unmanaged VoIP services fall outside the relevant market where no MVCT service is required, and no MTR is levied.

**Is MVCT using fixed technology in the same relevant market as MVCT using traditional voice technology?**

5.195 A development since ComReg's previous market review in 2007 has been the development of fixed-mobile convergence, whereby voice services are delivered using elements of both fixed and mobile telephony. As set out at paragraph 5.94 above, call termination delivered via mobile technology in respect of calls to end users at a fixed location has been increasingly identified by NRAs in other Member States as part of their Relevant FVCT Market(s).

5.196 However, while voice calls to a Geographic Number may be picked up on a mobile device, the converse does not necessarily follow: operators do not offer the facility for a voice call to a mobile number to be picked up on a Geographic Number. In respect of call answering – and, therefore, of call termination – fixed-mobile convergence tends to be unidirectional.

**Preliminary Conclusion on fixed technology**

5.197 Accordingly, it is ComReg's preliminary view that it is, at this stage, unnecessary to further consider whether MVCT using fixed technology in the same relevant market as MVCT using traditional voice technology, given that this form of fixed-mobile convergence does not appear to currently be offered by Service Providers. However, ComReg recognises that it is possible that fixed-mobile convergence may in future allow for the completion of calls to mobile numbers by means of fixed technology. In that eventuality, ComReg would ensure that it takes an approach which is consistent with its appraisal of fixed-mobile convergence as it applies to the completion of calls to Geographic Numbers, and which is described in detail in paragraph 5.94 above.

**Preliminary Conclusion on Candidate MVCT Product Market**

5.198 Having regard to the above, ComReg's preliminary view is that the candidate MVCT product market, being the starting point from which the issue of any effective wholesale substitutes is considered, is one which:

- involves the provision of MVCT for the purpose of completing incoming voice calls to subscribers' mobile numbers that have been assigned to an MSP; and

- involves interconnection and is provided by a MSP (irrespective of whether it is a MNO or an MVNO) which has the ability to set/control the MTR; and
- is technology neutral and does not differ according to whether MVCT is provided over 3G, 4G, 5G, WiFi, or other underlying mobile technology.

5.199 It is ComReg's preliminary view that the candidate MVCT product market consists of:

*“the provision by an MSP of a wholesale MVCT service to other Service Providers for the purpose of terminating incoming voice calls to mobile numbers,<sup>434</sup> and in respect of which that MSP is able to set the MTR”*

5.200 ComReg considers that the product market features proposed above capture the essential characteristics of the narrowest MVCT candidate product market. ComReg now goes on to consider whether this definition should be expanded in light of the availability of effective wholesale demand-side and wholesale supply-side substitutes.

## MVCT Demand-Side Substitution

5.201 In carrying out an MVCT demand-side substitution analysis, ComReg follows the principles already set out at paragraphs 5.101 to 5.104 above in respect of the FVCT demand-side substitutability analysis.

### Retail indirect demand-side substitutes

5.202 Given that the demand for MVCT is derived from demand at the retail level, ComReg has also considered in Section 4 whether there are, or are likely to be, (within the timeframe of this review) any indirect demand-side constraints coming from the retail market that could impact upon the Relevant MVCT Markets. ComReg's preliminary view was that such constraints were unlikely to have a material impact on the Relevant MVCT Markets.

5.203 Given the presence of the CPP principle, at the retail level, called parties are not likely to be sensitive to the costs faced by the calling party, and indirect constraints from the retail market are, therefore, unlikely to sufficiently constrain a SSNIP in MTRs. Accordingly, the cost faced by the calling party is not one of the main reasons considered by consumers when choosing a MSP.<sup>435</sup>

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<sup>434</sup> As defined in the Numbering Conditions of Use as “a Non-Geographic Number that is used as part of a mobile service”.

<sup>435</sup> According to Red C Market Research 71% of domestic mobile phone consumers indicated that they never considered the cost to the calling party of making a call to their mobile number. 2016 Consumer MVCT Market Research, slide 91.

5.204 In particular, ComReg does not consider Unmanaged VoIP services (such as Skype or WhatsApp) to be sufficiently effective wholesale demand-side substitutes for MVCT, having regard to the weakness of the indirect constraint. In Section 4,<sup>436</sup> ComReg considered whether a VoIP-to-VoIP call was likely to pose an effective indirect competitive constraint on MTRs and expressed the preliminary view that it does not.

### **Wholesale demand-side substitutes**

5.205 The pricing by MSPs of MVCT (as reflected both in MSP responses to ComReg SIRs, and in the MTRs set out in the openeir STRPL)<sup>437</sup> suggests that MTRs tend not to respond to pricing stimuli other than regulation. In particular, ComReg notes that all 2012 SMP MSPs currently set their MTRs at the maximum of the permissible regulated rate, although each MSP is free to set its MTRs below this rate, if it wishes to do so. Secondly, ComReg notes that neither Virgin Media nor iD Mobile are currently regulated, and are therefore free to set their MTRs at levels other than the regulated rate.<sup>438</sup> Each of these MSPs levies an MTR in excess of twice the regulated rate, since they are not subject to the requirement to reduce MTRs annually set out in the 2016 MTR Decision.<sup>439</sup>

5.206 The pricing responses of both the 2012 SMP MSPs and the Unregulated MSPs indicate that the levels of MTRs are driven by regulation, rather than by responses to other factors, such as the constraint created by potential demand-side substitutes. Notably, the Unregulated MSPs currently charge higher MTRs than the 2012 SMP MSPs. Over the time period covered by the information sought in the SIRs (2013 to 2016), MTR prices set by the 2012 SMP MSPs remained static at 2.6c per minute, while termination volumes and revenues increased over the same time period.

### **Preliminary View on Wholesale Demand-Side Substitution**

5.207 Having regard to the above, it is ComReg's preliminary view that there are currently no effective or sufficiently immediate demand-side substitutes for MVCT, and this position is not likely to change within the timeframe of this market analysis.

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<sup>436</sup> At paragraph 4.208 to 4.220.

<sup>437</sup> Available online at <http://www.openeir.ie/WorkArea/DownloadAsset.aspx?id=4253>

<sup>438</sup> As set out in greater detail at paragraph 3.76 and 3.77 above.

<sup>439</sup> Mobile Termination Rates: Response to Consultation 14/29 and Supplementary Consultation 15/19 and Decision Document

## MVCT Supply-Side Substitution

5.208 In carrying out an MVCT supply-side substitution analysis, ComReg follows the principles already set out at paragraphs 5.113 to 5.121 above in respect of FVCT supply-side substitutability. In this section, ComReg considers the possibility of supply-side substitution under the following headings:

- Responses to Statutory Information Requests (SIRs);
- Entry of New MSPs; and
- Entry to the MVCT market through Other Technologies.

5.209 Readers should also refer to the analysis set out above at paragraph 5.137 in respect of 'Other considerations', which are common to the supply-side substitutability assessment of both FVCT and MVCT.

### Responses to Statutory Information Requests

5.210 In their responses to SIRs issued by ComReg, none of the respondent MSPs indicated the presence of actual or potential effective wholesale MVCT supply-side substitutes, although Meteor referred to eir's response concerning the potential impact of OTT voice suppliers such as Skype. ComReg's views in this respect are set out at paragraph 5.127 above.

### Entry of New MSPs

5.211 ComReg has considered whether supply-side substitution could also arise from the entry of new (MNO or MVNO) MSPs into the Relevant MVCT Market.

5.212 In the cases of potential new entry by an MSP (either as an MNO or an MVNO), and as with MVCT supply-side substitution from an existing MSP, the same issues regarding access to called party handset/SIM card details (and associated technical issues) and called party sensitivity to cost arise. It is ComReg's preliminary view that such matters are likely to mean that the entry of new MSPs (other than providing termination for subscribers on their network) would not facilitate the provision of an effective alternative to the provision of MVCT by an existing MSP. New entry could not overcome the termination bottleneck of completing an off-net call to a subscriber of an MSP.

5.213 Technical issues associated with the ability to hand over calls may also arise, as may technical difficulties in accessing the called party's handset/SIM card details, given that a new MSP is unable to access the subscriber of another mobile network in order to terminate a call to that subscriber. The called party's lack of sensitivity to the costs faced by the calling party is also a factor which would undermine the degree of any substitution at the retail level.<sup>440</sup>

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<sup>440</sup> For further information, please refer to paragraph 4.85 above.



5.214 Accordingly, ComReg's preliminary view is that supply-side substitution from the entry of new MSPs is unlikely to effectively constrain the price-setting behaviour of a HM supplier of MVCT. ComReg is not, at this time, aware of any future developments that would lead it to alter its view.

## Entry to MVCT through Other Technologies

5.215 Supply-side substitution could also come from other wireless networks such as Wideband Digital Mobile Data Service ('**WDMDS**'), Fixed Wireless Access ('**FWA**'), WiFi or other wireless networks. Such networks could also potentially allow for the provision of MVCT services which directly compete with MSPs currently offering MVCT.

5.216 The three WDMDS licenses granted by ComReg to authorised operators are no longer 'live'<sup>441</sup> and, accordingly, WDMDS does not, or could not potentially, act as an effective supply-side substitute in the absence of one or more WDMDS licence holders.

5.217 WiFi network coverage tends to be localised and geographically limited, particularly in comparison to the coverage provided by MSPs. Moreover, recent moves by Eircom to introduce mobile WiFi calling position WiFi calling as a complement to, rather than a substitute to, traditional mobile technology:

*"eir WiFi Call is a service which allows you to make and receive calls and SMS over any WiFi connection. This should allow customers to make and receive calls and SMS in poor or no mobile coverage areas."*

5.218 In this way, WiFi calling is presented as augmenting existing mobile telephony technology, particularly in areas with poor coverage, and not as presenting a viable supply-side substitute, particularly given that access to WiFi calling will only be available in small localised areas where WiFi access is available. In sharp contrast to traditional mobile coverage, WiFi calling does not afford ongoing coverage while a calling or called party is mobile, and coverage by means of WiFi will cease once the user exits the (relatively small) footprint of the WiFi network to which they are connected.

5.219 While coverage of FWA networks is more extensive than WiFi, they are still limited when compared to that provided by MSPs. Technical issues associated with the ability to hand over calls as mobile subscribers move between WiFi cells or FWA areas may also arise, as may technical difficulties in accessing the called party's handset/SIM card details. The called party's lack of sensitivity to the costs faced by the calling party is also a factor which would undermine the degree of any substitution at the retail level.<sup>442</sup>

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<sup>441</sup> <https://www.comreg.ie/industry/radio-spectrum/licensing/statistics/>

<sup>442</sup> For further information, please refer to paragraph 4.85 above.

- 5.220 In view of the above, potential supply-side substitution from FWA, WiFi or other wireless networks is unlikely to effectively constrain the price-setting behaviour of a HM supplier of MVCT.
- 5.221 ComReg has also considered whether a move to IP interconnection (rather than traditional circuit switched interconnection) would impact on the Relevant MVCT Markets from a supply-side perspective. IP interconnection facilitating a VoIP call, where the call is handed over between MSPs (or between FSPs and MSPs) as a data stream and possibly terminated to a subscriber's IP address (rather than a mobile number<sup>443</sup>), could act as a competitive constraint on the provision of MVCT. However, this would require changes to the existing underlying interconnect arrangements between Service Providers, as well as to the associated charging regime. For example, Service Providers would require network/switching investments and the associated interconnect charging arrangements<sup>444</sup> would need to change and impose a competitive constraint on MVCT charges.
- 5.222 Based on the information available to ComReg, supply-side substitution from IP interconnection (and associated changes to charging arrangements) is not likely to occur within the short to medium term period following the completion of this market analysis and would not be likely to act as an effective competitive constraint on the price setting behaviour of a HM supplier of MVCT. This position may change in future in light of the emergence of such interconnection arrangements and their impact on the Relevant MVCT Market and, should this arise, ComReg will consider its position.<sup>445</sup>

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<sup>443</sup> However, for the avoidance of doubt, the provision of MVCT by an MSP over an IP network that still involves access to the subscriber's mobile number (and for which the MSP has control over the MTR which is levied according to current arrangements) would still be considered to fall within the Relevant MVCT Market, given that it exhibits the same economic bottleneck.

<sup>444</sup> For example, a move to IP interconnection that still involves the imposition of a termination charge may not impose a constraint, given that the economic bottleneck is similar to that which currently exists.

<sup>445</sup> There is no obligation on operators to offer IP voice interconnection in the State. See Table 1 of the BEREC 2015 *Case Studies on IP-based Interconnection for Voice Services in the European Union*, available online at [http://berec.europa.eu/eng/document\\_register/subject\\_matter/berec/reports/5579-case-studies-on-ip-based-interconnection-for-voice-services-in-the-european-union](http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/5579-case-studies-on-ip-based-interconnection-for-voice-services-in-the-european-union)

5.223 ComReg has considered whether a move to IP interconnection (rather than traditional circuit switched interconnection) would impact on the Relevant MVCT Markets from a demand-side perspective. IP interconnection facilitating a VoIP call, where the call is handed over between MSPs (or between MSPs and FSPs) as a data stream and possibly terminated to a subscriber's IP address (rather than a Mobile Number<sup>446</sup>), could act as a competitive constraint on the provision of MVCT. However, this would require changes to the existing underlying interconnect arrangements between Service Providers, as well as to the associated charging regime. For example, Service Providers would require network/switching investments and the associated interconnect charging arrangements<sup>447</sup> would need to change and impose a competitive constraint on MVCT charges.

5.224 Based on the information available to ComReg, supply-side substitution from IP interconnection (and associated changes to charging arrangements) is not likely to occur within the short to medium term period following the completion of this market analysis and would not be likely to act as an effective competitive constraint on the price-setting behaviour of a HM supplier of MVCT. This position may change in future in light of the emergence of such interconnection arrangements and their impact on the Relevant MVCT Market and, should this arise, ComReg will consider its position.

### OTT bypass

5.225 ComReg is aware of the possibility of OTT operators bypassing MVCT, as noted in paragraph 5.122 above. The central premise of this conduct is that an OTT provider terminates calls to a mobile number onto its OTT platform, without the knowledge or agreement of the originating Service Provider, or the 'intended' terminating MSP.

5.226 At the retail level, this means that a mobile subscriber receives an incoming call originated on a Service Provider's network, and intended to be terminated on the subscriber's MSPs' network, *via* their OTT app, rather than *via* their MSP network. At the wholesale level, the call is originated on a Service Provider's network, but is terminated onto an OTT app, rather than onto the intended terminating MSP's network. This means that MVCT is not required, and no MTR is accordingly levied by the 'intended' terminating MSP, as it is bypassed. The 'intended' terminating MSP is therefore deprived of a revenue-generating opportunity to charge an MTR.

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<sup>446</sup> For the avoidance of doubt, the provision of MVCT by an MSP over an IP network that still involves access to the subscriber's Mobile Number (and for which the MSP has control over the MTR which is levied according to current arrangements) would still be considered to fall within the Relevant MVCT Market, given that it exhibits the same economic bottleneck.

<sup>447</sup> For example, a move to IP interconnection that still involves the imposition of a termination charge may not impose a constraint, given that the economic bottleneck is similar to that which currently exists.

5.227 One MSP, [redacted], has indicated to ComReg that there are revenue impacts arising from the existence of OTT services, and that it has experienced 'call hijacking', which is the expression it uses for OTT bypass.<sup>448</sup>

5.228 Viber<sup>449</sup> has been granted a patent which was published in May 2016 in respect of technology which it describes as follows:

*"This invention relates to a method of seamlessly connecting over-the-top and traditional telecommunication network networks including receiving by a telecommunications service provider from a calling party a dialled number of a called party; communicating by the telecommunication service provider the dialled number to an over-the-top service provider; checking by the over-the-top service provider whether it can terminate the call; and communicating the checking results to the telecommunication service provider, wherein the telecommunication service provider is capable of rerouting the call in case of failure in a manner that is seamless to both the calling party and the called party."*<sup>450</sup>

5.229 This operation appears to resemble OTT bypass but has some differences. After it is checked whether Viber can terminate the call, the originating Service Provider is informed of the outcome, so that it can reroute the call in the event that Viber fails to terminate the call.

5.230 ComReg's preliminary view is that this development in itself is unlikely to pose an effective supply-side constraint on termination rate-setting behaviour in the lifetime of this market review. ComReg notes that, in correspondence with MSPs, only one MSP alluded to its customers having experienced OTT bypass. ComReg has not become aware, either through its own research or through the SIR responses, of OTT bypass occurring regularly in the case of Irish RMVC subscribers. Accordingly, it appears that the presence of OTT bypass is limited. ComReg further notes that it has not encountered meaningful evidence that suggests that MSPs are altering their MTRs in response to a potential competitive threat arising from OTT bypass. For these two reasons, ComReg is of the preliminary view that OTT bypass does not, at this stage, represent a credible and effective supply-side substitute for MVCT. The development and commercialisation of such technologies in future may, however, require ComReg to revisit these views.

<sup>448</sup> [redacted] made this comment in a meeting with the ComReg Market Analysis team in May 2016, without providing further details. However, in its September 2016 SIR response, it made no reference to the issue of OTT bypass.

<sup>449</sup> [www.viber.com](http://www.viber.com).

<sup>450</sup> US Patent 9,491,284, available online at <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u=%2Fnetacgi/html%2FPTO%2Fsearch-adv.htm&r=8&p=1&f=G&l=50&d=PTXT&S1=viber&OS=viber&RS=viber>

## Preliminary View on Supply-Side Substitution

5.231 Having regard to the analysis in paragraphs 5.208 to 5.230 above, ComReg's preliminary view is that no effective or sufficiently immediate supply-side substitutes currently exist, or are expected to exist for MVCT. This position is unlikely to change in the lifetime of this market analysis.

## Overall Preliminary Conclusion on MVCT Product Market(s)

5.232 It is ComReg's preliminary view that the wholesale MVCT product market therefore consists of:

*“the provision by an MSP of a wholesale MVCT service to other Service Providers for the purpose of terminating incoming voice calls to mobile numbers,<sup>451</sup> and in respect of which that MSP is able to set the MTR.”*

5.233 ComReg considers that the above definition is sufficiently flexible yet clear enough to identify the economic bottleneck in the MVCT market.

5.234 As noted in paragraphs 5.215 to 5.220 to the extent that other wireless networks (or other similar technologies) could facilitate the offer by a MSP of a wholesale service for the termination of incoming calls to its own subscribers, and having regard to whether they utilise mobile numbers and their ability to determine their own MTRs, such MSPs are likely to face similar abilities and incentives to existing MSPs when setting their actual MTRs.

5.235 As a consequence, it is ComReg's preliminary view that mobile termination offered in these circumstances would likely fall within the wholesale MVCT product definition above. The definition is, therefore, technology neutral and includes MVCT provided over technology including 2G, 3G, 4G, 5G, WiFi, and any other technologies which satisfy the market definition requirements set out above.

## MVCT Geographic Market

5.236 In this subsection ComReg considers the geographic scope of the Relevant MVCT Markets. The European Commission has noted that the relevant geographic market is

*“..... an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring*

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<sup>451</sup> As defined in the Numbering Conditions of Use, a Mobile Number means a non-Geographic Number that is used as part of a mobile service.

*areas in which the prevailing conditions of competition are appreciably different.*<sup>452</sup>

5.237 For similar reasons to the FVCT market, ComReg considers that, given a common pricing constraint and the homogeneity of conditions of competition, the wholesale Relevant MVCT Markets are each likely to be national markets, the boundaries of which are defined by the geographic coverage of each MSP's network. Having considered the responses to ComReg's SIRs, the reasons supporting a national geographic market are that MSPs:

- have national network/service coverage;<sup>453</sup>
- do not differentiate MTRs based on the location<sup>454</sup> of the mobile subscriber, i.e. MTRs are geographically uniform; and
- do not differentiate MTRs based on the underlying network standards deployed in particular geographic locations.

## Termination of calls originated abroad

5.238 In its 2012 MVCT Decision, ComReg stated (at paragraph 5.91) that:

*“ComReg’s position is that each of the wholesale MVCT product markets are defined as follows:*

*“The MVCT product markets consist of the provision by a mobile service provider of a wholesale service to other undertakings for the purpose of terminating incoming voice calls to mobile numbers in respect of which that mobile service provider is able to set the MTR”*

5.239 Footnote 210 in the quote above states:

*“For the avoidance of doubt, the MVCT Consultation noted in paragraph 5.77 that ‘other undertaking’ includes any undertaking, whether this be an undertaking located in the Republic of Ireland or in another jurisdiction.”*

5.240 ComReg considers that the provision of MVCT services by an MSP to its mobile numbers located in the State includes the provision of such services to originating providers in Ireland or abroad, given that the same MVCT service is provided to any service provider from a functional and technical perspective, regardless of their location.

5.241 ComReg has accordingly explicitly defined the Relevant MVCT Market to include termination provided to all other undertakings, regardless of their geographic location.

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<sup>452</sup> European Commission Notice on Market Definition, paragraph 8.

<sup>453</sup> All retail MSPs have coverage to at least 99% of the population and to over [redacted] of the geographic area of the State. MVCT is provided in all these areas.

<sup>454</sup> This includes the location of the calling party or called party.

## Preliminary conclusion on wholesale MVCT geographic market

5.242 It is ComReg's preliminary view that the geographic scope of the Relevant MVCT Markets corresponds to the geographic coverage of each individual MSP's network, bearing in mind that each MSP may offer services on its own network as an MNO or, pursuant to contractual agreement, on an MNO's network, in the case of an MVNO. For the reasons set out above, the extent of this coverage is, in each case, national.

## Overall preliminary conclusion on the Wholesale Relevant MVCT Markets

5.243 Having regard to the above analysis, it is ComReg's preliminary view that the Relevant MVCT Markets consist of:

*“the provision by a MSP of a wholesale MVCT service to other Service Providers for the purpose of terminating incoming voice calls to mobile numbers,<sup>455</sup> and in respect of which that MSP is able to set the MTR.*

*The geographic scope of the Relevant MVCT Market(s) corresponds to the geographic coverage of each individual MSP's network.”*

5.244 For the avoidance of doubt, 'other Service Provider' above includes any undertaking,<sup>456</sup> whether this be an undertaking located in the State or in another jurisdiction.

5.245 Having regard to the above market definition, it is ComReg's preliminary view that the following separate markets exist for the purposes of the present MVCT market review:

- Wholesale MVCT supplied by eir Mobile, a business name of eircom Limited;
- Wholesale MVCT supplied by iD Mobile (a business name of Carphone Warehouse Ireland Mobile Limited);
- Wholesale MVCT supplied by Lycamobile Ireland Limited;
- Wholesale MVCT supplied by Tesco Mobile Ireland Limited;

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<sup>455</sup> As defined in the Numbering Conditions of Use, a Mobile Number means a non-Geographic Number that is used as part of a mobile service.

<sup>456</sup> Pursuant to Regulation 4 of the Authorisation Regulations (European Communities (Electronic Communications Network and Services) (Authorisation) Regulations 2011 (S.I. No. 335 of 2011).

- Wholesale MVCT supplied by Three Ireland (Hutchison) Limited;<sup>457</sup>
- Wholesale MVCT supplied by Virgin Media Ireland Limited; and
- Wholesale MVCT supplied by Vodafone Ireland Limited.

5.246 Given the definition of the Relevant MVCT Markets, neither Postfone nor Blueface fall within the scope of a Relevant MVCT Market, given that they do not charge, nor do they currently have the ability to set, an MTR. However, were they to do so (or have the ability to do so), then ComReg considers that there is a strong case to be made that Postfone and Blueface would fall within the definition of the Relevant MVCT Market.

5.247 ComReg intends to keep the Relevant MVCT Markets under review, following the adoption of the Decision arising from this Consultation, having regard to technological and other developments which may lead to the emergence of any potentially effective demand-side and/or supply-side substitutes.

**Q. 5. Do you agree with ComReg's preliminary conclusions on the wholesale MVCT product market and geographic market definition assessment? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

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<sup>457</sup> ComReg considers that the provision of wholesale MVCT by Liffey Telecom Ltd is included in the provision of wholesale MVCT by Three, as both Three Ireland (Hutchison) Limited and Liffey Telecom Ltd form part of the broader CK Hutchison Holdings Limited group. ComReg notes that arrangements concerning Liffey Telecom may change following the clearance by the CCPC in July 2017 of Tesco Ireland Holding's acquisition of Three's ownership share in Tesco Mobile Ireland. ComReg also considers that 48, as a business name of Three Ireland Services (Hutchison) Limited, with no separate legal identity, falls within the definition of Three Ireland Services (Hutchison) Limited, set out in the draft Decision Instrument.



## 6 Competition Analysis and Assessment of Significant Market Power in Relevant FVCT Markets and Relevant MVCT Markets

### Framework for Assessing SMP

6.1 Having defined the Relevant Termination Markets in Section 5, ComReg must determine whether each Relevant Termination Market is effectively competitive, having regard to whether or not any of the Service Providers operating on those relevant markets has Significant Market Power ('SMP').

6.2 The European Regulatory Framework for electronic communications networks and services has aligned the concept of SMP with the competition law definition of dominance first advanced by the European Court of Justice in *United Brands v. Commission*:<sup>458</sup>

*“The dominant position referred to [by Article 102 of the Treaty on the Functioning of the European Union] relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers.”(EMPHASIS ADDED)*

6.3 Article 14(2) of the Framework Directive<sup>459</sup> effectively mirrors this definition of dominance, stating that:

*“An undertaking shall be deemed to have Significant Market Power if, either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers.” (EMPHASIS ADDED)*

6.4 Arising from this definition, ComReg assesses whether SMP exists on the Relevant Termination Markets in accordance with the framework established by the European Commission. The European Commission's SMP Guidelines, of which ComReg is required to take utmost account,<sup>460</sup> refer to a range of criteria that may be considered by NRAs when seeking to establish whether an undertaking has SMP on a relevant market.

<sup>458</sup> Case 27/76 *United Brands v European Commission* [1978] ECR 207, Paragraph 65.

<sup>459</sup> Which is transposed into Irish law by means of Regulation 25(1) of the Framework Regulations.

<sup>460</sup> In accordance with Regulation 25(2) of the Framework Regulations.

6.5 The SMP Guidelines also note that very large market shares give rise to a presumption of dominance:

*“According to established case-law, very large market shares - in excess of 50% - are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position. An undertaking with a large market share may be presumed to have SMP, that is, to be in a dominant position, if its market share has remained stable over time.”<sup>461</sup>*

6.6 Market shares in excess of 50% give rise to a rebuttable presumption of SMP. However, the SMP Guidelines also state<sup>462</sup> that the existence of a high market share alone is not sufficient to establish the existence of SMP; rather it means that the undertaking concerned might be in a dominant position and this needs to be considered alongside other potentially relevant criteria for assessing the existence of SMP, including:

- Overall size of the undertaking;
- Control of infrastructure not easily duplicated;
- Technological advantages or superiority;
- Absence of, or low, countervailing buyer power;
- Easy or privileged access to capital markets/financial resources;
- Product/services diversification (e.g. bundled products or services);
- Economies of scale;
- Economies of scope;
- Vertical integration;
- A highly developed distribution and sales network;
- Absence of potential competition; and
- Barriers to expansion.

6.7 The SMP Guidelines also state that:

*“A dominant position can derive from a combination of the above criteria, which, taken separately, may not necessarily be determinative”<sup>463</sup>*

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<sup>461</sup> Paragraph 75 of the SMP Guidelines.

<sup>462</sup> Paragraph 78 of the SMP Guidelines.

<sup>463</sup> Ibid.

## Approach to Assessing SMP in the Relevant Termination Markets

6.8 ComReg's approach to assessing whether or not an undertaking has SMP in the Relevant Termination Markets is to carry out a forward-looking analysis on the basis of existing and likely future market conditions<sup>464</sup> and to consider a range of factors that are relevant to these markets. Many of the factors identified in paragraphs 6.6 and 6.7 above, while presented separately, may in fact be interrelated, and all available evidence is considered as a whole before a determination on SMP is made.

### Relevant SMP Criteria

6.9 For the purposes of the analysis of the Relevant Termination Markets, ComReg considers that the following criteria are of most relevance to the assessment of SMP:

- (a) Market shares;
- (b) Control of infrastructure not easily duplicated;
- (c) Absence of potential competition; and
- (d) Absence of, or low, countervailing buying power.

6.10 ComReg also considers that factors such as historical and likely pricing behaviour are relevant considerations.

6.11 Other factors identified in paragraph 6.6 above which could be used to indicate the potential market power of an undertaking have been considered but, for the reasons set out in Annex 4, are deemed to be of limited relevance for the purposes of the SMP assessments.

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<sup>464</sup> Paragraph 20 of the SMP Guidelines states that "In carrying out the market analysis ..... NRAs will conduct a forward looking, structural evaluation of the relevant market, based on existing market conditions. NRAs should determine whether the market is prospectively competitive, and thus whether any lack of effective competition is durable, by taking into account expected or foreseeable market developments over the course of a reasonable period. The actual period used should reflect the specific characteristics of the market and the expected timing for the next review of the relevant market by the NRA. NRAs should take past data into account in their analysis when such data are relevant to the developments in that market in the foreseeable future."

## Approach to Existing Regulation

6.12 In markets subject to *ex ante* SMP regulation an undertaking's behaviour may be restricted by way of existing SMP regulatory controls. It is accordingly necessary to consider the potential ability of the undertaking to exert market power absent *ex ante* SMP regulation<sup>465</sup> in the market concerned. To do otherwise might lead to a circular finding of no SMP on the basis of SMP regulatory remedies that would cease to exist following a market analysis and, in the absence of which, the undertaking may be able to exert market power. In the context of an SMP assessment of the specific Relevant Termination Market, the key hypothetical questions are:

- (a) How the Service Provider in question would be likely to behave in the markets being assessed if it were free from current or potential SMP regulatory constraints; and
- (b) How the Service Provider in question would be likely to behave in the market being assessed, having regard to the existence of any SMP and other obligations in related markets which could impact on the specific Relevant Termination Market.

## Assessment of SMP

6.13 Each of the relevant factors identified above are considered in detail below. Given an inherent degree of overlap, ComReg proposes to combine its assessment of these factors under the following three broad headings:

- (a) **Existing competition in the Relevant Termination Markets** - factors such as market shares, relative strength of existing competitors and pricing behaviour (discussed in paragraphs 6.15 to 6.21 below).
- (b) **Potential competition in the Relevant Termination Markets** - factors such as control of infrastructure not easily duplicated, barriers to entry in the Relevant Termination Markets, and the overall strength of potential competitors (discussed in paragraphs 6.22 to 6.27 below).
- (c) **Strength of any countervailing buyer power ('CBP')** - the constraints (if any) imposed by any strong buyers of WVCT on the competitive behaviour of WVCT suppliers (discussed in paragraphs 6.28 to 6.224 below).

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<sup>465</sup> However, while discounting SMP regulation in the market concerned, following the Modified Greenfield Approach, other obligations (such as relevant SMP remedies existing in other markets, or obligations relating to general consumer protection or interconnection) are considered.

- 6.14 Noting that there are strong similarities in the characteristics and nature of competition in the Relevant FVCT Markets and the Relevant MVCT Markets, ComReg generally assesses these potential constraints on the exercise of SMP across both sets of markets (collectively, the '**Relevant Termination Markets**'), except where it is appropriate to separately assess constraints arising only, or predominantly, on the exercise of SMP in Relevant FVCT Markets or Relevant MVCT Markets.

## **Existing Competition in the Relevant Termination Markets**

- 6.15 In this subsection ComReg considers such factors as the relative strength of any existing competitors, market shares, and pricing.

### **Existing Competition**

- 6.16 In Section 5, the Relevant Termination Markets<sup>466</sup> were defined, such that each Service Provider identified is the sole supplier of WVCT to its subscribers. This means that, by definition, Service Providers do not face existing competition on these markets. In Section 4, ComReg also held that the strength of any indirect constraints from the retail markets were not likely to be sufficient to result in the development of effective competition in the Relevant Termination Markets.<sup>467</sup> ComReg considers that these conditions are likely to persist over the period covered by this market review.

### **Market Shares**

- 6.17 Given the relevant market definitions set out in Section 5, each of the Service Providers identified in paragraphs 5.157 and 5.245 has a 100% market share in the Relevant Termination Market within which they operate, whether measured by call termination volumes or call termination revenues. These high market shares have been maintained over time. There are currently no effective competitors to the Service Providers operating in each of the Relevant Termination Markets, and ComReg's preliminary view is that this position is likely to persist over at least the medium term.

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<sup>466</sup> As set out at paragraphs 5.155 and 5.243 above.

<sup>467</sup> As set out at paragraphs 4.246 to 4.248 above.

## Pricing Behaviour

- 6.18 In the absence of any existing (as discussed at paragraphs 6.221 to 6.224 below) effective competitors in the Relevant Termination Markets, ComReg sets out its analysis of FVCT and MVCT pricing behaviour in the discussion on CBP below.<sup>468</sup> In the absence of any existing or potentially effective demand-side competitive constraints, the purpose of this pricing analysis is to assess whether any strong buyers have been, or are likely to be, in a position to effectively constrain the termination rates set by individual Service Providers operating in their Relevant Termination Markets, absent regulation.
- 6.19 ComReg is of the preliminary view that, absent regulation, Service Providers' pricing of WVCT would not be credibly restricted to the extent that it would prevent them from behaving, to an appreciable extent, independently of their competitors, customers and, ultimately, consumers.

## Preliminary conclusion on existing competition

- 6.20 Having regard to the market definition analysis carried out in Section 5 and the assessment above, it is ComReg's preliminary view that, absent regulation, over the medium term:
- High market shares in the Relevant Termination Markets are likely to persist;
  - Threats from existing wholesale competition or indirect retail constraints are not likely to pose an effective competitive constraint in the Relevant Termination Markets; and
  - Service Providers supplying WVCT accordingly have, and will likely continue to have, the power to set their termination rates independently of each other and any competitive constraints.
- 6.21 As noted earlier, high and persistent market shares, while a strong indicator of SMP, are not, in themselves, solely determinative as to whether an undertaking has SMP. ComReg's preliminary view is that the high market shares and existing levels of competition are strongly suggestive that, individually, each Service Provider has SMP on its Relevant Termination Market. However, ComReg now considers whether other relevant factors might potentially diminish or undermine this presumption of SMP.

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<sup>468</sup> As set out at paragraphs 6.221 to 6.224 below.

## Potential Competition in the Relevant Termination Markets

- 6.22 ComReg's assessment of potential competition in the Relevant Termination Markets considers whether entry is likely over the medium term to such an extent that it would constrain a Service Provider's ability to act, to an appreciable extent, independently of its competitors, customers or consumers. The threat of market entry, where it is credible, probable and timely, may be a disciplining factor which impacts the behaviour of Service Providers in the Relevant Termination Markets.
- 6.23 In considering the potential for entry into the Relevant Termination Markets, ComReg has assessed the factors related to current market conditions set out at paragraph 6.13 above:
- (a) Control of infrastructure not easily duplicated,
  - (b) Barriers to entry in the Relevant Termination Markets, and
  - (c) Overall strength of potential competitors.
- 6.24 Entry to the Relevant Termination Markets could hypothetically come from a number of sources, including:
- (a) Existing Service Providers other than the called party's Service Provider;
  - (b) New Service Providers; and
  - (c) Entry through other technologies (including, but not limited to, other technologies such as fixed wireless access, WiFi and VoIP).
- 6.25 The market definition assessment carried out in Section 5<sup>469</sup> considered the possibility of these options emerging as supply-side substitutes in a short timeframe (within a year), and at negligible cost, and concluded that such entry was unlikely to impose an effective competitive constraint in this context. Demand-side substitutes and indirect constraints from the retail market were also considered to be insufficient to impact the definition of the Relevant Termination Markets.
- 6.26 ComReg has revisited the above analysis, having regard to possible developments over the medium term (i.e. over at least the next two years following the completion of this market analysis) which could materially impact the SMP assessment. ComReg remains of the preliminary view that, given the high and non-transitory barriers to entry in each of the Relevant Termination Markets arising from:

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<sup>469</sup> As set out at paragraphs 5.125 to 5.126, and 5.211 to 5.214 above.

- (a) The control of resources necessary for termination (such as numbering ranges, routing and subscriber access);
- (b) The control of infrastructure (such as telecommunications networks) which is not easily replicable, or which requires high levels of capital expenditure prior to market entry; and
- (c) The emergence of effective potential competition within this time horizon by means of current or emerging technologies being unlikely to sufficiently constrain competitive behaviour and, therefore, the exercise of SMP.

## **Preliminary conclusion on potential competition in the Relevant Termination Markets**

6.27 ComReg's preliminary view is that potential competition in each of the Relevant Termination Markets is unlikely to provide a sufficiently effective competitive constraint on the Service Providers operating within these markets and, consequently, does not undermine the presumption that, individually, each of the Service Providers listed in paragraphs 5.157 and 5.245 has the power to behave, to an appreciable extent, independently of its competitors, customers and consumers.

## **Countervailing Buyer Power**

6.28 In this section ComReg considers whether bargaining power on the buyer side of the Relevant Termination Markets is likely to impose a sufficiently effective competitive constraint on the termination rate-setting behaviour of WVCT suppliers, such that it would credibly restrict their power to behave, to an appreciable extent, independently of their competitors, customers and consumers.

6.29 ComReg examines whether a sufficient level of CBP exists such that WVCT suppliers are unable to sustain termination rates that are above the competitive level (i.e. the effective exercise of CBP results in termination rates being constrained to levels that would be achieved in a competitive market outcome).

6.30 The effectiveness of CBP is likely to be highly dependent on the strength of the bargaining power of the purchaser in termination rate negotiations. In this regard, the Explanatory Note to the 2014 Recommendation notes<sup>470</sup> with respect to WVCT markets that:

*“A market definition for call termination on each network would imply that currently each network operator is a single supplier on its respective termination market, which suggests that each operator has a 100% market share. While a 100% market share provides a very strong presumption of SMP, in accordance with competition law principles, a finding that there is no SMP may occur if there is sufficient countervailing buyer power, which would render any non-transitory*

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<sup>470</sup> Page 32 of Explanatory Note to the 2014 Recommendation.



*price increase unprofitable. This has been taken into account by the Explanatory Note to the 2007 Recommendation, which stated that the fact that each operator is a monopolist on its own network does not automatically mean that it has Significant Market Power, and that the extent to which countervailing buyer power effectively constrains the ability of terminating operators to charge excessive termination charges has to be assessed on a case-by-case basis in the context of the SMP assessment. As noted in the Explanatory Note to the Termination Rates Recommendation, termination being a situation of two-way interconnection where two wholesale termination prices have to be negotiated, these could potentially be used as leverage in the negotiations. This would suggest that each terminating operator is facing a certain degree of bargaining power from its counterparts. Such reasoning could eventually lead to rates being set at a close-to-costs level among symmetrical networks. This type of agreement could however lead to excessive pricing on the termination markets, thus still allowing for anti-competitive behaviour in the form of e.g. foreclosure or collusion.”*

6.31 The European Commission’s 2009 Enforcement Priorities<sup>471</sup> are also informative on CBP in competition assessments, stating (at paragraph 18) that:

*“Competitive constraints may be exerted not only by actual or potential competitors but also by customers. Even an undertaking with a high market share may not be able to act to an appreciable extent independently of customers with sufficient bargaining strength. Such countervailing buying power may result from the customer’s size or their commercial significance for the dominant undertaking, and their ability to switch quickly to competing suppliers, to promote new entry or to vertically integrate, and to credibly threaten to do so. If countervailing power is of a sufficient magnitude, it may deter or defeat an attempt by the undertaking to profitably increase prices. Buyer power may not, however, be considered a sufficiently effective constraint if it only ensures that a particular or limited segment of customers is shielded from the market power of the dominant undertaking.”*

6.32 In light of the above, it is ComReg’s preliminary view that effective CBP results from customers being of sufficient size or importance to the seller, and having the ability to credibly switch to alternative sources of supply, such that it deters the seller from profitably increasing its prices. It is also of note that effective CBP has a broader market impact and does not only result in a limited segment of customers benefiting from better terms and conditions.

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<sup>471</sup> Communication from the Commission — Guidance on the Commission’s enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings (2009/C 45/02) (the ‘2009 Enforcement Priorities’). Available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:045:0007:0020:EN:PDF>.

## Framework for CBP Assessment

- 6.33 In assessing CBP, ComReg takes account of the **regulatory context** and the **economic framework** within which a market operates, as well as any other criteria relevant to the CBP assessment. ComReg describes its CBP assessment methodology in greater detail at Annex 10.

### Regulatory Context for CBP Assessment

- 6.34 In carrying out an assessment of CBP it is necessary to consider the impacts of existing or potential future regulation. In this regard, ComReg assesses:
- (a) Existing SMP regulation in the Relevant Termination Market under assessment;
  - (b) Existing SMP regulation in markets other than the Relevant Termination Market under assessment; and
  - (c) Other non-SMP regulation, and the role of dispute resolution.

### Economic Framework for CBP assessment

- 6.35 Assessing the presence or absence of effective CBP involves examining whether sufficient buyer power may be exercised, such that the WVCT supplier cannot behave, to an appreciable extent, independently of its customers, and is therefore unable to sustain a termination rate above the level that would pertain in a competitive market. As noted earlier, the concept of CBP is not an absolute one, and some degree of CBP may be present in termination rate negotiations between parties. Given that termination rate negotiations are usually bilateral in nature, it is reasonable to assume that the level of any CBP exercised will vary between parties, having regard to their circumstances.
- 6.36 ComReg also considers other factors which are relevant to the economic framework according to which ComReg measures relevant bargaining dynamics in the demand for and supply of WVCT. Such factors include:
- (a) The degree to which a purchaser of WVCT represents an important outlet for the seller;
  - (b) The degree to which a purchaser of WVCT has alternative supply options and is a well-informed and price sensitive buyer; and
  - (c) Evidence of CBP in price-setting behaviour and actual negotiations.
- 6.37 The above factors are described in greater detail in Annex 10.

## Assessment of Effectiveness of CBP in Practice

- 6.38 In the following section, ComReg assesses whether, in respect of Relevant Termination Markets, there is any evidence that purchasers of WVCT have exercised effective CBP to prevent a Service Provider from acting, to an appreciable extent, independently of its wholesale customers. ComReg examines the possibility of the exercise of CBP having regard to the following considerations:

- (a) Service Provider responses to the 2016 SIRs, in which respondents were asked whether they had experienced CBP, along with meetings with Service Providers;
  - (b) The size of the purchaser of WVCT, and its relative importance to the seller;
  - (c) Whether credible alternative sources of WVCT exist for a purchaser who wishes to exert CBP;
  - (d) The sensitivity of the purchaser to the price of WVCT, and to changes in that price; and
  - (e) Evidence of price-setting behaviour, and negotiations between Service Providers.
- 6.39 In general, a firm will be better able to exert its CBP, the fewer constraints it faces in attempting to do so. In this respect, ComReg notes that the 2007 SMP FSPs are subject to a range of regulatory obligations in respect of transparency, non-discrimination and price control, while Eircom is further subject to obligations in respect of access, cost accounting and accounting separation. Similarly, the 2012 SMP MSPs are subject to a range of regulatory obligations in respect of access, transparency, non-discrimination and price control.
- 6.40 Unregulated Service Providers are not bound by these obligations, and may be therefore, in principle, better positioned to exert CBP. This is because, in exerting CBP vis-à-vis WVCT providers, they do not face the constraints imposed by existing SMP regulation. Accordingly, an Unregulated Service Provider has greater freedom of action, should it wish to exert its CBP by means of retaliatory action against a WVCT provider (say through increasing its own termination rates or denying access to WVCT or other services). However, all Service Providers, irrespective of their SMP status have a general regulatory requirement following from the Access Directive to interconnect in order to ensure end-to-end interconnectivity and interoperability of service, where economically and technically feasible. In the analysis below, ComReg assesses whether Unregulated Service Providers have a greater ability to exert CBP than SMP Service Providers.

- 6.41 Furthermore, the European Commission clarified in its 2005 veto decision<sup>472</sup> regarding the German NRA's proposal not to designate 53 alternative FSPs with SMP that, from a methodological viewpoint, it is not appropriate to exclude regulatory obligations that exist independently of an SMP finding on the market under consideration, but that can have an impact on that finding of SMP. In that case, the European Commission noted that any existing/proposed SMP regulation on the Relevant FVCT Market of the incumbent FSP, together with any other regulatory obligation imposed on a market other than the one for which the SMP assessment is being conducted, must be taken into account when carrying out the competition assessment for the alternative FSPs.

### **Assessment of CBP in Relevant FVCT Markets**

- 6.42 ComReg assesses whether there is evidence that any purchaser of FVCT has exercised effective CBP, having regard to the five factors set out in paragraph 6.38 above. ComReg examines whether Service Providers are in a position to exercise sufficient CBP over FSPs operating within a Relevant FVCT Market to prevent such an FSP from acting, to an appreciable extent, independently of its wholesale customers.

### **Responses to Statutory Information Requests and meetings**

- 6.43 ComReg received responses to the 2016 SIRs it issued from 21 FSPs. No FSP respondent indicated that it had experienced CBP, either as a supplier or as a purchaser of FVCT. Some – though not all - respondents suggested that, since FTRs charged by the 2007 SMP FSPs are regulated, all operators accept these FTRs, and have no opportunity to apply CBP. No respondent indicated that it had observed the exercise of CBP by Unregulated FSPs.

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<sup>472</sup> For example, in its first round review of the fixed termination markets (case DE/2005/0144) the German NRA considered that 53 alternative FSPs did not have SMP for FVCT on their respective networks, despite their 100% market share. In the NRA's view, the fixed incumbent Deutsche Telekom AG had countervailing buyer power which did not allow the alternative FSPs to behave independently to an appreciable extent. The European Commission concluded, however, that the evidence provided by the German NRA did not support its finding of an absence of SMP for each alternative FSP and therefore vetoed the NRA's notified draft measures relating to the 53 alternative FSPs. In a subsequent notification (case DE/2005/0239) the German NRA designated all alternative FSPs with SMP on the market for call termination on their individual networks. This SMP finding has been confirmed again in recent notifications - in case DE/2008/0843 where the German NRA proposed to designate 58 FSPs with SMP in their Relevant FVCT Markets and case DE/2012/1359 where it again proposed to designate 57 FSPs with SMP.

- 6.44 ComReg notes the responses of the FSPs, which appear to suggest that any CBP is ineffective in terms of its ability to constrain an FSP in setting its FTRs above the level consistent with a competitive market outcome. In the case of those SMP FSPs subject to a price control obligation of cost orientation pursuant to the 2007 FVCT Decision, as amended by the 2012 Pricing Decision, some respondents suggested that the exercise of CBP was, in effect, unnecessary, as regulation had served to restrict the capacity of the SMP FSPs to price their FTRs as they wished.

### **Size of the buyer and its relative importance to the seller**

- 6.45 A buyer is likely to be better positioned to exert CBP if it is large in absolute or relative terms, and if it is a relatively large customer of the seller. ComReg assesses whether a Service Provider which is an important customer of an FVCT supplier is, in principle, capable of leveraging its importance to exercise CBP.
- 6.46 If a Service Provider decided to stop sending off-net calls to a FSP for termination (i.e. to exercise its CBP by ceasing to pay the FTRs demanded by that FSP for terminating the off-net call), this would reduce the consumer welfare of the subscribers of both Service Providers, as fewer calls between the subscribers would be completed. The magnitude of the reduction in consumer welfare depends on, *inter alia*, the size of each Service Provider (as measured by subscriber numbers and revenues), their relative importance to one another and the propensity for subscribers of the respective Service Providers to call each other. In respect of FVCT, and in view of the fact that large subscriber bases can lead to increased network externalities,<sup>473</sup> it is likely that FSPs would be reluctant to exercise their CBP in this manner, and that this reluctance would be pronounced in respect of FSPs operating larger networks (based on subscriber numbers), such as Eircom.<sup>474</sup>
- 6.47 As set out in ComReg's QKDR for Q2 2017 (at Figure 2.2.3),<sup>475</sup> 39% of all retail fixed line subscriptions were held with Eircom. Eircom's share of retail fixed line subscriptions since the 2012 FVCT Consultation has declined from 56% to 39%, while the market share of Virgin Media has increased from 17% to 24%. Accordingly, while Eircom is still the largest provider of retail fixed line subscriptions, its relative importance to purchasers of FVCT services may have declined over the past five years, as competitors have gained market share.

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<sup>473</sup> Network externalities occur when, as the number of users on a network increases, the value of that network to other users increases.

<sup>474</sup> Eircom is subject to SMP regulatory obligations in respect of its provision of end-to-end connectivity by means of its Wholesale SV service, as set out in the 2011 Decision, the 2015 FACO and Transit Decision, and as proposed in this Consultation.

<sup>475</sup> ComReg Quarterly Key Data Report, Q1 2017, at page 20.

- 6.48 In determining the sizes of buyers and their relative importance to the seller, ComReg, as an illustrative example, measured purchases of FVCT from Eircom by domestic Service Providers. These data identify the largest purchasers of FVCT from the largest FSP, measured by retail fixed line subscriptions. The larger the share of FVCT a given Service Provider purchases from Eircom, the more likely it is that that Service Provider may be in a position to exert its CBP vis-à-vis Eircom. Conversely, a Service Provider which accounts for a small proportion of FVCT purchases from Eircom is unlikely to exert effective CBP.
- 6.49 Taking account of information provided in response to the 2016 SIRs, most Service Providers are unlikely to be of sufficient importance to Eircom to sufficiently constrain its ability to delay or impede FVCT access or to set FTRs above an efficient level absent regulation, as set out in Table 16 below:

**Table 16: % of domestic mobile and off-net fixed minutes terminated to Eircom's fixed network, H1 2016 [REDACTED]**

Service Provider	% of calls terminated
<b>Domestic FSPs</b>	
BT	[REDACTED]%
Virgin	[REDACTED]%
Vodafone	[REDACTED]%
Imagine	[REDACTED]%
Digiweb	[REDACTED]%
Other OAOs	[REDACTED]%
<b>Domestic MSPs</b>	
Vodafone	[REDACTED]%
Meteor / Eir Mobile	[REDACTED]%
Three	[REDACTED]%

Source: Eircom 2016 SIR response

- 6.50 [REDACTED] terminates the largest percentage of minutes on Eircom's network ([REDACTED]). According to its SIR response, approximately [REDACTED]% of [REDACTED] incoming traffic is transit traffic, which [REDACTED] transits on behalf of other Service Providers who are not directly interconnected with Eircom. Despite its large share of FVCT purchases from Eircom, it is unlikely that [REDACTED] is in a position to exercise CBP. This is due to the absence of effective, or sufficiently immediate, demand-side or supply-side substitutes for termination of calls to Eircom subscribers.<sup>476</sup> [REDACTED] is therefore unlikely to be able to credibly leverage its CBP, as, in the short term, it is obliged to purchase FVCT services from Eircom when it seeks to terminate a call on Eircom's network [REDACTED].

<sup>476</sup> See discussion below at paragraphs 6.53 to 6.58.

- 6.51 Given that [redacted] terminates the largest percentage of minutes on Eircom's network, but is unable to credibly exercise its CBP, it follows that it is likely that other Service Providers which terminate lower percentages of traffic on Eircom's network are even less likely to be able to credibly exercise CBP. ComReg is, therefore, of the preliminary view that Eircom's market power (including its ability to delay or impede access to FVCT, or to set FTRs at an inefficiently high level) would be unlikely to be constrained to an appreciable extent by an individual buyer of its FVCT services.
- 6.52 ComReg's overall preliminary view is that, even where a Service Provider which purchases FVCT from an FSP is relatively important to the FVCT supplier, due to the amount of minutes it terminates (and therefore the amount of FVCT it must purchase), it is unlikely that such a Service Provider could leverage its size and relative importance to the seller of FVCT in seeking to credibly exercise CBP.

### **Credible alternative sources of FVCT supply for the buyer**

- 6.53 ComReg has examined whether a buyer of FVCT could exercise its CBP by credibly threatening to switch to alternative sources of FVCT. This threat would be most credible where there would be no (or only minimal) disturbances to outgoing connections for the FVCT purchaser and its customers.
- 6.54 Multiple networks coexist, and these networks need to connect to facilitate off-net calling. This means that Service Providers cannot provide a full service to their subscribers unless they purchase FVCT from other FSPs. Service Providers would likely face pressure, in the form of an increased likelihood of switching to other, better-connected, Service Providers, from their own customers if they discovered that they were unable to make calls to FSP networks. This would be particularly true in respect of the networks of larger Service Providers.
- 6.55 Instead of interconnecting directly with an FSP, a Service Provider could accomplish FVCT by entering into a transit arrangement with a third-party Service Provider, which terminates the call to the called party's network. However, the originating Service Provider then incurs the cost of both termination and an additional cost of transit, as the provider of transit services charges the originating Service Provider a fee for delivering the call from the originating Service Provider's network to the terminating Service Provider's network. Absent regulation, such a course of action is only likely to be attractive where the combined costs of transit and termination are less than the costs of purchasing FVCT directly from the FVCT supplier via direct interconnection.

- 6.56 While indirect interconnection via third-party transit providers with established interconnects might constrain an FSP's ability to refuse or delay interconnection to such FVCT purchasers, it would not necessarily constrain the FVCT supplier's ability and incentives to set FTRs above an efficient level for those third-party transit providers absent regulation, which would in turn presumably be passed through (indirectly) to relevant FVCT purchasers.
- 6.57 In addition, the scope for retaliatory behaviour in the case of smaller or new-entrant Service Providers is also considered to be diminished by their commercial need to obtain access from a range of FVCT suppliers in order to build a viable retail offer with sufficient connectivity for consumers.
- 6.58 ComReg is therefore of the view that buyers of FVCT have no credible and effective alternative sources of FVCT. In this regard, Service Providers - regardless of their size - cannot exercise CBP by switching to, or credibly threatening to switch to, an alternative source of FVCT supply.

### **Price sensitivity of the buyer**

- 6.59 Purchasers of FVCT may display sensitivity to the level of FTRs charged by suppliers of an FVCT service, which may place a competitive constraint on termination rates in the context of CBP. The degree of price sensitivity may vary in practice depending on, for example, the substitutes (if any) available to the purchaser, the absolute level of the FTR, and the number of calls terminated to a particular FVCT provider's network.
- 6.60 Furthermore, as their retail subscribers would have a general expectation of end-to-end connectivity with all networks, any price sensitivity on the part of the FVCT purchasers is likely to be somewhat constrained by the need to build a fully comprehensive retail offer which meets the general expectation of interoperability and accessibility to other networks.
- 6.61 The extent to which any FVCT price sensitivity has manifested or is likely to manifest in a concrete impact on the price-setting behaviour of the relevant FSPs is considered further below<sup>477</sup> from the evidence of actual price-setting behaviour to date.

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<sup>477</sup> As set out in paragraphs 6.63 to 6.88.



6.62 In the absence of SMP regulation in a Relevant FVCT Market, Service Providers' levels of price sensitivity to the FTRs of the Unregulated FSPs may be greater, given the asymmetries between the FTRs charged by SMP FSPs and Unregulated FSPs, and between different Unregulated FSPs, on the assumption that the 2007 SMP FSPs were to continue to charge current FTR levels absent regulation (which they may not). However, in their responses to the 2016 SIRs issued by ComReg, no Service Provider respondent provided material evidence of having responded to the comparatively higher FTRs set by these Unregulated FSPs. This suggests either of two possibilities. In the first instance, Service Providers demonstrate limited price sensitivity, and, accordingly, a limited incentive to exert CBP. In the second instance, Service Providers are price sensitive, but are unable to act on this price sensitivity by means of exerting effective CBP.

### **Evidence of price-setting behaviour & negotiations between Service Providers**

#### **What are the actual FTRs charged by FSPs, and how have these changed over the past decade?**

- 6.63 The objective of this subsection is to examine the FTRs charged by FSPs active on the Relevant FVCT Markets identified in Section 5 to determine whether FSPs responded to any potential CBP exerted by their wholesale customers when setting FTRs.
- 6.64 In the light of the Modified Greenfield Approach, ComReg is of the preliminary view that a Service Provider which is not subject to SMP regulation is more likely to be able to exert a degree of CBP than a Service Provider which is subject to SMP regulation. This is because it allows such non-SMP regulated Service Providers the possibility of threatening to or actually increasing their own termination rates as part of negotiations. All seven of the 2007 SMP FSPs are subject to price regulation, which prevents them from increasing their FTRs above the levels stipulated in the 2012 Pricing Decision. However, in a scenario where regulation is absent, this would not be the case.
- 6.65 The 2007 SMP FSP's FTRs have been reduced on a number of occasions since the 2007 FVCT Decision (in the case of Eircom) and the 2012 Pricing Decision (in the case of the 2007 SMP FSPs) as a result of regulatory obligations imposed by ComReg, rather than necessarily as a result of effective CBP being exercised by Service Providers. ComReg has formed this view on the grounds that all the SMP FSPs have set their FTRs at the maximum levels permissible under regulation, as well as noting that, prior to regulation, FTRs were significantly higher than their current levels.

- 6.66 Accordingly, and given the Modified Greenfield Approach, examining the price-setting behaviour of a 2007 SMP FSP is not a useful means of assessing the nature of any CBP exercised by purchasers of the FVCT service offered by that SMP FSP. However, ComReg's preliminary view is that such reductions (or the level of them) would not have happened but for regulation. ComReg also analyses the credibility of the ways in which Service Providers could potentially exert CBP over SMP FSPs in the absence of *ex ante* regulation. It does so by comparing:
- (a) The FTRs charged by SMP FSPs prior to and following the implementation of price regulation of FTRs; and
  - (b) The FTRs charged by SMP FSPs subject to price regulation, and Unregulated FSPs which are not subject to price regulation.
- 6.67 ComReg's 2016 SIRs asked respondent FSPs whether they had experienced CBP with respect to the setting of FTRs at any point over the past three years. Of the 21 FSP respondents, only one [redacted] indicated that it had experienced CBP, in the context of FTRs arising for inbound international transit traffic only.<sup>478</sup> No other respondent indicated that it had experienced CBP with respect to the setting of FTRs. The absence of any such responses is indicative that FSPs do not likely experience the exercise of effective CBP as a disciplining force on their conduct – pricing or otherwise – on each of the Relevant FVCT Markets.
- 6.68 The existence of CBP over time may be observed by reference to historical pricing trends. The ability of an FVCT supplier to determine its pricing, to an appreciable extent, independently of its wholesale customers and consumers may be suggestive (but not necessarily determinative in itself) of SMP when considered alongside other factors. ComReg has therefore examined trends in the FTR pricing behaviour of FSPs since the 2007 FVCT Decision.
- 6.69 Figure 54 and Figure 55 below set out the movement in FTRs since 2007. Comparisons of FTRs for a representative call must be carefully constructed. This is because FSPs may implement either of two FTR charging structures:
- (a) A flat cent per minute FTR, which may be divided into Peak, Off-peak and Weekend rates; or
  - (b) A two-part FTR consisting of a flat cent per minute FTR component (which, in the case of the 2007 SMP FSPs, is lower than the flat cent per minute only rate), and a cent per call component.
- 6.70 In the case of the 2007 SMP FSPs, Eircom applies a two-part FTR, while the 2007 Alternative SMP FSPs all apply a flat-rate FTR.

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<sup>478</sup> [redacted]

- 6.71 A more complete picture of relative FTRs can be illustrated by comparing FTRs using both charging structures across a number of call durations. An OECD note,<sup>479</sup> which reports average call durations across a number of countries by call type for the purposes of constructing representative telecommunications price baskets, indicates that averaging across day/evening/weekend and across the countries considered would yield a general (non-weighted) range for fixed voice calls to local and national fixed numbers of 2.4 to 6.1 minutes in duration. Drawing on insights from this indicative range, ComReg compares overall wholesale FTRs applied by all relevant FSPs for fixed voice calls under two scenarios - for a 3-minute peak call and for a 6-minute peak call respectively.
- 6.72 In cases where an FSP's FTR has both a per-call fee and a per-minute charge,<sup>480</sup> this fixed per-call fee is included in addition to the per-minute fee in the calculated cost of a 3 and 6 minute peak call. It should also be noted that Eircom's FTRs charged at a primary exchange level (i.e. excluding the costs of transit) are taken for the purposes of comparing the FTRs charged by Eircom and the other FSPs respectively. The data used in Figures 54 and 55 below are based on data published in Eircom's RIO and the openeir STRPL.
- 6.73 For ease of visual representation, three sets of Other Authorised Operators ('**OAOs**'), who charge identical FTRs, have been grouped together to facilitate visualisation in the graphs below. These are:
- (a) **OAo Group 1:** Budget, Equant, Dialoga Servicios
  - (b) **OAo Group 2:** Finarea, In2com, Talk Telecom, Swiftcall
  - (c) **OAo Group 3:** 3PlayPlus, Blue Chip Telecom, Voxbone, Goldfish, Rivertower
- 6.74 Also, the FSP Ocean has been removed from the graph to facilitate scaling and visualisation, as its FTRs are in excess of 1.6c per minute, and far in excess of other FSPs on the market.<sup>481</sup> The graphs demonstrate that FTRs charged by the Alternative 2007 SMP FSPs dropped significantly in July 2013, following the entry into force of the FTR price controls set out in the 2012 Pricing Decision.

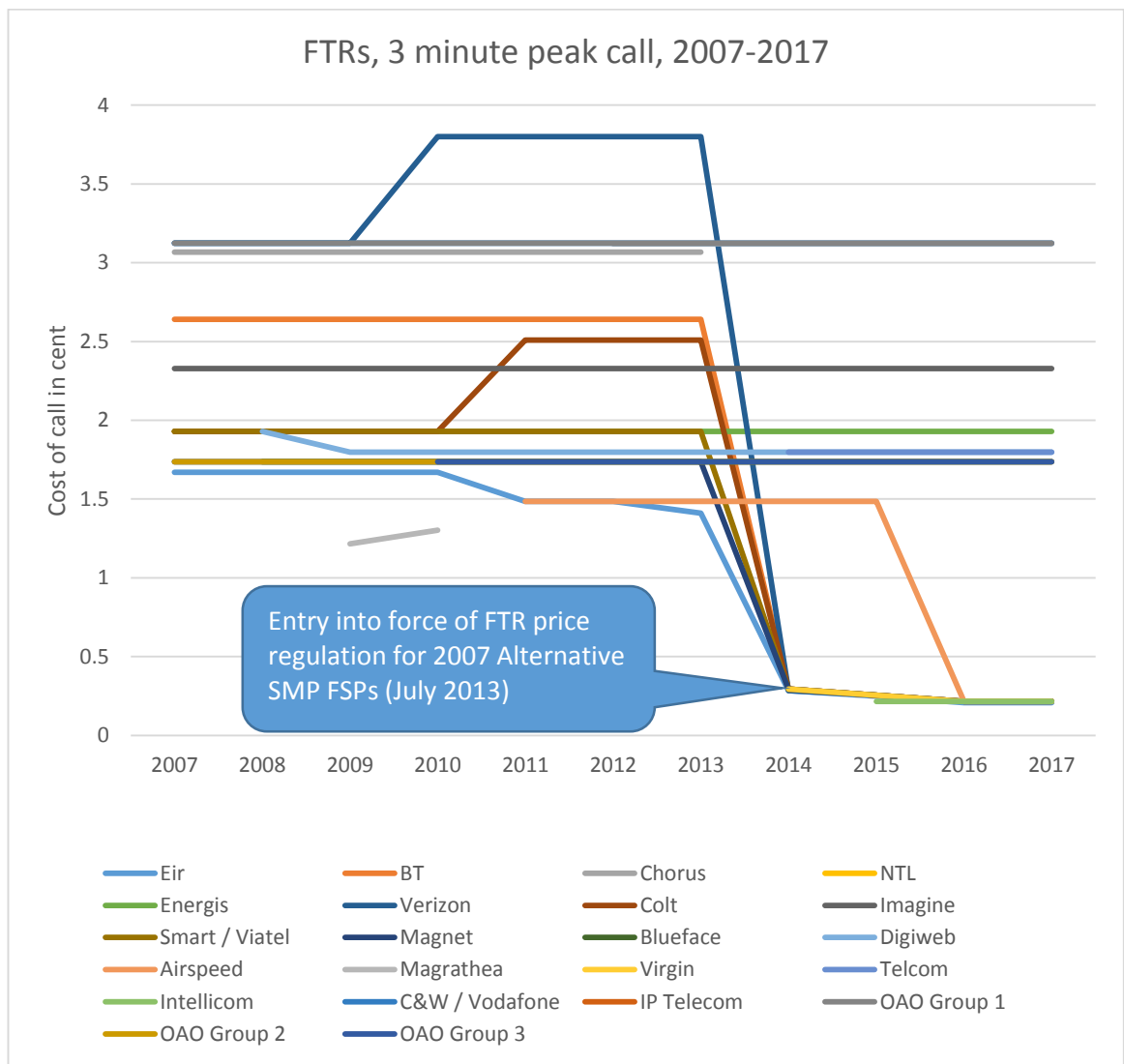
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<sup>479</sup> OECD Working Party on Communication Infrastructures and Services Policy, "Revision of the Methodology for Constructing Telecommunication Price Baskets", 18 March 2010.

<sup>480</sup> According to the openeir STRPL, eight Unregulated FSPs charge FTRs composed of a per minute and per call component: Energis, Imagine, Talk Telecom, Swiftcall, Finarea, In2tel, Digiweb and Telcom.

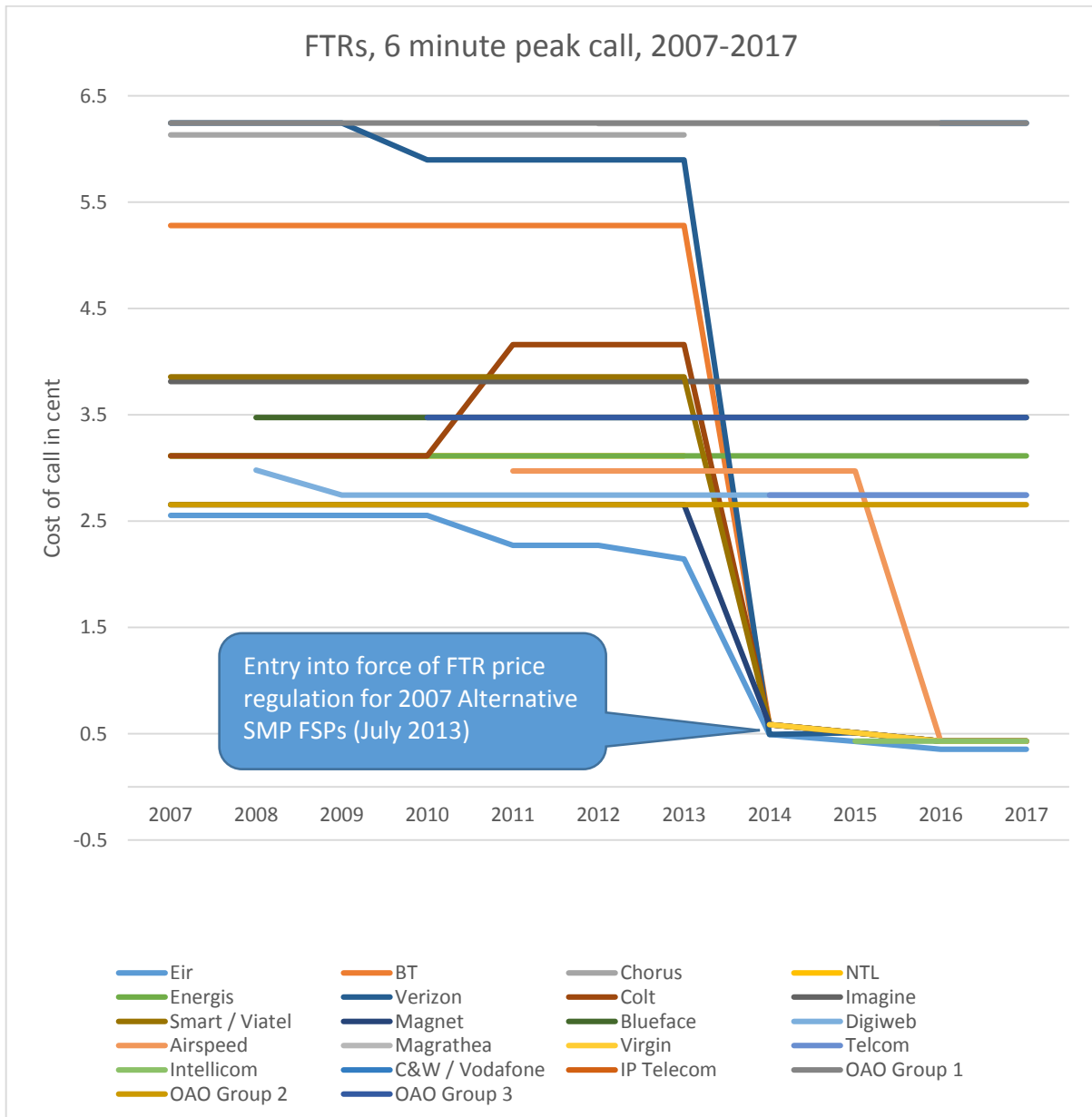
<sup>481</sup> Ocean is one of a number of legacy entities, including Energis and Blue Chip Telecom which continue to be listed on the STRPL, but which are not actively trading, or have been wound up, according to Companies Registration Office ('**CRO**') records. Ocean originally commenced operations in June 1998 as a joint venture between BT, ESB and AIG. BT bought ESB and AIG out in January 2000 at the same time as it was acquiring Esat Telecom. Ocean has accordingly been a BT subsidiary since January 2000, and changed its name by special resolution to BT Global Communications (Ireland) Limited in April 2005. BT Global Communications (Ireland) Limited is licensed by ComReg to offer fixed voice telephony services in the State, as set out in its ERAU entry, available online at <https://serviceregister.comreg.ie/Services/ProviderDetails/103>

**Figure 54: FTR Pricing for a 3-minute peak call, 2007-2017 (expressed in cent)**



Source: Eircom RIO and openeir STRPL

**Figure 55: FTR Pricing for a 6-minute peak call, 2007-2017 (expressed in cent)**



Source: Eircom RIO and openeir STRPL

6.75 Both Figures above show ongoing disparities between FTRs charged by FSPs, but the range of disparity narrowed in 2013 in the case of the 2007 Alternative SMP FSPs, following the implementation of the price control remedies set out in the 2012 Pricing Decision. The relative values of each FSP’s FTRs set out below at Table 17 below show the relative movement in each FSP’s FTRs over the period since 2007 (years in parentheses show the year the FSP commenced the supply of FVCT, if this was after 2007).

**Table 17: % Change in FTRs, 2007-2017**

<b>FSP</b>	<b>% Change in FTRs (3 minute call)</b>	<b>% Change in FTRs (6 minute call)</b>
<b>2007 SMP FSPs</b>		
<b>Eircom</b>	-88%	-86%
<b>BT</b>	-92%	-92%
<b>Verizon</b>	-93%	-93%
<b>Colt</b>	-89%	-86%
<b>Smart / Viatel</b>	-89%	89%
<b>Magnet</b>	-88%	-84%
<b>Virgin (2014)</b>	-27%	-27%
<b>Unregulated FSPs</b>		
<b>Budget</b>	0%	0%
<b>Ocean</b>	0%	0%
<b>Energis</b>	0%	0%
<b>Imagine</b>	0%	0%
<b>Talk Telecom</b>	0%	0%
<b>Swiftcall</b>	0%	0%
<b>Finarea</b>	0%	0%
<b>In2com</b>	0%	0%
<b>Digiweb</b>	-7%	-8%
<b>Blueface (2008)</b>	0%	0%
<b>3PlayPlus (2010)</b>	0%	0%
<b>Rivertower (2011)</b>	0%	0%
<b>Equant (2011)</b>	0%	0%
<b>Blue Chip Telecom (2011)</b>	0%	0%
<b>Airspeed (2011)</b>	-85%	-85%
<b>Voxbone (2011)</b>	0%	0%
<b>Magrathea (2012)</b>	0%	0%
<b>Goldfish (2013)</b>	0%	0%
<b>Telcom (2014)</b>	0%	0%
<b>Dialoga Servicios (2015)</b>	0%	0%
<b>Intellicom (2015)</b>	0%	0%
<b>C&amp;W / Vodafone</b>	0%	0%

Source: Eircom RIO and openeir STRPL

6.76 The following points should be borne in mind when interpreting the FTR trends in respect of the 2007 SMP FSPs:<sup>482</sup>

(a) Eircom has been subject to a regulatory price control obligation since the 2007 FVCT Decision and the FTR changes above should be considered in this context:

- In the 2007 FVCT Decision, ComReg obliged Eircom to set cost oriented FTRs based on a forward-looking long run incremental cost ('**FL-LRIC**') pricing model.
- Pursuant to the price control obligations set out in ComReg's 2007 FVCT Decision, Eircom reduced its FTRs in April 2010, January 2011 and in July 2012.
- Following ComReg's 2012 Pricing Decision, which altered the costing methodology from FL-LRIC to Pure LRIC, Eircom reduced its FTRs in July 2012, July 2014 and July 2015.<sup>483</sup>

(b) The 2007 Alternative SMP FSPs were found to have SMP in the 2007 FVCT Decision. However, price control obligations were deferred for these FSPs due to ComReg's then-position (which was subsequently amended) that certain thresholds should first be met.<sup>484</sup>

- Following ComReg's 2012 Pricing Decision, the 2007 Alternative SMP FSPs reduced their FTRs in July 2012, July 2014 and July 2015.<sup>485</sup>

6.77 Blue Face, Ocean, Energis, Talk Telecom, Swiftcall, Modeva (Budget Telecom), Vodafone (Cable & Wireless), Finarea, Imagine and In2tel were not designated with SMP by the 2007 FVCT Decision.<sup>486</sup> Thus, price control obligations were not imposed on them. These FSPs have not been subject to any SMP regulation and have not changed their FTRs since 2007, and, given the level and movement of their FTRs, it suggests that they have not been subject to meaningful competitive constraints.

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<sup>482</sup> Smart Telecom was also subject to the 2007 FVCT Decision but has been since acquired by Digiweb and is thus considered as part of the assessment of Digiweb for the purposes of this Consultation Paper.

<sup>483</sup> As set out in Eircom's RIO.

<sup>484</sup> See paragraphs 8.25 and 8.26 below. In its comments on the draft measure, the European Commission (in case IE/2007/0701) noted that "[*alternative network operators*] are able to charge termination rates significantly above the rates of Eircom and that in general the level of fixed termination rates in Ireland seems to be high", and called on ComReg to impose a price control obligation also on these alternative FSPs at the time of the 2007 FVCT Decision.

<sup>485</sup> As set out in Eircom's RIO.

<sup>486</sup> As set out at pages 18 and 19 of the 2007 FVCT Consultation.

- 6.78 3Play Plus, Equant Network Systems, Voxbone, Rivertower, Blue Chip Telecom, Goldfish, Telcom, Dialoga Servicios, Intellicom and Magrathea Telecommunications were not providing FVCT services at the time of the 2007 FVCT Decision. Hence, these FSPs have not been designated with SMP, and are not subject to price control regulations. These FSPs have not changed their FTRs since their dates of market entry, with such entry dates varying from 2010 in the case of 3PlayPlus, to 2015 in the case of Intellicom. According to the openeir STRPL, Airspeed and Intellicom are the only Unregulated FSPs which charge FTRs equivalent to those charged by the 2007 SMP FSPs, pursuant to their regulatory obligations.
- 6.79 Airspeed and Digiweb did not provide FVCT services at the time of the 2007 FVCT Decision. Hence, these FSPs have not been designated with SMP, and are not subject to price control regulations. Both of these FSPs have changed their FTRs since their market entry.
- (a) From its market entry in 2011 until July 2015, Airspeed retained its FTRs at the same level, well in excess of the regulated rate. In August 2015, Airspeed reduced its FTRs to the regulated rate.<sup>487</sup> According to the STRPL, Airspeed and Intellicom are the only Unregulated FSPs which charge FTRs equivalent to those charged by the 2007 SMP FSPs, pursuant to their regulatory obligations.
- (b) Digiweb commenced charging FTRs in January 2009. It reduced its FTRs in November 2009, and has retained its FTRs at that level (which is well in excess of the regulated rate) since then.

**Do FTR pricing trends suggest that effective CBP has been or could be exercised, absent regulation?**

- 6.80 In assessing whether an FSP has SMP, and noting the preliminary views reached in Section 5<sup>488</sup> that there is no effective demand-side substitution arising from actual or potential competitors in each of the Relevant FVCT Markets, ComReg considers how FVCT could be priced absent SMP regulatory controls, and whether the resultant FTRs would approximate those which would arise in response to the successful exercise of strong CBP. In the case of the 2007 SMP FSPs, this is a difficult task as their FTRs have been set in the presence of regulation. In the case of the Unregulated FSPs, it is possible that they may have perceived a potential threat of regulation in their FTR-setting behaviour. Nevertheless, in understanding the extent to which CBP could be exercised in the Relevant FVCT Markets absent regulation, ComReg has considered trends in the 2007 SMP FSPs' and Unregulated FSPs' pricing behaviour since the 2007 Consultation.

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<sup>487</sup> In its September 2016 SIR response, Airspeed gave no reason for having reduced its FTRs to the regulated level in July 2015.

<sup>488</sup> As set out in paragraph 5.112 above.



6.81 Table 19 below compare the FTRs of the 2007 SMP FSPs and Unregulated FSPs for a 3 and 6-minute peak call respectively. Two broad FTR comparators can be identified:

- (a) The first comparator is between the FTRs of Eircom and the FTRs of the 2007 Alternative SMP FSPs in the period from 2007 to 2013, when Eircom was the only SMP FSP which was subject to specific price regulation (cost orientation calculated by means of a FL-LRIC model), and from 2013 onwards, when all seven 2007 SMP FSPs were subject to a price control obligation of cost orientation, calculated by means of a Pure LRIC costing methodology.
- (b) The second comparator is between the FTRs of the 2007 SMP FSPs (only Eircom till 2013, and all seven 2007 SMP FSPs from 2013) and the FTRs of the Unregulated FSPs.

**Table 18: FTRs as % of regulated FTR (3 minute peak call)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Eircom</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>BT</b>	158%	158%	158%	178%	178%	187%	100%	100%	100%	100%
<b>Verizon</b>	187%	187%	228%	256%	256%	269%	100%	100%	100%	100%
<b>Colt</b>	116%	116%	116%	169%	169%	178%	100%	100%	100%	100%
<b>Smart / Viatel</b>	116%	116%	116%	130%	130%	137%	100%	100%	100%	100%
<b>Magnet</b>	104%	104%	104%	117%	117%	123%	100%	100%	100%	100%
<b>NTL</b>	116%	116%	116%	130%	130%	137%				
<b>Chorus</b>	184%	184%	184%	206%	206%	217%				
<b>UPC / Virgin</b>							100%	100%	100%	100%
<b>Ocean</b>	290%	290%	290%	326%	326%	343%	1697%	1951%	2337%	2337%
<b>Energis</b>	116%	116%	116%	130%	130%	137%	677%	778%	932%	932%
<b>Airspeed</b>				100%	100%	105%	521%	599%	104%	104%
<b>Imagine</b>	140%	140%	140%	157%	157%	165%	817%	939%	1125%	1125%
<b>Intellicom</b>								87%	104%	104%
<b>Digiweb</b>	116%	108%	108%	121%	121%	128%	631%	725%	869%	869%
<b>Blueface</b>		104%	104%	104%	117%	117%	123%	609%	700%	839%
<b>Magrathea</b>					210%	221%	1095%	1258%	1507%	1507%
<b>Telcom</b>							631%	725%	869%	869%
<b>C&amp;W / Vodafone</b>	187%	187%	187%	210%	210%	222%	1096%	1259%	1509%	1509%
<b>IP Telecom</b>										1135%
<b>OAOs 1</b>	187%	187%	187%	210%	210%	222%	1096%	1259%	1509%	1509%
<b>OAOs 2</b>	104%	104%	104%	117%	117%	123%	609%	700%	839%	839%
<b>OAOs 3</b>			104%	117%	117%	123%	609%	700%	839%	839%

**Table 19: FTRs as % of regulated FTR (6 minute peak call)**

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Eircom</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
<b>BT</b>	207%	207%	207%	232%	232%	246%	100%	100%	100%	100%
<b>Verizon</b>	245%	245%	231%	260%	260%	275%	100%	100%	100%	100%
<b>Colt</b>	122%	122%	122%	183%	183%	194%	100%	100%	100%	100%
<b>Smart / Viatel</b>	151%	151%	151%	170%	170%	180%	100%	100%	100%	100%
<b>Magnet</b>	104%	104%	104%	117%	117%	124%	100%	100%	100%	100%
<b>NTL</b>	122%	122%	122%	137%	137%	145%				
<b>Chorus</b>	240%	240%	240%	270%	270%	286%				
<b>UPC / Virgin</b>							100%	100%	100%	100%
<b>Ocean</b>	379%	379%	379%	426%	426%	451%	1955%	2261%	2733%	2733%
<b>Energis</b>	122%	122%	122%	137%	137%	145%	629%	727%	879%	879%
<b>Airspeed</b>				131%	131%	139%	600%	694%	122%	122%
<b>Imagine</b>	149%	149%	149%	168%	168%	178%	771%	891%	1077%	1077%
<b>Intellicom</b>								101%	122%	122%
<b>Digiweb</b>	117%	108%	108%	121%	121%	128%	555%	642%	776%	776%
<b>Blueface</b>		136%	136%	153%	153%	162%	702%	812%	981%	981%
<b>Magrathea</b>					274%	291%	1261%	1458%	1763%	1763%
<b>Telcom</b>							555%	642%	776%	776%
<b>C&amp;W / Vodafone</b>	245%	245%	275%	275%	292%	1262%	1460%	245%	1765%	1765%
<b>IP Telecom</b>										1327%
<b>OAOs 1</b>	245%	245%	245%	275%	275%	292%	1262%	1460%	1765%	1765%
<b>OAOs 2</b>	104%	104%	104%	117%	117%	124%	536%	620%	750%	750%
<b>OAOs 3</b>			136%	153%	153%	162%	702%	812%	981%	981%

Source: Eircom RIO and openeir STRPL

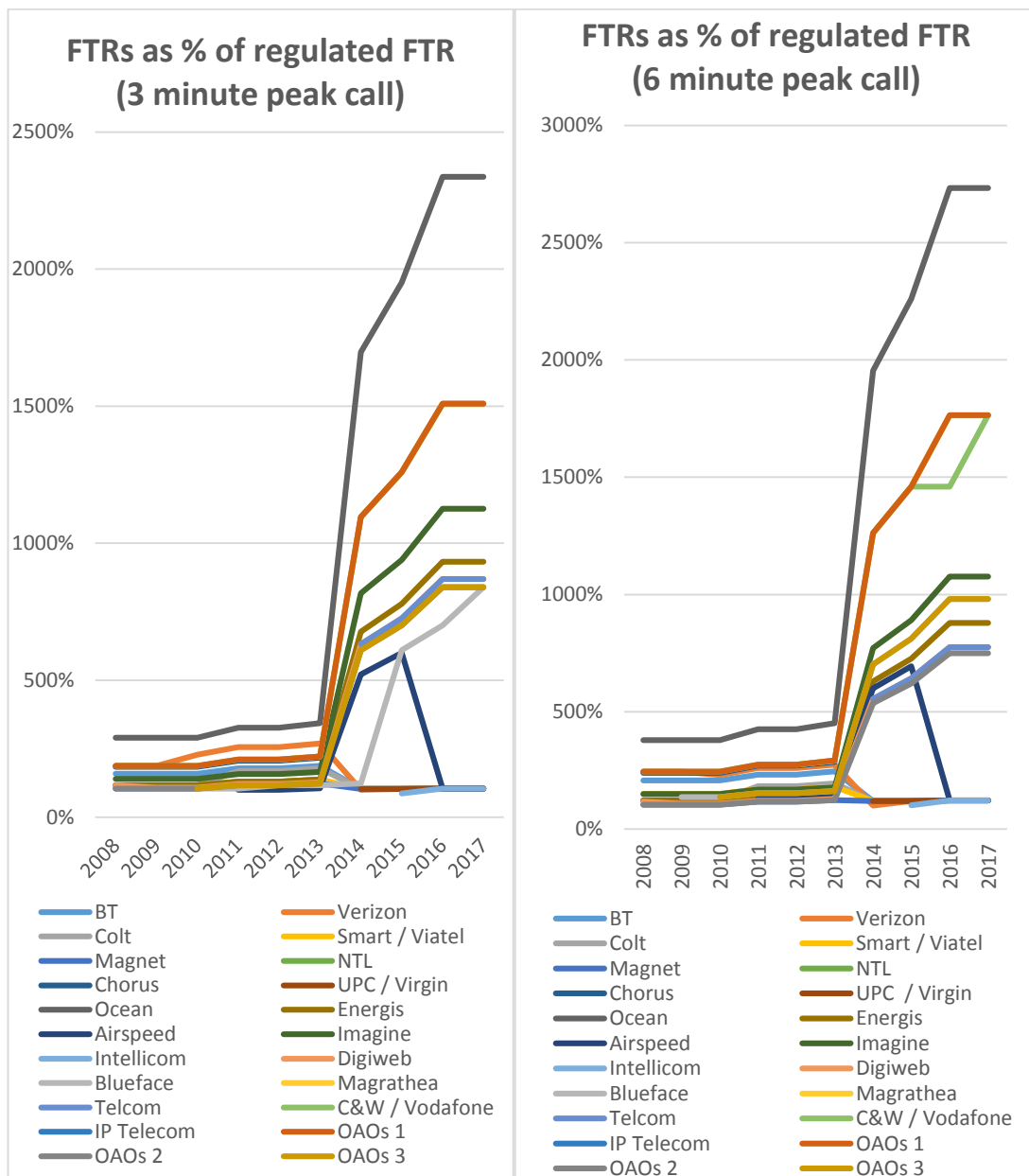
- 6.82 The data set out at Table 18 and Table 19 above show that, from 2008 to 2013 (the time period when Eircom alone was subject to a price control obligation; the 2007 Alternative SMP FSPs were subject to price control measures pursuant to the 2012 Pricing Decision, which took effect from 1 January 2013), the difference between FTRs charged by Eircom and all other FSPs widened in every case, as Eircom reduced its FTRs pursuant to its regulatory price control obligations, while all but two of the other FSPs kept their FTRs static.<sup>489</sup> Following the 2012 Pricing Decision, the gap between the FTRs charged by Eircom, and by the 2007 Alternative SMP FSPs fell dramatically, and now stands at 4% in the case of a three minute peak call, and 16% in the case of a six minute peak call.<sup>490</sup>
- 6.83 It is accordingly ComReg's preliminary view that, comparing the pricing behaviour of the 2007 Alternative SMP FSPs prior to, and following, the 2012 Pricing Decision, that any CBP has not been sufficiently effective in preventing those FSPs from behaving, to an appreciable extent, independently of their wholesale customers when setting their FTRs, in the absence of price control regulation.
- 6.84 None of the Unregulated FSPs with published FTRs have changed their initial FTRs since market entry, except for Digiweb and Airspeed. Given that the 2007 SMP FSPs have reduced their FTRs on a number of occasions pursuant to their regulatory obligations, the gap between the FTRs charged by the 2007 SMP FSPs and the Unregulated FSPs has grown from a maximum of 379% in 2008, to 2733% in 2017 (or 1765% if Ocean is excluded).
- 6.85 The growth in this gap year-on-year is clearly illustrated in the chart below, where the x-axis represents the regulated rate charged by Eircom:

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<sup>489</sup> Verizon increased its peak FTRs by 21% in 2009, while Colt increased its peak FTRs by 30% in 2010. At the time, both were SMP FSPs, but were not subject to price control obligations.

<sup>490</sup> This gap is explained by the fact that the 2012 Pricing Decision permits the 2007 SMP FSPs to charge an FTR based on either a flat cent per minute rate, or a two-part rate consisting of a (lower) flat cent per minute rate, but also a cent per call component. Eircom charges a two-part FTR, while the 2007 Alternative SMP FSPs all charge flat rate FTRs. This means that the two SMP FTR rates are very similar for short call durations, but diverge for longer call durations.

**Figure 56: FTRs as percentages of the regulated FTR, 2007-2017**



6.86 The data presented above suggest that the FTRs of Unregulated FSPs have remained above the level that would be expected to obtain in a competitive market (using regulated SMP FTRs as a proxy for the competitive level). Thus, the difference between FTRs charged by Unregulated FSPs, and by the 2007 SMP FSPs has increased over time, as the level of SMP-based FTRs has fallen. This suggests that CBP does not act as an effective constraint on the pricing behaviour of Unregulated FSPs.

- 6.87 It is ComReg's preliminary view that the FTRs set by Unregulated FSPs which are not subject to *ex ante* price controls are indicative of their capacity, from a pricing perspective, to behave, to an appreciable extent, independently of all other FSPs and their relevant wholesale customers when setting their FTRs. This suggests that the pricing behaviour of Unregulated FSPs has not been disciplined effectively by the exercise of any CBP. Accordingly, ComReg's preliminary view is that any CBP has not been, nor is likely to be, effective, absent regulation.
- 6.88 The analysis in paragraphs 6.63 to 6.87 above shows wide variations in the FTRs charged by the 2007 SMP FSPs and the Unregulated FSPs for FVCT since the implementation of the 2007 FVCT Decision and, subsequently, the 2012 Pricing Decision. Unregulated FSPs have charged higher FTRs than the 2007 SMP FSPs subject to price control, with the difference generally increasing over time as the 2007 SMP FSPs have reduced their cost oriented FTRs. In light of this analysis, and having regard to the definition of the Relevant FVCT Markets (which is based on the scope of each individual FSP's FVCT services), it is ComReg's preliminary view that, absent SMP regulation, any CBP has not been, nor is likely to be, effective.

### **Preliminary Conclusion on whether CBP is likely to constrain FSPs' FTR setting behaviour**

- 6.89 ComReg is of the preliminary view that Service Providers generally lack credible outside options to purchasing FVCT from specific FSPs, due to a general end user expectation of end-to-end connectivity with all available networks, and due to the inability of one FSP to terminate a call to the network of another FSP. It is therefore unlikely that a Service Provider would be capable of exercising a material constraint on the ability of FSPs to set their FTRs above efficient cost absent regulation.
- 6.90 Based on the analysis set out above, including the evidence of FTR pricing behaviour from 2007 to date, it is unlikely that any Service Provider would, absent regulation, be capable of exercising an effective CBP constraint on a FSP's supply of FVCT, or its ability to set its FTRs above a competitive market level.

6.91 The review of actual FTR-pricing behaviour since 2007, coupled with the economic assessment of other relevant factors influencing the respective bargaining dynamics and positions of the parties on a forward-looking basis, provides strong evidence for a preliminary finding of ineffective CBP in all of the Relevant FVCT Markets of the other FSPs for the purposes of the present market review. As noted above, this preliminary finding is also in line with EU experience according to which all NRAs continue to define each individual FSP as a distinct relevant market for FVCT and have also consistently found SMP.<sup>491</sup>

### **Assessment of CBP in Relevant MVCT Markets**

6.92 In the following paragraphs, ComReg assesses whether there is evidence that buyers of MVCT have exercised effective CBP, having regard to the factors and range of criteria set out in paragraphs 6.33 to 6.38 above.

6.93 It is worth noting at the outset that, in the SIRs which it issued in 2016,<sup>492</sup> ComReg sought the views of MSPs as to whether, in their experience, CBP was or could be exercised and whether this was, or could be, effective in mitigating any SMP and the ability of MSPs to sustain increases in MTRs above those consistent with a competitive market outcome. The views of MSPs received are summarised at the start of each assessment below and considered in the analysis of whether effective CBP has been, or is likely to be, experienced by each of the MSPs identified as operating on a Relevant MVCT Market.

6.94 Table 20 below sets out the movement in individual MSPs' MTRs over the period since H2 2007. The data are based on information published in the openair STRPL and the rates shown are the rates in place at the start of the period in question.

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<sup>491</sup> European Commission, Communication on market reviews under the EU Regulatory Framework (3rd report) Further steps towards the consolidation of the internal market for electronic communications ('**Communication on Market Reviews**'), COM(2010) 271 final, page 7. See also European Commission, Accompanying document to the Communication on Market Reviews, SEC(2010) 659, page 11.

<sup>492</sup> ComReg issued SIRs to seven MSPs (Vodafone, Three, Meteor, iD Mobile, Virgin Media, Lycamobile and TMI) in July 2016, and received responses from all seven in September 2016.

**Table 20: Changes to MTRs (cent per minute), 2007 to date**

<b>Vodafone</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak	12.26	11.89	12.75	9.55	5.84	4.77	2.60	2.60	2.60	0.84	0.82
Off-peak	8.15	7.78	4.83	4.83	2.95	2.41	2.60	2.60	2.60	0.84	0.82
Weekend	5.00	4.87	4.83	4.83	2.95	2.41	2.60	2.60	2.60	0.84	0.82
<b>Meteor</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak	15.90	15.60	15.60	10.43	8.50	6.59	4.25	4.25	4.25	0.84	0.82
Off-peak	10.71	9.79	9.79	8.38	1.00	1.00	1.00	1.00	1.00	0.84	0.82
Weekend	8.32	7.60	5.21	4.46	1.00	1.00	1.00	1.00	1.00	0.84	0.82
<b>Three</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak	17.78	17.78	17.78	17.78	13.88	11.38	2.60	2.60	2.60	0.84	0.82
Off-peak	11.43	11.43	11.43	6.90	2.00	6.00	2.60	2.60	2.60	0.84	0.82
Weekend	8.89	8.89	8.89	8.89	3.91	0.50	2.60	2.60	2.60	0.84	0.82
<b>TMI</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak	18.04	18.04	17.80	17.12	17.12	15.01	2.60	2.60	2.60	0.84	0.82
Off-peak	12.61	12.61	12.50	12.02	12.02	10.42	2.60	2.60	2.60	0.84	0.82
Weekend	10.30	10.30	10.20	9.81	9.81	8.43	2.60	2.60	2.60	0.84	0.82
<b>Lycamobile</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak					13.79	13.79	2.60	2.60	2.60	0.84	0.82
Off-peak					13.79	13.79	2.60	2.60	2.60	0.84	0.82
Weekend					13.79	13.79	2.60	2.60	2.60	0.84	0.82
<b>Virgin Media</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak									2.60	2.60	2.60
Off-peak									2.60	2.60	2.60
Weekend									2.60	2.60	2.60
<b>iD Mobile</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak									6.00	1.94	1.89
Off-peak									6.00	1.94	1.89
Weekend									6.00	1.94	1.89

6.95 Table 21 below shows the relative movement in each individual MSP's MTRs over the period since H2 2007.

**Table 21: Percentage fall in MTRs, 2007-2017**

<b>MSP</b>	<b>Peak MTRs</b>	<b>Off-peak MTRs</b>	<b>Weekend MTRs</b>	<b>Notes</b>
<b>Vodafone</b>	-93%	-90%	-84%	
<b>Meteor</b>	-95%	-92%	-90%	
<b>Three</b>	-95%	-93%	-91%	
<b>TMI</b>	-95%	-93%	-92%	
<b>Lycamobile</b>	-94%	-94%	-94%	From 2011
<b>Virgin Media</b>	0%	0%	0%	From 2015
<b>iD Mobile</b>	-69%	-69%	-69%	From 2015

6.96 Table 22 below shows each MSP's MTRs as a percentage of regulated MTRs current at each time period.



**Table 22: MTRs as a % of regulated SMP MTRs, 2007 to date**

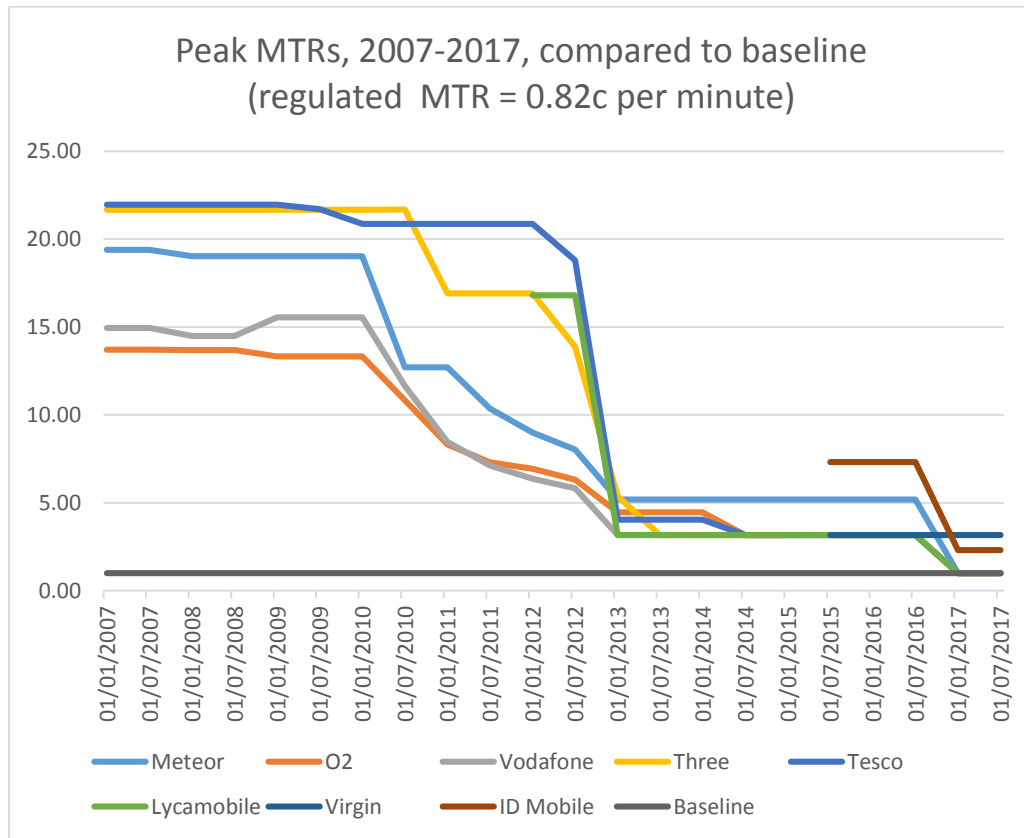
<b>Vodafone</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak	95%	92%	99%	74%	45%	37%	100%	100%	100%	100%	100%
Off-peak	71%	68%	42%	42%	26%	21%	100%	100%	100%	100%	100%
Weekend	84%	82%	81%	81%	49%	40%	100%	100%	100%	100%	100%
<b>Meteor</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak	89%	88%	88%	59%	48%	37%	100%	100%	100%	100%	100%
Off-peak	94%	86%	86%	73%	9%	9%	100%	100%	100%	100%	100%
Weekend	94%	86%	59%	50%	11%	11%	100%	100%	100%	100%	100%
<b>Three</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak	100%	100%	100%	100%	78%	64%	100%	100%	100%	100%	100%
Off-peak	100%	100%	100%	60%	17%	52%	100%	100%	100%	100%	100%
Weekend	100%	100%	100%	100%	44%	6%	100%	100%	100%	100%	100%
<b>TMI</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak	694%	694%	685%	658%	658%	577%	100%	100%	100%	100%	100%
Off-peak	485%	485%	481%	462%	462%	401%	100%	100%	100%	100%	100%
Weekend	396%	396%	392%	377%	377%	324%	100%	100%	100%	100%	100%
<b>Lycamobile</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak					530%	530%	100%	100%	100%	100%	100%
Off-peak					530%	530%	100%	100%	100%	100%	100%
Weekend					530%	530%	100%	100%	100%	100%	100%
<b>Virgin Media</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak									100%	310%	317%
Off-peak									100%	310%	317%
Weekend									100%	310%	317%
<b>iD Mobile</b>	<b>H2'07</b>	<b>H2'08</b>	<b>H2'09</b>	<b>H2'10</b>	<b>H2'11</b>	<b>H2'12</b>	<b>H2'13</b>	<b>H2'14</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak									231%	231%	230%
Off-peak									231%	231%	230%
Weekend									231%	231%	230%

- 6.97 In assessing whether an MSP has SMP, ComReg considers how MVCT may have been priced absent SMP regulatory controls, and whether the resultant MTRs would approximate those which would arise in a competitive market. ComReg has set out its preliminary view in Section 5 that, given the market definition, MVCT consists of individual MSP-based markets and, as such, there are no effective actual or potential competitors against which the impact of competition on the level of MTRs can be readily assessed. In addition, for those MSPs providing MVCT and not subject to regulation, they may consider the potential threat of regulation in their MTR-setting behaviour. Nevertheless, in the context of the SMP assessment, ComReg considers trends in MSP pricing behaviour to date, following the same principles are those set out in respect of its assessment of FSP pricing behaviour above.<sup>493</sup>
- 6.98 Figure 57, Figure 58 and Figure 59 below demonstrate how MTRs have changed in the period from 2007 to 2017. The graphs compare each MSP's MTRs against a baseline – in this case, the regulated MTR, which is currently set by ComReg at 0.82 cent per minute for the 2012 SMP MSPs. The graphs show that MTRs have dropped significantly in the past decade, by a factor of up to 21 in the case of peak MTRs. Both the level of MTRs, and the range between MSPs' MTRs, have reduced over time, to a situation now where the 2012 SMP MSPs charge common MTRs (pursuant to regulation), while Virgin Media and iD Mobile, who are not currently regulated, charge at 317% and 230% of the regulated MTRs, respectively.

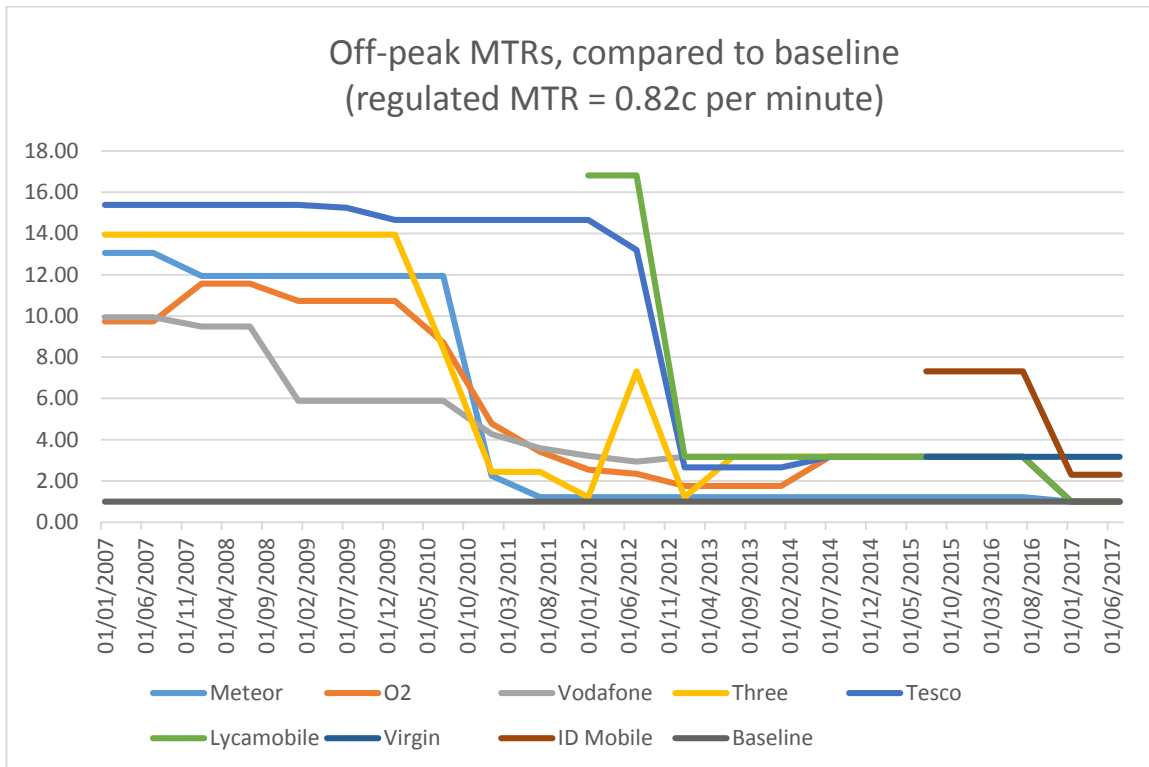
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<sup>493</sup> See paragraphs 6.33 to 6.38 above.

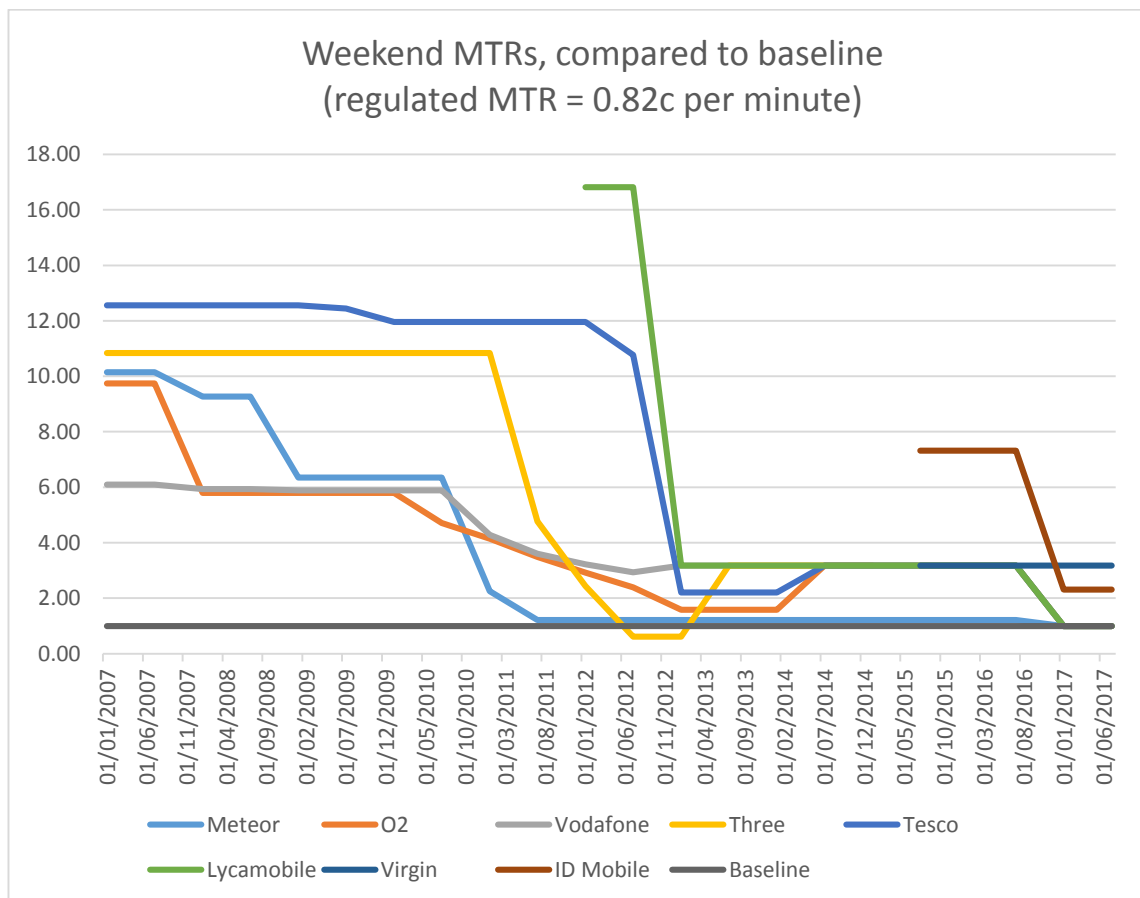
**Figure 57: Peak minute MTRs, 2007-2017**



**Figure 58: Off-peak minute MTRs, 2007-2017**



**Figure 59: Weekend minute MTRs, 2007-2017**



6.99 The 2012 SMP MSPs are, pursuant to the 2012 Pricing Decision, all subject to MTR price controls set in accordance with a cost orientation obligation based on the costs of an efficient operator using a BU pure LRIC approach (i.e., only those costs incurred by an efficient operator which are incremental to wholesale voice termination volumes). All 2012 SMP MSPs have set their MTRs at the maximum MTR permissible.

6.100 It is ComReg’s preliminary view that, absent regulation, the 2012 SMP MSPs would not have reduced their MTRs to the levels established by means of regulation, based on the disparities in the levels of MTRs charged prior to, and following, the introduction of price regulation of FTRs. The review of historic pricing by the 2012 SMP MSPs (along with other factors already considered) suggests to ComReg that these MSPs have the power to behave, to an appreciable extent, independently of other Service Providers when setting their MTRs. This suggests that, absent SMP regulation, CBP would not be effective in constraining the MTR price-setting abilities of the 2012 SMP MSPs.

- 6.101 Neither Virgin Media nor iD Mobile have been subject to SMP regulation to date. Accordingly, for the reasons set out above with respect to FVCT,<sup>494</sup> these MSPs could potentially be expected to have a greater capacity to exert CBP, as their market conduct is not constrained by SMP remedies (and they therefore have the potential to retaliate in any negotiations by increasing their MTRs). Upon market entry in 2015, Virgin Media sets its MTRs equal to the then-prevailing rate charged by the 2012 SMP MSPs. It has retained that rate in the intervening period, while the 2012 SMP MSPs have been obliged by regulation to reduce their MTRs. Accordingly, Virgin Media's MTRs have been static since its entry to the market in 2015. From July 2015 to September 2016, Virgin Media's MTRs were the same as those of the 2012 SMP MSPs. As the 2012 SMP MSPs reduced their MTRs in September 2016 and again in January 2017, the relativities between Virgin Media's MTRs and the 2012 SMP MSPs' MTRs rose to 309%, and then 317%.
- 6.102 Upon market entry in 2015, iD Mobile set its MTRs at 230% of the SMP-based MTRs. It has retained that percentage differential in the intervening period, as the 2012 SMP MSPs have been obliged by means of regulation to reduce their MTRs. Accordingly, since its market entry, iD Mobile has retained its MTRs at 230% of the SMP MTR, for any value of that MTR.
- 6.103 It is also noteworthy that both Virgin Media's and iD Mobile's MTRs are greater than those of its host network, Three, which provides the underlying radio access network and other arrangements to support Virgin Media's and iD Mobile's MVNO based services. These major differences arise despite the fact that, as MVNOs, neither undertaking has invested to the same degree as Three in mobile network infrastructure and associated facilities. It is unclear as to what, if any, objective justifications for such cost differences arise. However, in the context of this SMP analysis ComReg is simply highlighting the fact that such differences exist and that they demonstrate a degree of independence by both Virgin Media and iD Mobile in setting their MTRs.
- 6.104 It is therefore ComReg's preliminary view that the pricing behaviour of both Virgin Media and iD Mobile, along with other factors already considered, is suggestive that they have the power to behave, to an appreciable extent, independently of all other MSPs and other undertakings when setting their MTRs. This suggests that CBP has not been, nor is likely to be, effective in constraining the MTR price-setting abilities of the Unregulated MSPs.

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<sup>494</sup> As set out in paragraph 6.40 above.

6.105 The analysis in paragraphs 6.94 to 6.104 above shows that there have been wide variations between the MTRs charged by each of the MSPs. The Unregulated MSPs have charged higher MTRs than the 2012 SMP MSPs, with the difference increasing over time as the 2012 SMP MSPs have reduced their MTRs (via regulation). While there have also been differences between the MTRs charged by the 2012 SMP MSPs,<sup>495</sup> this has eroded over time, given the presence of regulation. In light of this analysis and having regard to the definition of the Relevant MVCT Markets (i.e. based on individual MVCT markets), it is ComReg's preliminary view that absent SMP regulation, each MSP individually has the power to set its MTRs, to an appreciable extent, independently of each other, customers and consumers. The review of trends in MTR pricing behaviour, and ComReg's view that such market power would likely continue on a prospective basis (absent regulation), support the strong presumption of SMP in the Relevant MVCT Markets which is not constrained by the sufficiently effective and immediate exercise of CBP.

6.106 In the following paragraphs, ComReg assesses whether each of the seven MSPs currently active in the provision of MVCT are likely to be effectively constrained by the exercise of CBP:

- iD Mobile (at paragraphs 6.108 to 6.126);
- Lycamobile (at paragraphs 6.128 to 6.142);
- Eir Mobile (at paragraphs 6.145 to 6.159);
- TMI (at paragraphs 6.161 to 6.175);
- Three (at paragraphs 6.177 to 6.190);
- Virgin Media (at paragraphs 6.192 to 6.205); and
- Vodafone (at paragraphs 6.207 to 6.220).

### **Analysis of whether CBP is likely to effectively constrain iD Mobile**

6.107 For the reasons set out in paragraphs 6.108 to 6.126 below, given iD Mobile's position in the Relevant FVCT Market, ComReg does not consider it likely that iD Mobile has been, or is likely to be, subject to effective CBP.

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<sup>495</sup> These differences stem in large part from the fact that, of the 2012 SMP MSPs, one (TMI) was not previously subject to price regulation, while, pursuant to ComReg Decisions D11/05 and D05/08, Vodafone, Meteor, O2 and Three were all subject to price control remedies. However, the level of the maximum MTR which each SMP MSP was entitled to charge pursuant to these Decisions varied.

### **Response to Statutory Information Requests**

6.108 iD Mobile, in response to the 2016 SIR,<sup>496</sup> indicated that, in principle, it acts independently of buyers in setting MTRs, and has operated an ‘asymmetrical’ MTR since its launch date. It adds, however that its MTR-setting independence is diluted somewhat by market conditions and participants, although it gave no details in support of these propositions.

6.109 However, iD Mobile also provided examples of interactions with other MSPs which appear to demonstrate that such other MSPs typically do not try to leverage any potential CBP. [§< [REDACTED]

6.110 ComReg notes iD Mobile’s position and the correspondence with other MSPs which it provided. [§< [REDACTED] suggests that any CBP has not been, or would not be, effective in terms of its ability to constrain iD Mobile in setting its MTRs above the level consistent with a competitive market outcome.

### **Size of the buyer and its relative importance to the seller**

6.111 iD Mobile currently has [§< [REDACTED] MVCT supply agreements with other undertakings, with the largest MSP buyer of MVCT from iD Mobile being [§< [REDACTED] [REDACTED]. iD Mobile also has direct interconnection agreements with [§< [REDACTED] FSPs for the purchase of FVCT and other services. ComReg has considered the share of supplied<sup>497</sup> MVCT that is purchased by individual Service Providers directly from iD Mobile, and trends over time.

6.112 Table 23 below shows the relative sizes of all buyers of MVCT from iD Mobile, as well as the biggest sellers of MVCT to iD Mobile following its market entry in 2015, and according to the most recent data at ComReg’s disposal:<sup>498</sup>

<sup>496</sup> The SIR was issued to iD Mobile on 8 July 2016, and a response was received on 2 September 2016.

<sup>497</sup> Some of the figures in the initial periods below must be interpreted with some caution given the low volumes of iD Mobile termination from its initial retail launch, which occurred in August 2015.

<sup>498</sup> [§< [REDACTED]

Accordingly, the data likely overestimate the number of calls terminated to and from the networks listed in Table 23 and Table 24, and underestimate termination traffic to and from other operators.

**Table 23: Largest buyers of iD Mobile MVCT [REDACTED]**

MVCT buyer	Q4 2015	Q1 2017	% Change
[REDACTED]	%	%	%
[REDACTED]	%	%	%
[REDACTED]	%	%	%]

**Table 24: Largest sellers of MVCT to iD Mobile [REDACTED]**

MVCT seller	Q4 2015	Q1 2017	% Change
[REDACTED]	%	%	%
[REDACTED]	%	%	%
[REDACTED]	%	%	%]

6.113 As at Q1 2017, [REDACTED] accounted for the largest share of purchases of iD Mobile-provided MVCT, having increased from a share of [REDACTED] in 2015. In absolute terms, having regard to Table 24 above over the period Q4 2015 to Q1 2017 (the 'Relevant Time Period'), iD Mobile purchases its largest volume of MVCT from [REDACTED], with this having increased from [REDACTED to REDACTED] from 2015 to 2017, while purchases from [REDACTED] have declined over this same period.

6.114 ComReg has also considered the size of each MSP's subscriber base, as set out in Table 25 below, to give a preliminary indicator of the credibility of any attempt by an MSP to use its CBP to constrain another MSP. All other things being equal, if it were possible to exert CBP, it is likely that those MSPs which control a larger share of the market would be best positioned to exert CBP:



**Table 25: MSP subscriber bases as % of overall base, 2013-2017<sup>499</sup>**

MSP	Q1 2013	Q2 2016 <sup>500</sup>	Q1 2017
Vodafone	45%	38%	37%
Three	10%	32%	32%
Meteor	17%	20%	20%
TMI	1%	7%	7%
Lycamobile			
Virgin Media		2%	3%
iD Mobile			
O2	26%		

6.115 iD Mobile's subscriber base is substantially lower than that of Vodafone, Three or eir Mobile (formerly Meteor). Nevertheless, ComReg considers that, given the respective parties' subscriber numbers, each will consider it somewhat important to interconnect (directly or indirectly) with other domestic MSPs,<sup>501</sup> owing to the fact that consumers expect to be able to call subscribers of other Service Providers and the consequential need for Service Providers to ensure as wide as possible interconnection with other Service Providers. It should, however, be noted that these commercial incentives could be somewhat lower in the case of larger MSPs, when dealing with smaller MSPs. Given the comparatively low level of iD Mobile's subscriber base, larger MSPs could still claim to offer wide interconnection for its subscribers, without having concluded direct interconnection with iD Mobile.

6.116 Absent regulation, on a forward looking basis, it is ComReg's view that there may be some commercial incentives to interconnect to a certain degree<sup>502</sup> and, as iD Mobile's subscriber base grows further, may increase. Moreover, given that the MTRs of the 2012 SMP MSPs are regulated, this limits the incentive of the 2012 SMP MSPs to engage in conduct intended to influence the level of MTR payable by a new market entrant. As set out above,<sup>503</sup> ComReg is aware of one (unsuccessful) attempt by a 2012 SMP MSP to negotiate downward the MTR which it was charged by iD Mobile.

<sup>499</sup> The sources of these data are ComReg's Quarterly Key Data Reports for Q1 2013 and Q1 2017.

<sup>500</sup> ComReg started to include Virgin Media and iD Mobile in its QKDR from Q2 2016.

<sup>501</sup> Although not necessarily at any level of MTR.

<sup>502</sup> Although not necessarily on the same terms and conditions that would pertain in the presence of regulation.

<sup>503</sup> See paragraph 6.108 to 6.110 above.

6.117 Overall, for iD Mobile, the size of other MSPs, and Vodafone, Three and eir Mobile in particular, and their relative importance to iD Mobile (particularly in the early years post-launch) may be distinguishing factors which could affect the relative bargaining power between the parties in interconnection negotiations. However, the scope of this bargaining power is likely to be considerably constrained by the fact that the MTRs of the 2012 SMP MSPs are regulated, and the possibility that those purchasing MVCT from iD Mobile consider that ComReg may propose to designate iD Mobile with SMP, such that its own MTRs would also be regulated.

**Credible alternative sources of MVCT supply for the buyer**

6.118 As set out above at paragraphs 5.201 to 5.207, ComReg is of the view that, due to the absence of effective demand-side substitution, buyers of MVCT cannot credibly switch to alternative sources of MVCT in the short term, without incurring significant switching or sunk costs. In this regard, purchasers of MVCT from iD Mobile are unlikely to be able to exercise CBP by switching to, or credibly threatening to switch to, an alternative source of MVCT supply.

**Price sensitivity of the buyer**

6.119 Purchasers of MVCT from iD Mobile are likely to have limited price sensitivity to the MTRs charged by it for two main reasons.

6.120 **Firstly**, subscribers have a general expectation of end-to-end connectivity with all available networks. Thus, any price sensitivity would be somewhat constrained by the need to build a fully comprehensive retail offer which meets this expectation of interoperability and accessibility to other networks – and, hence, to interconnect to iD Mobile, regardless of the MTRs which it charges.

6.121 **Secondly**, a Service Provider's level of price sensitivity to MTRs, including MTRs charged by iD Mobile, is likely to be greater, the greater the proportion of the cost of completing an off-net call accounted for by MTRs. Regulated MTRs now form a relatively lower proportion of retail call costs, compared to when they were unregulated. It is likely that the unregulated MTRs of iD Mobile and Virgin Media have been somewhat conditioned by regulated MTRs, and the potential threat of being regulated. Unregulated MTRs form a higher proportion of retail costs, and ComReg takes the view that purchasers of MVCT from iD Mobile and Virgin Media are likely to be more price sensitive for this reason.

**Evidence of price-setting behaviour and negotiations between operators**

6.122 iD Mobile and Virgin Media are the only MSPs currently active on the Irish market which have not been designated with SMP, and are therefore free to set their MTRs at any level. Table 26 below sets out the development of MTRs since iD Mobile entered the market:

**Table 26: MTRs, 2015 to date**

<b>Vodafone, Three, TMI, Lycamobile</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak, Off-peak and Weekend	2.60	0.84	0.82
<b>Meteor</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak	4.25	0.84	0.82
Off-peak	1.00		
Weekend	1.00		
<b>Virgin Media</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak, Off-peak and Weekend	2.60	2.60	2.60
<b>iD Mobile</b>	<b>H2'15</b>	<b>H2'16</b>	<b>Current</b>
Peak, Off-peak and Weekend	6.00	1.94	1.89

6.123 As set out above, iD Mobile initially launched at an MTR premium to the other 2012 SMP MSPs. In documentation provided to ComReg in its SIR response,<sup>504</sup> iD Mobile indicated that [§< [REDACTED]

6.124 In its SIR response,<sup>505</sup> iD Mobile explained that charging an asymmetric MTR (relative to regulated MTRs) [§< [REDACTED]

6.125 iD Mobile's SIR response suggests that its price-setting behaviour was decided on a unilateral basis [§< [REDACTED] ] and not in response to the exercise of CBP.<sup>507</sup>

<sup>504</sup> As set out in Appendix A4 of iD Mobile's SIR response of 2 September 2016.

<sup>505</sup> As set out in response 4(b) of iD Mobile's SIR response of 2 September 2016.

<sup>506</sup> ComReg does not necessarily concur with iD Mobile's view here. In this respect, it appears that iD Mobile was cross-subsidising its retail business through high MTRs levied on other Service Providers, thus potentially distorting competition.

<sup>507</sup> ComReg does not opine in this section as to whether such cost ought to be legitimately recovered via a MTR.

### **Preliminary conclusion on whether iD Mobile faces effective CBP**

6.126 Having regard to the discussion in paragraphs 6.107 to 6.125 above, ComReg's preliminary view is that no undertaking is likely to be in a position to exert sufficient CBP such that, absent regulation, it would sufficiently constrain iD Mobile's ability to set its MTRs above the level consistent with a competitive market outcome, i.e. there is insufficient CBP to prevent iD Mobile acting in the Relevant MVCT Market independently of competitors, customers and consumers.

### **Analysis of whether CBP is likely to effectively constrain Lycamobile**

6.127 For the reasons set out in paragraphs 6.128 to 6.142 below, given Lycamobile's position in the Relevant FVCT Market, ComReg does not consider it likely that Lycamobile has been, or is likely to be, subject to effective CBP.

#### **Response to Statutory Information Requests**

6.128 Lycamobile, in its response to the 2016 SIR,<sup>508</sup> indicated that it had not experienced CBP as a supplier of MVCT (although this is in the presence of regulation). Lycamobile noted that MTRs charged by both itself and its host network (Three) are regulated.

6.129 ComReg notes Lycamobile's position, which appears to suggest that any CBP would not be effective in constraining Lycamobile's ability to set its MTRs above the level consistent with a competitive market outcome, albeit in the presence of regulation.

#### **Size of the buyer and its relative importance to the seller**

6.130 Lycamobile is directly interconnected with [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

6.131 ComReg has considered the share of supplied MVCT that is purchased by individual Service Providers directly and indirectly interconnected with Lycamobile, and trends over time. Table 27 below shows the relative sizes of all buyers of MVCT provided by Lycamobile, according to the most recent data at ComReg's disposal:

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<sup>508</sup> The SIR was issued to Lycamobile on 8 July 2016, and a response received on 8 September 2016.

**Table 27: Largest buyers of Lycamobile MVCT [REDACTED]**

MVCT buyer	Q4 2015	Q1 2017	% Change
Eircom	[REDACTED%]	[REDACTED%]	[REDACTED%]
BT	[REDACTED%]	[REDACTED%]	[REDACTED%]
Virgin Media (fixed)	[REDACTED%]	[REDACTED%]	[REDACTED%]
Other Fixed	[REDACTED%]	[REDACTED%]	[REDACTED%]
3	[REDACTED%]	[REDACTED%]	[REDACTED%]
Eir Group Mobile	[REDACTED%]	[REDACTED%]	[REDACTED%]
TMI	[REDACTED%]	[REDACTED%]	[REDACTED%]
Vodafone	[REDACTED%]	[REDACTED%]	[REDACTED%]
Other Mobile	[REDACTED%]	[REDACTED%]	[REDACTED%]

**Table 28: Largest sellers of MVCT to Lycamobile [REDACTED]**

MVCT seller	Q4 2015	Q1 2017	% Change
3	[REDACTED%]	[REDACTED%]	[REDACTED%]
TMI	[REDACTED%]	[REDACTED%]	[REDACTED%]
Vodafone	[REDACTED%]	[REDACTED%]	[REDACTED%]
Other Mobile	[REDACTED%]	[REDACTED%]	[REDACTED%]

6.132 As at Q1 2017, [REDACTED]  
[REDACTED]  
[REDACTED]. In absolute terms, over the period 2015 to Q1 2017 (the 'Relevant Time Period'), Lycamobile's own purchases of MVCT from [REDACTED] have increased, largely at the expense of [REDACTED].

- 6.133 As set out in Table 25 above, Lycamobile's subscriber base is substantially lower than that of Vodafone, Three or eir Mobile. Nevertheless, ComReg considers that, given the respective parties' subscriber numbers, they will consider it somewhat important to interconnect with other domestic MSPs,<sup>509</sup> as consumers expect to be able to call subscribers of other Service Providers and the consequential need for Service Providers to ensure as wide as possible interconnection with other Service Providers. It should, however, be noted that these commercial incentives could be somewhat lower in the case of larger MSPs. Given the comparatively low level of Lycamobile's subscriber base, larger MSPs could still claim to offer wide interconnection for its subscribers, without having concluded direct interconnection with Lycamobile.
- 6.134 Absent regulation, on a forward looking basis, it is ComReg's view that there may be some commercial incentives to interconnect to a certain degree<sup>510</sup> and, as Lycamobile's subscriber base grows further, may increase. Moreover, given that the MTRs of the 2012 SMP MSPs are price regulated, this limits their incentive to engage in conduct intended to influence the level of MTR payable by a new market entrant.
- 6.135 Overall, for Lycamobile, the size of other MSPs, and Vodafone, Three and eir Mobile in particular, and their relative importance to Lycamobile may be distinguishing factors which could affect the relative bargaining power between the parties in interconnection negotiations. However, the scope of this bargaining power is likely to be considerably constrained by the fact that the MTRs of the 2012 SMP MSPs (including Lycamobile) are regulated.

**Credible alternative sources of MVCT supply for the buyer**

- 6.136 As set out above at paragraphs 5.201 to 5.207 ComReg is of the view that, in the absence of effective demand-side substitution possibilities, buyers of MVCT cannot credibly switch to alternative sources of MVCT in the short term without incurring significant switching or sunk costs. In this regard, purchasers of MVCT from Lycamobile are unlikely to be able to exercise effective CBP by switching to, or credibly threatening to switch to, an alternative source of MVCT supply.

**Price sensitivity of the buyer**

- 6.137 Purchasers of MVCT from Lycamobile are likely to have limited price sensitivity to the MTRs charged by it, given that current MTRs are subject to regulation. As its retail subscribers would have a general expectation of end-to-end connectivity with all available networks, any price sensitivity on the part of Lycamobile is likely to be somewhat constrained by the need to build a fully comprehensive retail offer which meets the general expectation of interoperability and accessibility to other networks.

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<sup>509</sup> Although not necessarily at any level of MTR.

<sup>510</sup> Although not necessarily on the terms and conditions that would pertain in the presence of regulation.

- 6.138 Given that the MTRs of the 2012 SMP MSPs are regulated at a common level, purchasers of MVCT from Lycamobile are likely to have limited price sensitivity with respect to the MTRs it charges, as no MTR asymmetries arise. However, having regard to the historical pricing behaviour of Lycamobile (prior to regulation), purchasers of MVCT would likely be price sensitive absent regulation.
- 6.139 Moreover, a Service Provider's level of price sensitivity to MTRs is likely to be greater, the greater the proportion of the cost of completing an off-net call accounted for by MTRs. Regulated MTRs now form a relatively lower proportion of retail call costs, compared to when they were unregulated. Data set out at Table 21 indicate that, prior to its SMP designation, Lycamobile charged MTRs far in excess of the SMP-based MTRs. Unregulated MTRs tend to form a higher proportion of retail costs, and ComReg takes the view that the price sensitivity of purchasers of MVCT from Lycamobile is likely to be currently lower than it otherwise would be due to the effectiveness of SMP regulation in reducing MTRs to the levels which would be expected to obtain in a competitive market. Absent regulation, it is likely that Lycamobile would have the ability and incentive to raise its MTRs to supra-competitive levels, leading to increased price sensitivity on the part of purchasers of MVCT from Lycamobile, as these higher MTRs form a larger proportion of retail call costs.

**Evidence of price-setting behaviour and negotiations between operators**

- 6.140 Like other 2012 SMP MSPs, Lycamobile is subject to price regulation pursuant to the 2012 MVCT Decision and the 2016 MTR Decision.<sup>511</sup> As such, it has been constrained through the presence of regulation when negotiating in respect of the level at which it sets its MTRs. This is confirmed by Lycamobile in its response to the SIR issued to it by ComReg.<sup>512</sup>
- 6.141 Lycamobile's MTRs have been reduced on a number of occasions since the 2012 MVCT Decision as a result of regulatory obligations imposed by ComReg in that decision, rather than necessarily as a result of CBP being exercised by other Service Providers over Lycamobile.
- 6.142 Accordingly, an examination of Lycamobile's price-setting behaviour would not be a useful means of assessing the nature of any CBP exercised over it to date. ComReg does, however, note that prior to regulation, Lycamobile's MTRs were significantly higher than their current levels, as noted in the 2012 MVCT Decision. ComReg has instead analysed above the credibility of the ways in which other Service Providers could potentially exert CBP over Lycamobile if *ex ante* regulation were removed.

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<sup>511</sup> Decision D02/16, "Mobile Termination Rates: Response to Consultation 14/29 and Supplementary Consultation 15/19 and Decision Document" (the '2016 MTR Decision').

<sup>512</sup> See paragraphs 6.127 to 6.135 above.

### **Preliminary conclusion on whether Lycamobile faces effective CBP**

6.143 Having regard to the discussion in paragraphs 6.127 to 6.142 above, ComReg's preliminary view is that no undertaking is likely to be able to exert sufficient CBP such that, absent regulation, it would sufficiently constrain Lycamobile's ability to set MTRs above the level consistent with a competitive market outcome. There is insufficient CBP to prevent Lycamobile acting in the Relevant MVCT Market independently of competitors, customers and consumers.

### **Analysis of whether CBP is likely to effectively constrain eir Mobile**

6.144 For the reasons set out in paragraphs 6.145 to 6.159 below, given its position in the Relevant FVCT Market, ComReg does not consider it likely that eir Mobile has been, or is likely to be, subject to effective CBP.

#### **Response to Statutory Information Requests**

6.145 eir Mobile, in its response to the 2016 SIR (while branded as Meteor),<sup>513</sup> indicated that it was unable to determine the presence or level of CBP when setting MTRs, due to the fact that, as an SMP MSP, it is subject to price controls.

6.146 ComReg notes eir Mobile's position and the correspondence with another MSP which it provided, which appears to suggest that any CBP would not be effective in constraining an MSP in setting its MTRs above the level consistent with a competitive market outcome, albeit in the presence of regulation.

#### **Size of the buyer and its relative importance to the seller**

6.147 eir Mobile currently has [redacted] MVCT supply agreements with other undertakings. ComReg has considered the share of supplied MVCT that is purchased by individual Service Providers directly and indirectly interconnected with eir Mobile, and trends over time.

6.148 Table 29 below shows the relative sizes of all buyers of MVCT provided by eir Mobile, according to the most recent data at ComReg's disposal:

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<sup>513</sup> The SIR was issued to Meteor on 8 July 2016, and a response was received on 2 September 2016.



**Table 29: Largest buyers of Meteor MVCT [REDACTED]**

MVCT buyer	Q1 2015	Q1 2017	% Change
Eircom	[REDACTED%]	[REDACTED%]	[REDACTED%]
BT	[REDACTED%]	[REDACTED%]	[REDACTED%]
Virgin Media (fixed)	[REDACTED%]	[REDACTED%]	[REDACTED%]
3	[REDACTED%]	[REDACTED%]	[REDACTED%]
Virgin Media (mobile)	[REDACTED%]	[REDACTED%]	[REDACTED%]
Vodafone	[REDACTED%]	[REDACTED%]	[REDACTED%]

**Table 30: Largest sellers of MVCT to Meteor [REDACTED]**

MVCT seller	Q1 2015	Q1 2017	% Change
3	[REDACTED%]	[REDACTED%]	[REDACTED%]
Lycamobile	[REDACTED%]	[REDACTED%]	[REDACTED%]
TMI	[REDACTED%]	[REDACTED%]	[REDACTED%]
Virgin Media	[REDACTED%]	[REDACTED%]	[REDACTED%]
Vodafone	[REDACTED%]	[REDACTED%]	[REDACTED%]

6.149 As at Q1 2017, [REDACTED] accounted for [REDACTED%] of the total share of Meteor-provided MVCT, having increased from a share of [REDACTED%] in 2015. In absolute terms, over the same time period, Meteor's own purchases of MVCT from [REDACTED] remained static at [REDACTED%].

6.150 As set out in Table 25 above, ComReg has also considered the size of each MSP's subscriber base relative to eir Mobile's subscriber base. eir Mobile's subscriber base is lower than that of Vodafone and Three. Even so, ComReg considers that, given the respective parties' subscriber numbers, they will consider it somewhat important to interconnect with other domestic MSPs,<sup>514</sup> owing to the fact that consumers expect to be able to call subscribers of other Service Providers and the consequential need for Service Providers to ensure as wide as possible interconnection with other Service Providers. As a consequence, ComReg considers that it would be similarly important for eir Mobile to interconnect with other MSPs as it is for those MSPs to interconnect with eir Mobile. Absent regulation, on a forward looking basis, it is ComReg's view that there may be some commercial incentives to interconnect, although not necessarily on the same terms and conditions that would pertain in the presence of regulation.

6.151 Overall, for eir Mobile, it is ComReg's preliminary view that the size of other MSPs as buyers of MVCT and their relative importance to eir Mobile are not likely to be distinguishing factors which would materially rebalance the relative bargaining power between the parties in interconnection negotiations. Moreover, the scope for any bargaining power is likely to be considerably constrained by the fact that the MTRs of the 2012 SMP MSPs are regulated.

**Credible alternative sources of MVCT supply for the buyer**

6.152 As set out above at paragraphs 5.201 to 5.207, ComReg is of the view that, in the absence of effective demand-side substitution possibilities, buyers of MVCT cannot credibly switch to alternative sources of MVCT in the short term without incurring significant switching or sunk costs. In this regard, purchasers of MVCT from eir Mobile are unlikely to be able to exercise CBP by switching to, or credibly threatening to switch to, an alternative source of MVCT supply.

**Price sensitivity of the buyer**

6.153 Purchasers of MVCT from eir Mobile are likely to have limited price sensitivity to the MTRs charged by it, given that current MTRs are subject to regulation. As its retail subscribers would have a general expectation of end-to-end connectivity with all available networks, any price sensitivity on the part of eir Mobile is likely to be somewhat constrained by the need to build a fully comprehensive retail offer which meets the general expectation of interoperability and accessibility to other networks.

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<sup>514</sup> Although not necessarily at any level of MTR.

- 6.154 Given that the MTRs of eir Mobile and the other 2012 SMP MSPs are regulated at a common level, purchasers of MVCT from eir Mobile are likely to have limited price sensitivity with respect to the MTRs it charges, as no MTR asymmetries arise. However, having regard to the historical pricing behaviour of eir Mobile (prior to regulation), purchasers of MVCT would likely be price sensitive absent regulation.
- 6.155 Moreover, a Service Provider's level of price sensitivity to MTRs is likely to be greater, the greater the proportion of the cost of completing an off-net call accounted for by MTRs. Regulated MTRs now form a relatively lower proportion of retail call costs, compared to when they were unregulated. Unregulated MTRs tend to form a higher proportion of retail costs, and ComReg takes the view that the price sensitivity of purchasers of MVCT from eir Mobile is likely to be currently lower than it otherwise would be due to the effectiveness of SMP regulation in reducing MTRs to the levels which would be expected to obtain in a competitive market. Absent regulation, it is likely that eir Mobile would have the ability and incentive to raise its MTRs to supra-competitive levels, leading to increased price sensitivity on the part of purchasers of MVCT from eir Mobile, as these higher MTRs form a larger proportion of retail call costs.

#### **Evidence of price-setting behaviour and negotiations between operators**

- 6.156 Like other 2012 SMP MSPs, eir Mobile is subject to price regulation pursuant to the 2012 MVCT Decision and the 2016 MTR Decision. As such, it has been constrained through the presence of regulation when negotiating in respect of the level at which it sets its MTRs. This is confirmed by eir Mobile (responding as Meteor) in its response to the SIR issued to it by ComReg.
- 6.157 eir Mobile's MTRs have been reduced on a number of occasions since the 2012 MVCT Decision as a result of regulatory obligations imposed by ComReg in that decision, rather than necessarily as a result of CBP being exercised by other Service Providers over eir Mobile.
- 6.158 Accordingly, an examination of eir Mobile's price-setting behaviour would not be a useful means of assessing the nature of any CBP exercised over it to date. ComReg has instead analysed above the credibility of the ways in which other Service Providers could potentially exert CBP over eir Mobile if *ex ante* regulation were removed.

#### **Preliminary conclusion on whether eir Mobile faces effective CBP**

- 6.159 Having regard to the discussion in paragraphs 6.144 to 6.158 above, ComReg's preliminary view is that no undertaking is likely to be in a position to exert sufficient CBP such that, absent regulation, it would sufficiently constrain eir Mobile's ability to set its MTRs above the level consistent with a competitive market outcome, i.e. there is insufficient CBP to prevent eir Mobile acting in the Relevant MVCT Market independently of competitors, customers and consumers.

### **Analysis of whether CBP is likely to effectively constrain TMI**

6.160 For the reasons set out in paragraphs 6.161 to 6.175 below, given TMI's position in the Relevant FVCT Market, ComReg does not consider it likely that TMI has been, or is likely to be, subject to effective CBP.

#### **Response to Statutory Information Requests**

6.161 TMI, in its response to the 2016 SIR,<sup>515</sup> indicated that it sets its MTRs independently. It therefore follows that TMI has not experienced CBP as a supplier of MVCT, nor had it exerted CBP as a purchaser of MVCT.

#### **Size of the buyer and its relative importance to the seller**

6.162 TMI currently has [redacted] MVCT supply agreements with other undertakings, with the largest buyers of MVCT from TMI being [redacted]. TMI also has interconnection agreements with [redacted] FSPs for the purchase of FVCT and other services.

6.163 ComReg has considered the share of supplied MVCT that is purchased by individual Service Providers directly and indirectly interconnected with TMI, and trends over time. Table 31 below shows the relative sizes of all buyers of MVCT provided by TMI following its market entry in 2015, and according to the most recent data at ComReg's disposal:

**Table 31: Largest buyers of TMI MVCT [redacted]**

MVCT buyer	2015	Q1 2017	% Change
Eircom	[redacted]%	[redacted]%	[redacted]%
BT	[redacted]%	[redacted]%	[redacted]%
3	[redacted]%	[redacted]%	[redacted]%
Eircom Group Mobile	[redacted]%	[redacted]%	[redacted]%
iD Mobile	[redacted]%	[redacted]%	[redacted]%
Lycamobile	[redacted]%	[redacted]%	[redacted]%
Virgin Media (mobile)	[redacted]%	[redacted]%	[redacted]%
Vodafone	[redacted]%	[redacted]%	[redacted]%

<sup>515</sup> The SIR was issued to TMI on 8 July 2016, and a response was received on 2 September 2016.

**Table 32: Largest sellers of MVCT to TMI [REDACTED]**

MVCT seller	2015	Q1 2017	% Change
<b>3</b>	[REDACTED%]	[REDACTED%]	[REDACTED%]
<b>Eircom Group Mobile</b>	[REDACTED%]	[REDACTED]	[REDACTED%]
<b>iD Mobile</b>	[REDACTED%]	[REDACTED]	[REDACTED%]
<b>Lycamobile</b>	[REDACTED%]	[REDACTED%]	[REDACTED%]
<b>Virgin Media (mobile)</b>	[REDACTED%]	[REDACTED]	[REDACTED%]
<b>Vodafone</b>	[REDACTED%]	[REDACTED%]	[REDACTED%]

6.164 As at Q1 2017, [REDACTED] accounted for [REDACTED%] of the total share of TMI-provided MVCT, having increased marginally from a share of [REDACTED%] in 2015. In absolute terms, over the period 2015 to Q1 2017, TMI's own purchases of MVCT from [REDACTED] increased by [REDACTED%].

6.165 As set out in Table 25 above, TMI's subscriber base is lower than that of Vodafone, Three or eir Mobile, but greater than that of Lycamobile, Virgin Media, or iD Mobile. Nevertheless, ComReg considers that, given the respective parties' subscriber numbers, they will consider it somewhat important to interconnect with other domestic MSPs,<sup>516</sup> owing to the fact that consumers expect to be able to call subscribers of other Service Providers and the consequential need for Service Providers to ensure as wide as possible interconnection with other Service Providers.

6.166 Absent regulation, on a forward looking basis, it is ComReg's view that there may be some commercial incentives to interconnect to a certain degree<sup>517</sup> and, as TMI's subscriber base grows further, may increase. Moreover, given that the MTRs of the 2012 SMP MSPs are price regulated, this limits the incentive of SMP MSPs to engage in conduct intended to influence the level of MTR payable by a new market entrant.

6.167 Overall, for TMI, the size of other MSPs, and Vodafone, Three and eir Mobile in particular, and their relative importance to TMI may be distinguishing factors which could affect the relative bargaining power between the parties in interconnection negotiations. However, the scope of this bargaining power is likely to be considerably constrained by the fact that the MTRs of the 2012 SMP MSPs (including TMI) are regulated.

<sup>516</sup> Although not necessarily at any level of MTR.

<sup>517</sup> Although not necessarily on the same terms and conditions that would pertain in the presence of regulation.

**Credible alternative sources of MVCT supply for the buyer**

6.168 As set out above at paragraphs 5.201 to 5.207 above, ComReg is of the view that, in the absence of effective demand-side substitution possibilities, buyers of MVCT cannot credibly switch to alternative sources of MVCT in the short term without incurring significant switching or sunk costs. In this regard, purchasers of MVCT from TMI are unlikely to be able to exercise CBP by switching to, or credibly threatening to switch to, an alternative source of MVCT supply.

**Price sensitivity of the buyer**

6.169 Purchasers of MVCT from TMI are likely to have limited price sensitivity to the MTRs charged by it, given that current MTRs are subject to regulation. As its retail subscribers would have a general expectation of end-to-end connectivity with all available networks, any price sensitivity on the part of TMI is likely to be somewhat constrained by the need to build a fully comprehensive retail offer which meets the general expectation of interoperability and accessibility to other networks.

6.170 Given that the MTRs of TMI and the other 2012 SMP MSPs are regulated at a common level, purchasers of MVCT from TMI are likely to have limited price sensitivity with respect to the MTRs it charges, as no MTR asymmetries arise. However, having regard to the historical pricing behaviour of TMI (prior to regulation), purchasers of MVCT would likely be price sensitive absent regulation.

6.171 Moreover, a Service Provider's level of price sensitivity to MTRs is likely to be greater, the greater the proportion of the cost of completing an off-net call accounted for by MTRs. Regulated MTRs now form a relatively lower proportion of retail call costs, compared to when they were unregulated. Data set out at Table 21 indicate that, prior to its SMP designation, TMI charged MTRs far in excess of the SMP-based MTRs. Unregulated MTRs tend to form a higher proportion of retail costs, and ComReg takes the view that the price sensitivity of purchasers of MVCT from TMI is likely to be currently lower than it otherwise would be due to the effectiveness of SMP regulation in reducing MTRs to the levels which would be expected to obtain in a competitive market. Absent regulation, it is likely that TMI would have the ability and incentive to raise its MTRs to supra-competitive levels, leading to increased price sensitivity on the part of purchasers of MVCT from TMI, as these higher MTRs form a larger proportion of retail call costs.

**Evidence of price-setting behaviour and negotiations between operators**

- 6.172 Like other 2012 SMP MSPs, TMI is subject to price regulation pursuant to the 2012 MVCT Decision and the 2016 MTR Decision. As such, it has been constrained through the presence of regulation when negotiating in respect of the level at which it sets its MTRs. This is confirmed by TMI in its response to the SIR issued to it by ComReg.
- 6.173 TMI's MTRs have been reduced on a number of occasions since the 2012 MVCT Decision as a result of regulatory obligations imposed by ComReg in that decision, rather than necessarily as a result of CBP being exercised by other Service Providers over TMI.
- 6.174 Accordingly, an examination of TMI's price-setting behaviour would not be a useful means of assessing the nature of any CBP exercised over it to date. ComReg does, however, note that prior to regulation, TMI's MTRs were significantly higher than their current levels, as noted in the 2012 MVCT Decision. ComReg has instead analysed above the credibility of the ways in which other Service Providers could potentially exert CBP over TMI if *ex ante* regulation were removed.

**Preliminary conclusion on whether TMI faces effective CBP**

- 6.175 Having regard to the discussion in paragraphs 6.160 to 6.174 above, ComReg's preliminary view is that no undertaking is likely to be in a position to exert sufficient CBP such that, absent regulation, it would sufficiently constrain TMI's ability to set its MTRs above the level consistent with a competitive market outcome, i.e. there is insufficient CBP to prevent TMI acting in the Relevant MVCT Market independently of competitors, customers and consumers.

**Analysis of whether CBP is likely to effectively constrain Three**

- 6.176 For the reasons set out in paragraphs 6.177 to 6.190 below, given Three's position in the Relevant FVCT Market, ComReg does not consider it likely that Three has been, or is likely to be, subject to effective CBP.

**Response to Statutory Information Requests**

- 6.177 Three, in its response to the 2016 SIR,<sup>518</sup> indicated that it had not experienced CBP with respect to the setting of MTRs at any point over the past three years (although this is in the presence of regulation). ComReg notes Three's position, which appears to suggest that any CBP would not be effective in terms of its ability to constrain Three in setting its MTRs above the level consistent with a competitive market outcome, albeit in the presence of regulation.

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<sup>518</sup> The SIR was issued to Three on 8 July 2016, and a response was received on 2 September 2016.

**Size of the buyer and its relative importance to the seller**

6.178 Three currently has [REDACTED] MVCT supply agreements with other undertakings. Three also has interconnection agreements with [REDACTED] FSPs for the purchase of FVCT and other services.

6.179 ComReg has considered the share of supplied MVCT that is purchased by individual Service Providers directly and indirectly interconnected with Three, and trends over time. Table 33 below shows the relative sizes of all buyers of MVCT provided by Three, according to the most recent data at ComReg's disposal:

**Table 33: Largest buyers of Three MVCT [REDACTED]**

MVCT buyer	Q4 2015	Q1 2017	% Change
Eircom	[REDACTED]%	[REDACTED]%	[REDACTED]%
BT	[REDACTED]%	[REDACTED]%	[REDACTED]%
Virgin Media (fixed)	[REDACTED]%	[REDACTED]%	[REDACTED]%
Eircom Group Mobile	[REDACTED]%	[REDACTED]%	[REDACTED]%
iD Mobile	[REDACTED]%	[REDACTED]%	[REDACTED]%
Lycamobile	[REDACTED]%	[REDACTED]%	[REDACTED]%
TMI	[REDACTED]%	[REDACTED]%	[REDACTED]%
Virgin Media (mobile)	[REDACTED]%	[REDACTED]%	[REDACTED]%
Vodafone	[REDACTED]%	[REDACTED]%	[REDACTED]%

**Table 34: Largest sellers of MVCT to Three [REDACTED]**

MVCT seller	Q1 2015	Q1 2017	% Change
Eircom Group Mobile	[REDACTED]%	[REDACTED]%	[REDACTED]%
iD Mobile	[REDACTED]%	[REDACTED]%	[REDACTED]%
Lycamobile	[REDACTED]	[REDACTED]%	[REDACTED]%
TMI	[REDACTED]%	[REDACTED]%	[REDACTED]%
Virgin Media (mobile)	[REDACTED]	[REDACTED]%	[REDACTED]%
Vodafone	[REDACTED]%	[REDACTED]%	[REDACTED]%

6.180 As at Q1 2017, [REDACTED] accounted for [REDACTED]% of the total share of Three-provided MVCT, having increased from a share of [REDACTED]% in 2015. In absolute terms, over the period Q1 2015 to Q1 2017, Three's own purchases of MVCT from [REDACTED] have remained largely static, with a [REDACTED] in purchases.



- 6.181 As set out in Table 25 above, ComReg has also considered the size of each MSP's subscriber base relative to Three's subscriber base. Three's subscriber base is second only to that of Vodafone, approaching one third of all subscribers. ComReg accordingly considers that, given the respective parties' subscriber numbers, they will consider it important to interconnect with other domestic MSPs,<sup>519</sup> owing to the fact that consumers expect to be able to call subscribers of other Service Providers and the consequential need for Service Providers to ensure as wide as possible interconnection with other Service Providers. As a consequence, ComReg considers that it would be similarly important for Three to interconnect with other MSPs as it is for those MSPs to interconnect with Three. Absent regulation, on a forward looking basis, it is ComReg's view that there may be some commercial incentives to interconnect, although not necessarily on the same terms and conditions that would pertain in the presence of regulation.
- 6.182 Overall, for Three, it is ComReg's preliminary view that the size of other MSPs as buyers of MVCT and their relative importance to Three are not likely to be distinguishing factors which would materially rebalance the relative bargaining power between the parties in interconnection negotiations. Moreover, the scope for any bargaining power is likely to be considerably constrained by the fact that the MTRs of the 2012 SMP MSPs are regulated.

**Credible alternative sources of MVCT supply for the buyer**

- 6.183 As set out above at paragraphs 5.201 to 5.207, ComReg is of the view that, in the absence of effective demand-side substitution possibilities, buyers of MVCT cannot credibly switch to alternative sources of MVCT in the short term without incurring significant switching or sunk costs. In this regard, purchasers of MVCT from Three are unlikely to be able to exercise CBP by switching to, or credibly threatening to switch to, an alternative source of MVCT supply.

**Price sensitivity of the buyer**

- 6.184 Purchasers of MVCT from Three are likely to have limited price sensitivity to the MTRs charged by it, given that current MTRs are subject to regulation. As its retail subscribers would have a general expectation of end-to-end connectivity with all available networks, any price sensitivity on the part of Three is likely to be somewhat constrained by the need to build a fully comprehensive retail offer which meets the general expectation of interoperability and accessibility to other networks.

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<sup>519</sup> Although not necessarily at any level of MTR.

- 6.185 Given that the MTRs of Three and the other 2012 SMP MSPs are regulated at a common level, purchasers of MVCT from Three are likely to have limited price sensitivity with respect to the MTRs it charges, as no MTR asymmetries arise. However, having regard to the historical pricing behaviour of Three (prior to regulation), purchasers of MVCT would likely be price sensitive absent regulation.
- 6.186 Moreover, a Service Provider's level of price sensitivity to MTRs is likely to be greater, the greater the proportion of the cost of completing an off-net call accounted for by MTRs. Regulated MTRs now form a relatively lower proportion of retail call costs, compared to when they were unregulated. Unregulated MTRs tend to form a higher proportion of retail costs, and ComReg takes the view that the price sensitivity of purchasers of MVCT from Three is likely to be currently lower than it otherwise would be due to the effectiveness of SMP regulation in reducing MTRs to the levels which would be expected to obtain in a competitive market. Absent regulation, it is likely that Three would have the ability and incentive to raise its MTRs to supra-competitive levels, leading to increased price sensitivity on the part of purchasers of MVCT from Three, as these higher MTRs form a larger proportion of retail call costs.

**Evidence of price-setting behaviour and negotiations between operators**

- 6.187 Like other 2012 SMP MSPs, Three is subject to price regulation pursuant to the 2012 MVCT Decision and the 2016 MTR Decision. As such, it has been constrained through the presence of regulation when negotiating in respect of the level at which it sets its MTRs. This is confirmed by Three in its response to the SIR issued to it by ComReg.
- 6.188 Three's MTRs have been reduced on a number of occasions since the 2012 MVCT Decision as a result of regulatory obligations imposed by ComReg in that decision, rather than necessarily as a result of CBP being exercised by other Service Providers over Three.
- 6.189 Accordingly, an examination of Three's price-setting behaviour would not be a useful means of assessing the nature of any CBP exercised over it to date. ComReg has instead analysed above the credibility of the ways in which other Service Providers could potentially exert CBP over Three if *ex ante* regulation were removed.

**Preliminary conclusion on whether Three faces effective CBP**

- 6.190 Having regard to the discussion in paragraphs 6.176 to 6.189 above, ComReg's preliminary view is that no undertaking is likely to be in a position to exert sufficient CBP such that, absent regulation, it would sufficiently constrain Three's ability to set its MTRs above the level consistent with a competitive market outcome, i.e. there is insufficient CBP to prevent Three acting in the Relevant MVCT Market independently of competitors, customers and consumers.

### Analysis of whether CBP is likely to effectively constrain Virgin Media

6.191 For the reasons set out in paragraphs 6.192 to 6.205 below, given Virgin Media's position in the Relevant FVCT Market, ComReg does not consider it likely that Virgin Media has been, or is likely to be, subject to effective CBP.

#### Response to Statutory Information Requests

6.192 Virgin Media, in its response to the 2016 SIR,<sup>520</sup> indicated that it had not experienced CBP as a supplier of MVCT, since its entry into the market (though this is in the presence of regulation in respect of the 2012 SMP MSPs).

#### Size of the buyer and its relative importance to the seller

6.193 Virgin Media currently has [REDACTED] MVCT supply agreements with other undertakings, with the largest MSP buyer of MVCT from Virgin Media being [REDACTED]. Virgin Media also has interconnection agreements with [REDACTED] FSPs for the purchase of FVCT and other services.

6.194 ComReg has considered the share of supplied<sup>521</sup> MVCT that is purchased by individual Service Providers directly and indirectly interconnected with Virgin Media, and trends over time. Table 35 below shows the relative sizes of all buyers of MVCT provided by Virgin Media following its market entry in 2015, and according to the most recent data at ComReg's disposal:

**Table 35: Largest buyers of Virgin Media MVCT [REDACTED]**

MVCT buyer	Q4 2015	Q1 2017	% Change
Eircom	[REDACTED]%	[REDACTED]%	[REDACTED]%
BT	[REDACTED]%	[REDACTED]%	[REDACTED]%
3	[REDACTED]%	[REDACTED]%	[REDACTED]%
Vodafone	[REDACTED]%	[REDACTED]%	[REDACTED]%
Eircom Group Mobile	[REDACTED]%	[REDACTED]%	[REDACTED]%

**Table 36: Largest sellers of MVCT to Virgin Media [REDACTED]**

MVCT seller	Q4 2015	Q1 2017	% Change
3	[REDACTED]%	[REDACTED]%	[REDACTED]%
Eircom Group Mobile	[REDACTED]	[REDACTED]%	[REDACTED]%
TMI	[REDACTED]%	[REDACTED]%	[REDACTED]%
Vodafone	[REDACTED]%	[REDACTED]%	[REDACTED]%

<sup>520</sup> The SIR was issued to Virgin Media on 8 July 2016, and a response received on 2 September 2016.

<sup>521</sup> Some of the figures in the initial periods below must be interpreted with some caution given the low volumes of Virgin Media termination sales and purchases from its initial retail launch, which occurred in October 2015.

- 6.195 As at Q1 2017, [redacted] accounted for [redacted%] of the total share of Virgin Media-provided MVCT, the same proportion as in 2015. In absolute terms, over the period 2015 to Q1 2017, Virgin Media's own purchases of MVCT from [redacted] dropped by [redacted%].
- 6.196 ComReg has also considered the size of each MSP's subscriber base, as set out in Table 25 above. That table shows that Virgin Media's subscriber base is substantially lower than that of Vodafone, Three or eir Mobile. Nevertheless, ComReg considers that, given the respective parties' subscriber numbers, they will consider it somewhat important to interconnect with other domestic MSPs,<sup>522</sup> owing to the fact that consumers expect to be able to call subscribers of other Service Providers and the consequential need for Service Providers to ensure as wide as possible interconnection with other Service Providers. It should, however, be noted that these commercial incentives could be somewhat lower in the case of larger MSPs. Given the comparatively low level of Virgin Media's subscriber base, larger MSPs could still claim to offer wide interconnection for their subscribers, without having concluded direct interconnection with Virgin Media.
- 6.197 Absent regulation, on a forward looking basis, it is ComReg's view that there may be some commercial incentives to interconnect to a certain degree<sup>523</sup> and, as Virgin Media's subscriber base grows further, may increase, particularly given that it already holds a large legacy subscriber base from its TV and broadband offerings. Moreover, given that the MTRs of the 2012 SMP MSPs are price regulated, this limits the incentive of the 2012 SMP MSPs to engage in conduct intended to influence the level of MTR payable by a new market entrant, such as Virgin Media.
- 6.198 Overall, for Virgin Media, the size of other MSPs, in particular Vodafone, Three and eir Mobile, and their relative importance to Virgin Media (particularly in the early years post-launch) may be distinguishing factors which could affect the relative bargaining power between the parties in interconnection negotiations. However, the scope of this bargaining power is likely to be considerably constrained by the fact that the MTRs of the 2012 SMP MSPs are regulated, and the potential for Virgin Media to be designated with SMP.

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<sup>522</sup> Although not necessarily at any level of MTR.

<sup>523</sup> Although not necessarily on the same terms and conditions that would pertain in the presence of regulation.

**Credible alternative sources of MVCT supply for the buyer**

6.199 As set out above at paragraphs 5.201 to 5.207 above, ComReg is of the view that, in the absence of effective demand-side substitution possibilities, buyers of MVCT cannot credibly switch to alternative sources of MVCT in the short term without incurring significant switching or sunk costs. In this regard, purchasers of MVCT from Virgin Media are unlikely to be able to exercise effective CBP by switching to, or credibly threatening to switch to, an alternative source of MVCT supply.

**Price sensitivity of the buyer**

6.200 Purchasers of MVCT from Virgin Media may have limited price sensitivity to the MTRs charged by it for two main reasons.

6.201 **Firstly**, subscribers have a general expectation of end-to-end connectivity with all available networks. Thus, any price sensitivity would be somewhat constrained by the need to build a fully comprehensive retail offer which meets this expectation of interoperability and accessibility to other networks – and, hence, to interconnect to Virgin Media, regardless of the MTRs which it charges.

6.202 **Secondly**, a Service Provider's level of price sensitivity to MTRs, including MTRs charged by Virgin Media, is likely to be greater, the greater the proportion of the cost of completing an off-net call accounted for by MTRs. Regulated MTRs now form a relatively lower proportion of retail call costs, compared to when they were unregulated. It is likely that the unregulated MTRs of iD Mobile and Virgin Media have been somewhat conditioned by regulated MTRs, and the potential threat of being regulated. Unregulated MTRs form a higher proportion of retail costs, and ComReg takes the view that purchasers of MVCT from iD Mobile and Virgin Media are likely to be more price sensitive for this reason.

**Evidence of price-setting behaviour and negotiations between operators**

6.203 As set out at Table 26 above, Virgin Media initially launched at MTR parity to the 2012 SMP MSPs (2.6c per minute). However, as the 2012 SMP MSPs reduced their MTRs pursuant to regulation, Virgin Media has retained its MTR at 2.6c per minute, such that its MTR is now more than 300% greater than the regulated MTR rate.

6.204 [Redacted], ComReg has not been provided with evidence of efforts by other MSPs to negotiate lower MTRs with Virgin Media, particularly when its rate began to diverge from the regulated MTR levels in September 2016.

### **Preliminary conclusion on whether Virgin Media faces effective CBP**

6.205 Having regard to the discussion in paragraphs 6.191 to 6.204 above, ComReg's preliminary view is that no undertaking is likely to be in a position to exert effective CBP such that, absent regulation, it would sufficiently constrain Virgin Media's ability to set its MTRs above the level consistent with a competitive market outcome, i.e. there is insufficient CBP to prevent Virgin Media acting in the Relevant MVCT Market independently of competitors, customers and consumers.

### **Analysis of whether CBP is likely to effectively constrain Vodafone**

6.206 For the reasons set out in paragraphs 6.207 to 6.220 below, given Vodafone's position in the Relevant FVCT Market, ComReg does not consider it likely that Vodafone has been, or is likely to be, subject to effective CBP.

#### **Response to Statutory Information Requests**

6.207 Vodafone, in its response to the 2016 SIR,<sup>524</sup> indicated that it had not experienced CBP as a supplier of MVCT, nor had it exerted CBP as a purchaser of MVCT (although this is in the presence of regulation). Vodafone suggested that, since MTRs charged by the 2012 SMP MSPs are regulated, all operators accept these MTRs, and have no opportunity to apply CBP.

6.208 ComReg notes Vodafone's position, which appears to suggest that any CBP would not be effective in terms of its ability to constrain Vodafone in setting its MTRs above the level consistent with a competitive market outcome, albeit in the presence of regulation.

#### **Size of the buyer and its relative importance to the seller**

6.209 Vodafone currently has [redacted] MVCT supply agreements with other undertakings. ComReg has considered the share of supplied MVCT that is purchased by individual Service Providers directly and indirectly interconnected with Vodafone, and trends over time. Table 37 below shows the relative sizes of all buyers of MVCT provided by Vodafone, and according to the most recent data at ComReg's disposal:

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<sup>524</sup> The SIR was issued to Vodafone on 8 July 2016, and a response was received on 5 September 2016.

**Table 37: Largest buyers of Vodafone MVCT [REDACTED]**

MVCT buyer	Q1 2015	Q1 2017	% Change
Eircom	[REDACTED]	[REDACTED]	[REDACTED]
BT	[REDACTED]	[REDACTED]	[REDACTED]
Virgin Media (fixed)	[REDACTED]	[REDACTED]	[REDACTED]
Other Fixed	[REDACTED]	[REDACTED]	[REDACTED]
3	[REDACTED]	[REDACTED]	[REDACTED]
Eircom Group Mobile	[REDACTED]	[REDACTED]	[REDACTED]
iD Mobile	[REDACTED]	[REDACTED]	[REDACTED]
Lycamobile	[REDACTED]	[REDACTED]	[REDACTED]
TMI	[REDACTED]	[REDACTED]	[REDACTED]
Virgin Media (mobile)	[REDACTED]	[REDACTED]	[REDACTED]

**Table 38: Largest sellers of MVCT to Vodafone [REDACTED]**

MVCT seller	Q1 2015	Q1 2017	% Change
3	[REDACTED]	[REDACTED]	[REDACTED]
Eircom Group Mobile	[REDACTED]	[REDACTED]	[REDACTED]
iD Mobile	[REDACTED]	[REDACTED]	[REDACTED]
Lycamobile	[REDACTED]	[REDACTED]	[REDACTED]
TMI	[REDACTED]	[REDACTED]	[REDACTED]
Virgin Media (mobile)	[REDACTED]	[REDACTED]	[REDACTED]

6.210 As at Q1 2017, [REDACTED] accounted for [REDACTED] of the total share of Vodafone-provided MVCT, a 2% drop from Q4 2015. In absolute terms, over the period Q4 2015 to Q1 2017, Vodafone's own purchases of MVCT from [REDACTED] have remained steady at [REDACTED].

6.211 As set out in Table 25 above, ComReg has also considered the size of each MSP's subscriber base relative to Vodafone's subscriber base. Vodafone's subscriber base is the largest of any MSP, exceeding one third of all subscribers. ComReg accordingly considers that, given the respective parties' subscriber numbers, they may consider it important to interconnect with other domestic MSPs,<sup>525</sup> owing to the fact that consumers expect to be able to call subscribers of other Service Providers and the consequential need for Service Providers to ensure as wide as possible interconnection with other Service Providers. As a consequence, ComReg considers that it may be similarly important for Vodafone to interconnect with other MSPs as it is for those MSPs to interconnect with Vodafone. Absent regulation, on a forward looking basis, it is ComReg's view that there may be some commercial incentives to interconnect, although not necessarily on the same terms and conditions that would pertain in the presence of regulation.

6.212 Overall, for Vodafone, it is ComReg's preliminary view that the size of other MSPs as buyers of MVCT and their relative importance to Vodafone are not likely to be distinguishing factors which would materially rebalance the relative bargaining power between the parties in interconnection negotiations. Moreover, the scope for any bargaining power is likely to be considerably constrained by the fact that the MTRs of the 2012 SMP MSPs are regulated. For these reasons, buyer size may not be a useful barometer of CBP.

**Credible alternative sources of MVCT supply for the buyer**

6.213 As set out above at paragraphs 5.201 to 5.207 above, ComReg is of the view that, in the absence of effective demand-side substitution possibilities, buyers of MVCT cannot credibly switch to alternative sources of MVCT in the short term without incurring significant switching or sunk costs. In this regard, purchasers of MVCT from Vodafone are unlikely to be able to exercise CBP by switching to, or credibly threatening to switch to, an alternative source of MVCT supply.

**Price sensitivity of the buyer**

6.214 Purchasers of MVCT from Vodafone are likely to have limited price sensitivity to the MTRs charged by it, given that current MTRs are subject to regulation. As its retail subscribers would have a general expectation of end-to-end connectivity with all available networks, any price sensitivity on the part of Vodafone is likely to be somewhat constrained by the need to build a fully comprehensive retail offer which meets the general expectation of interoperability and accessibility to other networks.

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<sup>525</sup> Although not necessarily at any level of MTR.



- 6.215 Given that the MTRs of Vodafone and the other 2012 SMP MSPs are regulated at a common level, purchasers of MVCT from Vodafone are likely to have limited price sensitivity with respect to the MTRs it charges, as no MTR asymmetries arise. However, having regard to the historical pricing behaviour of Vodafone (prior to regulation), purchasers of MVCT would likely be price sensitive absent regulation.
- 6.216 Moreover, a Service Provider's level of price sensitivity to MTRs is likely to be greater, the greater the proportion of the cost of completing an off-net call accounted for by MTRs. Regulated MTRs now form a relatively lower proportion of retail call costs, compared to when they were unregulated. Unregulated MTRs tend to form a higher proportion of retail costs, and ComReg takes the view that the price sensitivity of purchasers of MVCT from Vodafone is likely to be currently lower than it otherwise would be due to the effectiveness of SMP regulation in reducing MTRs to the levels which would be expected to obtain in a competitive market. Absent regulation, it is likely that Vodafone would have the ability and incentive to raise its MTRs to supra-competitive levels, leading to increased price sensitivity on the part of purchasers of MVCT from Vodafone, as these higher MTRs form a larger proportion of retail call costs.

#### **Evidence of price-setting behaviour and negotiations between operators**

- 6.217 Like other 2012 SMP MSPs, Vodafone is subject to price regulation pursuant to the 2012 MVCT Decision and the 2016 MTR Decision. As such, it has been constrained through the presence of regulation when negotiating in respect of the level at which it sets its MTRs. This is confirmed by Vodafone in its response to the SIR issued to it by ComReg.
- 6.218 Vodafone's MTRs have been reduced on a number of occasions since the 2012 MVCT Decision as a result of regulatory obligations imposed by ComReg in that decision, rather than necessarily as a result of CBP being exercised by other Service Providers over Vodafone.
- 6.219 Accordingly, an examination of Vodafone's price-setting behaviour would not be a useful means of assessing the nature of any CBP exercised over it to date. ComReg has instead analysed above the credibility of the ways in which other Service Providers could potentially exert CBP over Vodafone if *ex ante* regulation were removed.

#### **Preliminary conclusion on whether Vodafone faces effective CBP**

- 6.220 Having regard to the discussion in paragraphs 6.206 to 6.219 above, ComReg's preliminary view is that no undertaking is likely to be in a position to exert sufficient CBP such that, absent regulation, it would sufficiently constrain Vodafone's ability to set its MTRs above the level consistent with a competitive market outcome, i.e. there is insufficient CBP to prevent Vodafone acting in the Relevant MVCT Market independently of competitors, customers and consumers.

## Overall preliminary conclusion on assessment of CBP in the Relevant Termination Markets

- 6.221 In paragraphs 6.42 to 6.91 above, ComReg has carried out an assessment of the impact posed by strong buyers on the competitive behaviour of each of the suppliers in the Relevant **FVCT** Markets identified in paragraph 5.157.
- 6.222 ComReg's preliminary conclusion is that the level of any CBP held by any of the FVCT purchasers identified is unlikely to be sufficiently effective such that it would, absent regulation, prevent the individual abilities of any FVCT supplier to set its FTRs above the level which would occur in a competitive market outcome.
- 6.223 In paragraphs 6.107 to 6.220 above, ComReg has carried out an assessment of the impact posed by strong buyers on the competitive behaviour of each of the suppliers in the Relevant **MVCT** Markets identified in paragraph 5.245.
- 6.224 ComReg's preliminary conclusion is that the level of any CBP held by any of the MVCT purchasers identified is unlikely to be sufficiently effective such that it would, absent regulation, prevent the individual abilities of any MVCT supplier to set its MTRs above the level which would occur in a competitive market outcome.

## SMP Designation

- 6.225 ComReg has considered a wide range of factors to identify whether any Service Provider enjoys a position of SMP in each of the Relevant Termination Markets identified in paragraphs 5.155 and 5.243 above. These factors include
- (a) existing competition in the Relevant Termination Markets;
  - (b) potential competition in the Relevant Termination Markets; and
  - (c) the strength of any Countervailing Buyer Power in the Relevant Termination Markets.
- 6.226 Having regard to Regulation 25 of the Framework Regulations, where ComReg determines, as a result of a market analysis carried out by it in accordance with Regulation 27 of the Framework Regulations, that a given market identified in accordance with Regulation 26 of the Framework Regulations is not effectively competitive, ComReg is obliged under Regulation 27(4) of the Framework Regulations to designate an undertaking(s) with SMP in that market.
- 6.227 On the basis of its assessment, ComReg's preliminary view is that each of the Relevant Termination Markets is not effectively competitive and the Service Provider operating in each Relevant Termination Market, as identified below, should be designated with SMP:

## Proposed FVCT SMP FSPs

6.228 On the basis of its assessment, ComReg's preliminary view is that each of the Relevant FVCT Markets is not effectively competitive and the FSPs operating in each Relevant FVCT Market, as identified below, should be designated as having SMP:<sup>526</sup>

- (a) Wholesale FVCT supplied by Airspeed Communications Unlimited Company
- (b) Wholesale FVCT supplied by Blue Face Limited
- (c) Wholesale FVCT supplied by BT Communications Ireland Limited
- (d) Wholesale FVCT supplied by Colt Technology Services Limited
- (e) Wholesale FVCT supplied by Dialoga Servicios Interactivos, SA
- (f) Wholesale FVCT supplied by Eircom Limited
- (g) Wholesale FVCT supplied by Equant Network Services International Limited
- (h) Wholesale FVCT supplied by Finarea SA
- (i) Wholesale FVCT supplied by Imagine Communications Ireland
- (j) Wholesale FVCT supplied by Intellicom Ireland Limited
- (k) Wholesale FVCT supplied by Internet Protocol Telecom Limited
- (l) Wholesale FVCT supplied by In2tel, a business name of In2com Limited
- (m) Wholesale FVCT supplied by Magnet Networks Limited
- (n) Wholesale FVCT supplied by Magrathea Telecommunications (Ireland) Limited
- (o) Wholesale FVCT supplied by Modeva Networks Unlimited Company
- (p) Wholesale FVCT supplied by PlanNet 21 Communications Limited (or, for the avoidance of doubt, its 100% owned subsidiary, 3Play Plus Limited)
- (q) Wholesale FVCT supplied by Telcom Limited
- (r) Wholesale FVCT supplied by Verizon Ireland Limited
- (s) Wholesale FVCT supplied by Viatel Ireland Limited
- (t) Wholesale FVCT supplied by Virgin Media Ireland Limited
- (u) Wholesale FVCT supplied by Vodafone Ireland Limited
- (v) Wholesale FVCT supplied by Voxbone SA

6.229 The above FSPs are collectively referred to as the Proposed SMP FSPs.

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<sup>526</sup> Prior to the publication of the Decision in respect of FVCT, ComReg will confirm the correct identities – in particular, the company name - of the FSPs which it proposes to designate with SMP.

## Proposed MVCT SMP MSPs

6.230 On the basis of its assessment, ComReg's preliminary view is that each of the Relevant MVCT Markets is not effectively competitive and the MSPs operating in each Relevant MVCT Market, as identified below, should be designated as having SMP:<sup>527</sup>

- (a) Wholesale MVCT supplied by eir Mobile (a business name of eircom Limited);
- (b) Wholesale MVCT supplied by iD Mobile (a business name of Carphone Warehouse Ireland Mobile Limited);
- (c) Wholesale MVCT supplied by Lycamobile Ireland Limited;
- (d) Wholesale MVCT supplied by Tesco Mobile Ireland Limited;
- (e) Wholesale MVCT supplied by Three Ireland (Hutchison) Limited;
- (f) Wholesale MVCT supplied by Virgin Media Ireland Limited.
- (g) Wholesale MVCT supplied by Vodafone Ireland Limited; and

6.231 The above MSPs are collectively referred to as the Proposed SMP MSPs.

6.232 Having carried out the SMP assessment, ComReg now goes on to consider competition problems in the Relevant Termination Markets.

- Q. 6. Do you agree with ComReg's assessment of SMP in the Relevant FVCT Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**
- Q. 7. Do you agree with ComReg's assessment of SMP in the Relevant MVCT Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

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<sup>527</sup> Prior to the publication of the Decision in respect of MVCT, ComReg will confirm the correct identities – in particular, the company name - of the MSPs which it proposes to designate with SMP.

## 7 Competition Problems and Impacts on Competition and Consumers (FVCT and MVCT)

### Overview

- 7.1 In this Section ComReg identifies competition problems which, absent regulation, could potentially arise in the Relevant Termination Markets. Then, in Section 8, ComReg considers the imposition of appropriate remedies in order to address the identified competition problems.
- 7.2 In Section 5, ComReg identified 22 separate Relevant FVCT Markets and 7 separate Relevant MVCT Markets. In Section 6, ComReg set out its view that, in accordance with Regulation 27(4) of the Framework Regulations, none of the Relevant Termination Markets are effectively competitive and proposes to designate 22 separate FSPs and 7 separate MSPs as having SMP on each of the termination markets within which they operate. This means that each identified Service Provider has the ability to act independently of its competitors, customers and consumers.
- 7.3 In accordance with Regulation 27(4) of the Framework Regulations, where an undertaking is designated as having SMP on a relevant market, ComReg is required to impose on that undertaking such of the remedies set out in Regulations 9 to 13 of the Access Regulations as it considers appropriate.
- 7.4 As noted in the European Commission's Explanatory Note to the 2014 Recommendation, the underlying purpose of the *ex ante* regulatory framework is to address competition problems that have their origin in industry structural factors in a systematic and predictable manner. For example, the finding of an absence of effective competition in the Relevant Termination Markets indicates the potential for competition problems to arise over the review period in question, thereby justifying the imposition of *ex ante* regulation.
- 7.5 In the absence of regulation in the Relevant Termination Markets, a Service Provider designated with SMP would have the ability and incentive to influence a range of competition parameters, including prices, innovation, output and the variety or quality of goods and services provided.

7.6 ComReg notes that it is necessary neither to catalogue examples of actual abuse, nor to provide exhaustive examples of potential abuses in the Relevant Termination Markets. Rather, the purpose of *ex ante* regulation is to prevent the possibility of abuses materialising, given that undertakings have been designated on a preliminary basis with SMP in the Relevant Termination Markets, and so have both the ability and incentive to engage in exploitative and exclusionary behaviours to the detriment of competition and, ultimately, end users.

## Types of Competition Problems

7.7 In determining what forms of *ex ante* regulatory remedies are warranted in the Relevant Termination Markets, ComReg has carried out an assessment of potential competition problems that are likely to arise, assuming SMP regulation is absent and taking account of the structure and characteristics of the Relevant Termination Markets (and adjacent markets), per the Modified Greenfield Approach.

7.8 An SMP undertaking may engage in a range of conducts, for example:

- Exploiting customers or consumers by virtue of its SMP position in the relevant market (as set out in paragraphs 7.11 to 7.46), and
- Leveraging market power into adjacent vertically and/or horizontally related markets by engaging in exclusionary practices (as set out in paragraphs 7.47 to 7.80 ).

7.9 In considering the types of competition problem which could arise, ComReg has also been guided by experience in the markets, where relevant. ComReg does not, for instance, consider exclusionary conduct vis-à-vis its competitors carried out by a Service Provider designated with SMP on its own relevant market. This is because, as set out in Section 5, only one Service Provider is present on the supply side in each Relevant Termination Market. By definition, it is unnecessary to assess the likelihood of exclusionary conduct on each Relevant Termination Market given that, as a matter of market definition, only one Service Provider is present on each Relevant Termination Market.

7.10 Although it is not necessary *per se* to demonstrate actual abuse, examples of competition problems which have previously arisen, even in the presence of existing regulation, can help ground the analysis in actual experience.

## Exploitative practices

7.11 In this sub-section, ComReg firstly briefly introduces the broad concept of exploitative practices (at paragraphs 7.12 to 7.16). It then discusses how exploitative practices may arise, firstly, in Relevant FVCT Markets (at paragraphs 7.17 to 7.32), and, secondly, in Relevant MVCT Markets (at paragraphs 7.33 to 7.46).

- 7.12 Economic theory suggests that, where an undertaking possesses SMP, it is in a position to increase prices above and/or reduce output below competitive levels. This allows that undertaking to earn higher than normal profits. These higher profits effectively create a wealth transfer from the consumer to the undertaking with SMP. It is ComReg's preliminary view that an undertaking having SMP in the Relevant Termination Markets would have the ability and incentive to engage in exploitative practices, such as excessive pricing.
- 7.13 According to the definition set out in EU competition case law, excessive pricing refers to a situation where the prices charged by a dominant firm (i.e. an undertaking having SMP) are not closely related to the value of the relevant service to the consumer and/or the cost of producing or providing that service.<sup>528</sup>
- 7.14 High termination rates may ultimately be recovered through higher call charges for end users. In its 2009 Termination Rates Recommendation (of which ComReg is required to take utmost account), the European Commission noted that, in the case of call termination *"excessive pricing is the main competition concern of regulatory authorities."* The 2009 Termination Rates Recommendation notes further that:
- "Termination markets represent a situation of two-way access where both interconnecting operators are presumed to benefit from the arrangement but, as these operators are also in competition with each other for subscribers, termination rates can have important strategic and competitive implications. Where termination rates are set above efficient costs, this creates substantial transfers between fixed and mobile markets and consumers. In addition, in markets where operators have asymmetric market shares, this can result in significant payments from smaller to larger competitors."*<sup>529</sup>
- 7.15 Accordingly, a key concern of the 2009 Termination Rates Recommendation is that *"significant divergences in the regulatory treatment of fixed and mobile termination rates create fundamental competitive distortions"*<sup>530</sup> and the European Commission underlines the EU-wide importance of regulating fixed and mobile termination rates effectively and in a consistent manner.

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<sup>528</sup> Case C 27/76 *United Brands v. Commission* [1978] ECR 207, para. 250. In *United Brands* the Court of Justice of the European Union held that: "... charging a price which is excessive because it has no reasonable relation to the economic value of the product supplied would be... an abuse".

<sup>529</sup> At Recital 3 of the 2009 Termination Rates Recommendation.

<sup>530</sup> *Ibid.*

- 7.16 Competition concerns in relation to excessive termination rates are not limited to the issue of excessive pricing. Call termination is a situation of two-way access, where termination rates generate revenue for terminating Service Providers and expense streams for originating Service Providers. The level of termination rates can therefore have important competitive and distributional implications for undertakings which make more outgoing termination payments than they receive, or vice versa.

## Relevant FVCT Markets

- 7.17 Below, ComReg discusses how Proposed SMP FSPs have the incentive to engage in exploitative conduct by means of:
- (a) Pricing FTRs at excessive levels, compared to the levels that would be expected to obtain in a competitive market (see paragraphs 7.18 to 7.29 below), and
  - (b) Engaging in costly, inefficient or unproductive business practices which, ultimately, raise prices (see paragraphs 7.30 to 7.32 below).

### Risk of Excessive FTR Pricing

- 7.18 As noted in Section 6, each Relevant FVCT Market is characterised by:
- (a) 100% market shares;
  - (b) An absence of existing competition;
  - (c) High and non-transitory barriers to entry associated with control over infrastructure not easily replicated;
  - (d) Little or no scope for potential competition; and
  - (e) Insufficient CBP.
- 7.19 Having regard to these characteristics, ComReg has proposed to designate 22 FSPs as having SMP and it is ComReg's preliminary view that each of these FSPs would be capable of behaving, to an appreciable extent, independently of their competitors and customers, with respect to their FTR pricing behaviour. Therefore, in the absence of regulation, it is ComReg's preliminary view that each FSP with SMP would have the ability to charge excessive prices for its FVCT services in its own Relevant FVCT Market.
- 7.20 The ability of FSPs to charge excessive prices for FVCT is derived largely from the high and non-transitory barriers to entry associated with control over resources<sup>531</sup> not easily replicated, little or no scope for potential competition and insufficient countervailing buyer power over the timeframe of the review.

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<sup>531</sup> As number ranges are allocated to individual FSPs, replicating an FSP's network would not alleviate the competition bottleneck associated with termination of calls to specific numbers.



- 7.21 In addition, such FSPs have incentives to maximise profits through charging excessive prices for FVCT. Additional strategic benefits would also accrue from excessive prices because the terminating FSPs' wholesale customers are also their competitors in downstream retail (and in some cases wholesale) markets. Thus, charging excessive prices for FVCT could also restrict competition by raising rivals' costs in downstream markets, thereby enabling the terminating FSP's retail (and in some cases wholesale) arm to gain an undue competitive advantage (for example, higher market shares and profits) at the expense of rivals. This possibility is considered in the subsection dealing with exclusionary practices below.
- 7.22 Excessive pricing may also reduce the incentive for productive efficiencies or innovation. Absent competitive pressures in a Relevant FVCT Market, incentives to minimise costs may be decreased, particularly given that such costs can be recovered through FTRs. This may, however, depend on whether such innovation is capable of also being driven by retail market dynamics. Incentives for innovation in advanced forms of interconnection (such as IP interconnection) could also be reduced, for example, as these could potentially erode the excessive profits earned through less efficient forms of access. Incentives may also exist for a strategy to reduce investment in network elements, services and associated facilities specifically associated with the supply of FVCT, particularly where it results in degraded quality or supply capacity constraints for buyers (although this may also impact the FVCT supplier's own subscribers too, where they are the called party).
- 7.23 In the absence of regulation, it is ComReg's preliminary view that each SMP FSP has the ability to charge excessive prices for FVCT services in the Relevant FVCT Market.<sup>532</sup> To address the potential for excessive pricing in each of the Relevant FVCT Markets, ComReg considers that *ex ante* regulation is required, and that *ex post* competition law would be unsuitable in preventing excessive pricing in a manner conducive to facilitating a reasonably certain and predictable regulatory environment which supports competition and investment aims.<sup>533</sup> This is evidenced by the lack of successful excessive pricing cases under Article 102 of the Treaty on the Functioning of the European Union ('TFEU'). An *ex post* approach to excessive pricing in the Relevant FVCT Markets, which are characterised by an absence of actual competition or potential competition, is unlikely to adequately protect consumers or promote effective competition in an effective and timely manner, although this may also impact the FVCT supplier's own subscribers too, given that they are the called party in some scenarios.

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<sup>532</sup> As set out in greater detail at paragraph 7.20 above.

<sup>533</sup> This includes reasons associated with the complexity and time involved in resolving such issues *ex post*, along with the competitive harm that could occur in the interim. Excessive pricing cases also require a detailed knowledge of the cost structures and levels of the SMP undertaking.

7.24 This is because addressing the issue of excessive pricing by means of competition law (if proven to the required standard of proof) would likely occur some time after the occurrence of the competition problem itself, thereby contributing to uncertainty among downstream market participants in the interim, and undermining the development of effective competition to the ultimate detriment of consumers. Furthermore, it would not be conducive to contributing to a consistent and coherent pan-European regulatory environment, as foreseen by the European Commission and noted in paragraph 7.15 above. The 2009 Termination Rates Recommendation further notes that:<sup>534</sup>

*“...in the light of the ability and incentives of terminating operators to raise prices substantially above cost, cost orientation is considered the most appropriate intervention to address this concern over the medium term.”*

7.25 Pursuant to the 2012 Pricing Decision,<sup>535</sup> FTRs charged by BT Communications, Colt Technology Services, Eircom, Magnet Networks, Smart Telecom, Virgin Media and Verizon Ireland are subject to price control obligations and Eircom is additionally subject to cost accounting obligations. The FTRs charged by the Unregulated FSPs have not been regulated to date. Similarly, no access obligation has been imposed on Unregulated FSPs to date. ComReg’s analysis indicates, however, that each of the Proposed SMP FSPs has the ability and incentive to engage in excessive pricing absent regulation. ComReg sees no objective reason to distinguish its approach<sup>536</sup> for the Proposed Alternative SMP FSPs from the approach which applies to Eircom, particularly given that the same exploitative competition problem has been identified in each case.

7.26 This is reinforced by the European Commission’s comments on ComReg’s 2007 FVCT Decision that appropriate access and price control remedies should have been imposed on all FSPs.<sup>537</sup> Furthermore, the European Commission has reiterated its views that the different treatment of termination markets or operators is, in general, unlikely to be compatible with EU law. In a serious doubts letter to the Italian NRA it noted that:

*“The measure proposed by AGCOM would very likely lead to the creation of a barrier to the internal market, as on the basis of the calling party pays principle the terminating new MVNO in Italy would be able to charge higher than efficient wholesale terminating rates for*

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<sup>534</sup> Recital 7 of the 2009 Termination Rates Recommendation.

<sup>535</sup> Annex: 1 Decision Instrument: Fixed Voice Call Termination. ComReg Decision D12/12, “Mobile and Fixed Voice Call Termination Rates in Ireland - Response to Consultation, Decisions and Decision Instruments”

<sup>536</sup> As described at Table 42.

<sup>537</sup> [Case IE/2007/0701](#): Call termination on individual public telephone networks provided at a fixed location in Ireland - Comments pursuant to Article 7(3) of Directive 2002/21/EC.

*calls originated in those Member States, to the detriment of operators and their subscribers in other Member States. In addition, the Commission points out that in most Member States a symmetric price control remedy was imposed on the full MVNOs following their entry in the market. Different regulatory approaches adopted by the NRAs within the EU would undermine the integrity of the internal market.*<sup>538</sup>

7.27 Similarly, in a serious doubts letter to the Austrian NRA, it noted that:

*“Even though the termination service provided by Austrian operators will be technically identical, they will be allowed to charge a different rate for this identical service on the basis of operators’ place of establishment. Therefore, in the opinion of the Commission, the draft measures may constitute a restriction to the freedom to provide services, by establishing a direct discrimination on the basis of the nationality of the operator originating the call.”*<sup>539</sup>

7.28 The analysis in paragraphs 6.63 to 6.68 furthermore shows wide variations in the FTRs charged by each of the FSPs following the implementation of the 2007 FVCT Decision, and the 2012 Pricing Decision. Unregulated FSPs have charged higher FTRs than the 2007 SMP FSPs, with the difference increasing over time as the 2007 SMP FSPs have reduced their cost oriented FTRs.<sup>540</sup>

7.29 ComReg therefore considers that certain SMP obligations are justified for all Proposed SMP FSPs to ensure that FTRs are appropriately set at levels that mimic what a competitive price would be,<sup>541</sup> and that there is no unjustified variation in the FTRs that are charged to different wholesale customers. These obligations are discussed in detail in Section 8 of this Consultation.

### **Risk of Inefficiency/Inertia**

7.30 An undertaking with SMP in a Relevant FVCT Market may also, by virtue of the lack of effective competitive pressure in that market, engage in costlier and less efficient methods of production, resulting in higher prices for wholesale customers and their consumers than would otherwise exist under competitive market conditions.<sup>542</sup>

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<sup>538</sup> See Commission Decision concerning Case IT/2016/1885.

<sup>539</sup> See Commission Decision concerning Case AT/2016/1846 and 1847.

<sup>540</sup> Eircom, BT Communications Ireland, Verizon Ireland, Virgin Media, Colt Telecom, Smart Telecom, and Magnet Networks.

<sup>541</sup> With price control obligations acting as a proxy for the prices which could be expected to obtain in a competitive market.

<sup>542</sup> For example, in *Merci Convenzionali Porto di Genova v. Siderurgica Gabrielli* the refusal of dock workers (who had a monopoly for the loading and discharging of cargo on behalf of third-parties in the port of Genoa) to use modern technology for the unloading of vessels meant that operations were more expensive than they would otherwise be. This failure to use new technology was found to constitute an abuse of dominance. (Article 102(2)(b) of the TFEU). [See Case C-179/90 [1991] ECR I-5889].

- 7.31 Regarding exploitative behaviour associated with inefficiency/inertia in the provision of FVCT, the network used to provide FVCT is also generally that used to deliver retail services. Hence, the degree of competition in the retail market and the extent to which this drives cost efficiency on the network overall could also impact on the cost efficiency of inputs used to deliver FVCT. Nevertheless, ComReg proposes to monitor possible concerns arising with regard to inefficiency/inertia over the timeframe of this market review. Furthermore, it is recognised that, absent regulation, retail competitive distortions resulting from FTRs set above efficient cost could, over time, also contribute to a degree of inefficiency/inertia and costlier methods of production at both wholesale and retail levels.
- 7.32 Above-cost MTRs arising from, for instance, inefficiency or inertia effectively create a floor to retail off-net pricing behaviour, influencing the ability and incentives of smaller Service Providers to pursue customers with significant off-net calling volumes. Termination rates may therefore have a real bearing on the retail commercial strategies pursued by smaller Service Providers. They may prevent tariff innovation, such as Service Providers being able to include off-net calls in tariff bundles, without taking an unacceptable risk of high off-net termination payments.

### **Relevant MVCT Markets**

- 7.33 Below, ComReg discusses how SMP MSPs have the ability and incentive to engage in exploitative conduct by means of:
- (a) Pricing MTRs at excessive levels, compared to the levels that would be expected to obtain in a competitive market (see paragraphs 7.34 to 7.45 below), and
  - (b) Engaging in costly, inefficient or unproductive business practices which, ultimately, raise prices (see paragraph 7.46 below).

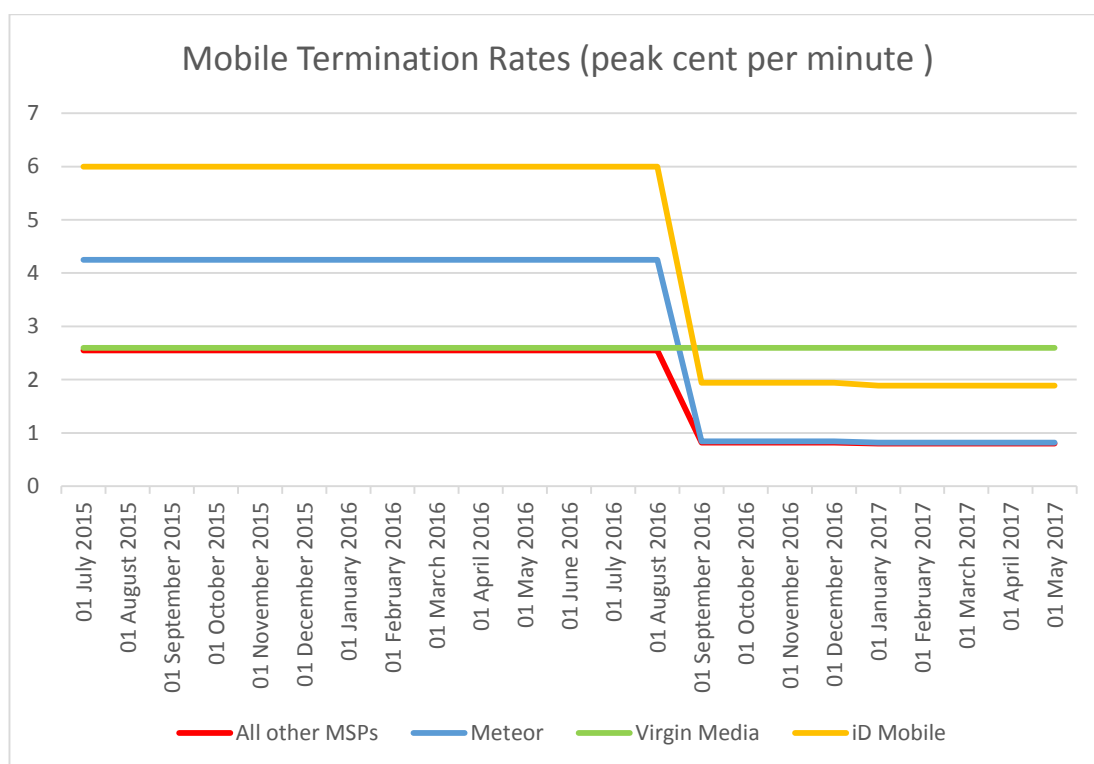
### **Risk of Excessive MTR Pricing**

- 7.34 As noted with respect to the Relevant FVCT Markets at paragraph 7.18 above, the Relevant MVCT Markets are characterised by:
- (a) 100% market shares,
  - (b) An absence of existing competition,
  - (c) High and non-transitory barriers to entry associated with control over infrastructure not easily replicated,
  - (d) Little or no scope for potential competition, and
  - (e) Insufficient CBP.
- 7.35 Thus, there is insufficient pressure to constrain an MSP from behaving, to an appreciable extent, independently of its customers, competitors or consumers, including in relation to its MVCT pricing behaviour.

- 7.36 Having regard to these characteristics, ComReg has proposed to designate 7 MSPs as having SMP. In the absence of regulation, it is ComReg's preliminary view that each Proposed SMP MSP has the ability to charge excessive prices for MVCT services in the Relevant MVCT Market. This would raise input costs to FSPs and rival MSPs, potentially restricting their sales of calls made to subscribers of the terminating MSP and could ultimately result in raised prices to consumers. Such excessive pricing would therefore not only exploit consumers making calls to mobiles, but might also harm or distort competition where the excessively-priced MVCT input distorts competition in related downstream markets, e.g. in retail markets where Service Providers rely on the upstream MVCT input.
- 7.37 Excessive pricing may also reduce the incentive for productive efficiencies or innovation. Absent competitive pressures in a Relevant MVCT Market, incentives to minimise costs may be decreased, particularly given that such costs can be recovered through MTRs. This may, however, depend on whether such innovation is capable of also being driven by retail market dynamics. Incentives for innovation in advanced forms of interconnection (such as IP interconnection) could also be reduced, for example, as these could potentially erode the excessive profits earned through less efficient forms of access. Incentives may also exist for a strategy to reduce investment in network elements, services and associated facilities specifically associated with the supply of MVCT, particularly where it results in degraded quality or supply capacity constraints for buyers (although this may also impact the MVCT supplier's own subscribers too where they are the called party).
- 7.38 In addition, MSPs may have incentives to maximise profits through charging excessive prices for MVCT. Additional strategic benefits would also accrue from excessive prices because the terminating MSPs' wholesale customers are also their competitors in downstream retail (and in some cases wholesale) markets. Thus, charging excessive prices for MVCT could also restrict competition by raising rivals' costs in downstream markets, thereby enabling the terminating MSP's retail arm to gain an undue competitive advantage (for example, higher market shares and profits) at the expense of rivals.
- 7.39 As set out in paragraphs 7.23 and 7.24 above, for reasons similar to those set out in respect of the Relevant FVCT Markets, ComReg does not consider that competition law is the best means of protecting consumers and promoting effective competition in a timely manner in this instance, and that *ex ante* regulation is accordingly required.

7.40 As noted in the analysis in Section 6,<sup>543</sup> the MTRs of Three, Lycamobile, eir Mobile, TMI and Vodafone are currently regulated by means of the BU Pure LRIC methodology, as set out in ComReg’s 2016 MTR Decision. The MTRs of Virgin Media Ireland and iD Mobile are not currently regulated. ComReg proposes to designate all seven of these MSPs with SMP. Per the data in the STRPL, iD Mobile has, since its market entry, priced its MTRs at 230% of the regulated rate, for all levels of the regulated rate. In contrast, Virgin Media entered the market pricing its MTR at the then-prevailing rate (2.6 cent per minute), but it has retained this rate as the 2012 SMP MSPs have reduced their MTRs, leading to a widening gap over time between Virgin Media’s MTRs and the regulated MTRs, from parity in July 2015, to 310% in September 2016, to 317% in January 2017:

**Figure 60: Mobile Termination Rates (peak cent per minute), July 2015 – May 2017**



<sup>543</sup> See paragraph 6.99.

- 7.41 ComReg's view is that this analysis has demonstrated that each of the Proposed SMP MSPs has the ability and incentive to engage in excessive pricing for its termination services in its own Relevant MVCT Market. Absent regulation, MTRs would not be likely to be reduced to a competitive level. Price control (and related access, transparency, and non-discrimination obligations) are, therefore, considered justified by ComReg to ensure MTRs are set at appropriate levels that are reflective of the underlying cost of providing MVCT and that there are no differences in the charging of such MTRs to other Service Providers.
- 7.42 It should, however, be noted that asymmetries in the charging of MTRs may arise in the case of calls made between different jurisdictions. At an EU level, ComReg set out in its 2012 MVCT Decision<sup>544</sup> that its approach to regulation of MVCT markets was, amongst other things, to promote the provision of pan-European services, with this being consistent and harmonised with approaches adopted or being adopted by other EU NRAs. Since then, a number of EU NRAs have adopted measures which allow SMP Service Providers to respond to these asymmetries, most commonly by restricting the application of WVCT price control obligations to calls originated within the EEA. ComReg sets out below (at paragraphs 8.127 to 8.162) the relevant considerations in considering whether or not to allow a differentiated approach with respect to the application of price control (and other relevant) obligations for calls originated within the EEA on the one hand, and originated outside the EEA on the other.
- 7.43 In respect of the provision of MVCT for calls originating outside of the EEA, regulatory approaches to MVCT, MTRs, and the application of non-discrimination obligations in the charging of MTRs may vary for non-EEA jurisdictions. In practice, this means that there may be disparities between the MTRs charged by non-EEA MSPs to Irish Service Providers for the termination of calls originating in Ireland, and the MTRs charged by Irish MSPs to non-EEA Service Providers for calls originated outside the EEA. In circumstances where high MTRs are charged by non-EEA MSPs to Irish Service Providers, and Irish MSPs' MTRs are regulated, this could result in a wealth transfer from the Irish MSP to the non-EEA MSP.<sup>545</sup> This is despite the likelihood that that, from a functional/technical perspective, equivalent and reciprocal services are being provided by both the Irish and the non-EEA Service Provider.

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<sup>544</sup> At paragraph 8.107.

<sup>545</sup> The size of the wealth transfer is likely to be contingent on both the disparity in termination rates and the relative traffic flows between Service Providers – the wealth transfer will be greater, the larger the disparity between termination rates, and the larger the excess of originated over terminated calls, on the part of the EEA Service Provider.

- 7.44 The European Commission, in March 2016, objected to a proposal by the Austrian NRA, whereby Austrian Service Providers would be entitled to charge Service Providers in other EEA Member States differentiated termination rates, depending on the level of termination rates being charged by the Service Provider in the originating EEA Member State. Such an approach was objected to on the ground that this measure would likely fail to meet the standard of non-discrimination, and therefore create barriers to the internal market.<sup>546</sup> The European Commission does not appear, however, to have issued similar objections in respect of proposals of this nature vis-à-vis non-EEA countries, and did not object to circumstances whereby termination rates in such instances may be agreed by means, not of regulation, but of commercial negotiation.<sup>547</sup>
- 7.45 ComReg will further address the issue of asymmetric MTRs in Section 8 – Remedies.

### **Risk of Inefficiency/Inertia**

- 7.46 An undertaking with SMP in a relevant market may also, by virtue of the lack of effective competitive pressure in that market, engage in costlier and less efficient methods of production, resulting in higher prices for wholesale customers and their consumers than would otherwise exist under competitive market conditions. An SMP MSP may also face the same incentives as those described in respect of SMP FSPs at paragraphs 7.30 to 7.32 above, leading to sub-optimal outcomes for purchasers of MVCT at the wholesale level and, ultimately, consumers.

## **Leveraging and Exclusionary Practices**

- 7.47 Another potential competition problem arises when a vertically-integrated operator has SMP in one market which has links with other adjacent markets either at the same (horizontal) or different (vertical) level in the supply chain. The SMP operator may attempt to leverage its market power into these horizontally- or vertically-related markets. This could enable the SMP operator to strengthen its position or distort competition in those related markets and potentially also reinforce its existing market power in the SMP market in question. For example, high termination rates may have exclusionary effect by raising the costs of rivals, especially new entrants, who are likely to originate more off-net than on-net calls, compared to incumbents who have had time to build their network. Such new entrants will likely pay more in termination rates than their incumbent competitors.

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<sup>546</sup> [http://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=14984](http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=14984)

<sup>547</sup> See, for example, the European Commission letter of May 17<sup>th</sup>, 2017 to the Greek NRA concerning its proposals for the regulation of MVCT, wherein it stated without comment that: “EETT does not extend the price control obligation to voice calls originated in non-EEA countries. The termination of such calls will be determined through commercial agreements.” Case EL/2017/1978: Wholesale voice call termination on individual mobile networks in Greece



7.48 In the following subsections, ComReg discusses the following aspects of leveraging and exclusionary practices:

- The capacity of Eircom to engage in anticompetitive leveraging on the Relevant FVCT Markets, and related markets (discussed in paragraphs 7.52 to 7.62 below),
- The capacity of Proposed Alternative SMP FSPs to engage in anticompetitive leveraging on the Relevant FVCT Markets, and related markets (discussed in paragraphs 7.63 to 7.75 below), and
- The capacity of Proposed SMP MSPs to engage in anticompetitive leveraging on the Relevant MVCT Markets, and related markets (discussed in paragraphs 7.95 to 7.98 below).

### **Relevant FVCT Markets**

7.49 Given the close relationship between the Relevant FVCT Markets and other relevant upstream (e.g. FACO and Transit)<sup>548</sup> and downstream (e.g. Wholesale SV services and Retail Calls) markets, competition problems with both vertical and horizontal leveraging are likely. Horizontal leveraging arises where an operator with SMP at one level in the production or distribution chain engages in exclusionary or other conduct which aims to extend that market power into closely related markets at a similar level in the value chain. Vertical leveraging arises where a vertically integrated operator has SMP at one level in the production or distribution chain and can potentially use this market power to affect competitive conditions in downstream markets in which it is also active. Both types of behaviour may raise rivals' costs, reduce competitive pressures on related wholesale or retail services and enable the Proposed SMP FSPs to extract additional revenues. This could also have the effect of reinforcing market power in the SMP market in question (defensive leveraging), although in view of the high and non-transitory entry barriers and resulting low threat of entry in the Relevant FVCT Markets, defensive leveraging is less of a concern.

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<sup>548</sup> For example, as noted in paragraph 5.5 above, while this Consultation Paper is concerned with the provision of FVCT services, these services can form part of a set of complementary wholesale interconnection inputs, also including wholesale CO and Transit services, used to support end-to-end provision of retail voice calls to end users at a fixed location. For the purpose of this discussion, the three interconnection markets underlying the carriage of a call (FACO, Transit, and FVCT) are deemed to be at the same (horizontal) level in the supply chain.

7.50 As is clear from Sections 5 and 6, originating Service Providers require effective access to FVCT to enable their retail customers to contact FSPs' subscribers, thereby providing them with a full service offering. In addition, as identified in Sections 5 and 6 there is currently no effective alternative to terminating on the specific fixed number on which the called party is located (nor is there likely to be within the lifetime of this market analysis). Therefore, a terminating FSP controls an important input for downstream retail markets, giving it scope and ability to influence competitive conditions on those downstream markets (and potentially in other wholesale markets). In this case, ComReg must therefore consider whether, absent regulation, SMP providers of FVCT would have the ability and incentives to leverage market power into:

- Any adjacent wholesale markets related to the provision of retail voice calls, e.g. Transit, Fixed Access and Call Origination,<sup>549</sup> and/or
- Downstream wholesale and/or retail voice markets (which are located downstream of the Relevant FVCT Markets), e.g. Wholesale SV<sup>550</sup> and/or Retail Calls<sup>551</sup> services.

7.51 Absent regulation in the Relevant FVCT Markets, other competition problems may arise with respect to the discriminatory use of, or withholding of, information, and discrimination on quality and pricing parameters. In order to facilitate interconnection with the Proposed SMP FSPs and ensure access to FVCT, purchasers of FVCT must also provide information to the Proposed SMP FSPs on matters such as their own network configuration and/or call traffic patterns. In these situations, the Proposed SMP FSP may have the power to use such information about downstream competitors' networks and/or traffic patterns in the design of their own retail services.

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<sup>549</sup> ComReg Decision D05/15, *Wholesale Fixed Voice Call Origination and Transit Markets - Response to Consultation and Decision*. It should be noted that, at the wholesale level, voice services may be sold in bundles, with the result that the impacts of any attempts to leverage market power may also be felt in those markets which relate to the provision of each element of the service bundle.

<sup>550</sup> Wholesale Switchless Voice ('SV'), also known as 'White Label Access', is a wholesale product which allows authorised undertakings to enter the retail fixed voice market without the need to invest in interconnection infrastructure by purchasing end-to-end call services from the wholesale provider.

<sup>551</sup> As defined in ComReg Decision 07/07, *Market Analysis – Retail Fixed Calls Market Review* to include Retail residential domestic calls from a fixed location; Retail residential international calls from a fixed location; Retail non-residential domestic calls from a fixed location; and Retail non-residential international calls from a fixed location in Ireland.

### **Risk of Leveraging - Eircom**

- 7.52 Eircom has historically had a strong position on downstream retail calls markets, although this has been mitigated by means of regulation. Accordingly, Eircom's ability and incentives to engage in vertical leveraging and any consequential competition impacts would appear to be strong. In view of its position on a number of key input markets (Eircom is active across a number of (horizontally) related wholesale interconnection services markets, e.g. FACO, Transit and FVCT), its provisioning of downstream wholesale end-to-end (Wholesale Switchless Voice) services, as well as its established position in the downstream retail calls markets, Eircom has the ability and incentive to impede downstream competitors through price and/or non-price means. It could thus potentially use its SMP in some of those upstream input markets to leverage its market power horizontally into adjacent wholesale input markets, and/or vertically into downstream markets.
- 7.53 Examples of non-price vertical leveraging could involve restricting or delaying access to the key FVCT input and any relevant associated facilities to downstream competitors in an attempt to extract excessive FTRs and/or dampen competition in retail calls (and potentially access) or other markets. Any raising of rivals' costs and related distortion of, or reduction in, competition in these retail markets could result in harm to consumers, potentially in the form of higher prices, lower output/sales, reduced quality or consumer choice as well as further delaying investment and entry into upstream wholesale markets.
- 7.54 A refusal to deal/denial of access to FVCT may manifest itself as a constructive denial and not necessarily as an outright and categorical refusal to supply. This could include delaying tactics such as protracted negotiations in respect of the provision of access to FVCT or associated facilities (e.g. in the case of new FVCT products/features such as the introduction of VoIP-based FVCT), and/or seeking unreasonable terms and conditions associated with such access. It could also include unwarranted withdrawal of access already granted.
- 7.55 As noted in the assessment of CBP in Section 6,<sup>552</sup> while indirect interconnection to Eircom's network *via* third-party Transit providers with established interconnects might somewhat constrain Eircom's ability to refuse or delay interconnection to FVCT purchasers, it would not, however, necessarily constrain Eircom's ability and incentive as the FVCT supplier to set FTRs above an efficient level for those third-party Transit providers absent regulation, which would in turn presumably be passed through (indirectly) to all FVCT purchasers, still impacting on their ability to compete in downstream markets.

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<sup>552</sup> See paragraph 6.56.

- 7.56 Furthermore, the availability of Transit services does not solve the problem of a denial of, or delayed, access. As noted by the European Commission in its expression of serious doubts to the Latvian NRA,<sup>553</sup> in the event that direct interconnection is impeded, access seekers to the FVCT service in question would be forced to interconnect indirectly bearing additional costs resulting from Transit services.
- 7.57 Proposed SMP FSPs may discriminate in the quality treatment of a competitor's traffic terminating with the Proposed SMP FSP relative to the Proposed SMP FSP's treatment of its own on-net traffic. Information asymmetries may also apply to future planning. For example, changes by Eircom to its network topography, such as migration to VoIP traffic switching/routing may have implications for Service Providers using FVCT, and a lack of information and associated uncertainty may impact on their downstream operations.
- 7.58 Exclusionary conduct may also be apparent in other pricing behaviours. A vertically-integrated operator such as Eircom which provides a wholesale input on which other operators rely to compete in downstream markets, coupled with its own presence in downstream markets could price its upstream and downstream services in such a way as to impede effective downstream competition due to an insufficient margin between the upstream and downstream prices, i.e. a margin squeeze or insufficient economic space may exist. For example, absent regulation, the level of the FTR charged to FVCT wholesale customers may be such that the margin between the FTR charged to those wholesale customers and their retail price for a call may, having regard to objective cost differences, be insufficient to cover the downstream retail costs they face, even assuming that they are operating efficiently.

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<sup>553</sup> See the European Commission's serious doubts and BEREC's opinion in case LV/2012/1296 referred to in footnote 774 below concerning non-imposition of an access obligation in MVCT markets. The BEREC opinion noted that indirect interconnection may raise the costs of access and thus Transit services are not a substitute for the availability of direct interconnection.

- 7.59 As regards horizontally related markets, Eircom could have the ability and incentive to set an insufficient economic space between its pricing of FVCT sold on a standalone basis and FVCT packaged with adjacent inputs such as Transit services (i.e. tandem and double-tandem termination). A squeeze in Eircom's relative pricing of standalone FVCT and FVCT packaged with Transit could prevent an efficient competitor relying on standalone FVCT from profitably replicating Eircom's packaged FVCT/Transit (i.e. tandem and double-tandem termination) offer. While the Transit market was deregulated by means of ComReg's 2015 FACO and Transit Decision, an insufficient economic space between standalone and packaged FVCT inputs could nevertheless consequently impede competition in the adjacent Transit market and deter network investment (potentially delaying entry into other key input markets, such as Fixed Access and Call Origination). By means of the same decision, the FACO market continues to be regulated.
- 7.60 Eircom could also use its integrated position at horizontal and vertical levels of the supply chain to undermine infrastructure investments that could potentially pose a longer-term competitive risk to its business. In its 2015 FACO and Transit Decision, ComReg's view was that, absent regulation, Eircom would have the ability and incentive to engage in behaviour that would delay or deter network investment and entry into FACO Markets, and, ultimately, the RFTS market.<sup>554</sup> ComReg concluded in its 2014 FACO and Transit Consultation<sup>555</sup> that
- “Eircom could have the ability and incentive to price its wholesale inputs in a way that increases uncertainty and could dissuade potential entrants from engaging in efficient infrastructural investments, potentially foreclosing competition in horizontally related markets.”*<sup>556</sup>
- 7.61 Absent regulation, Eircom could attempt to foreclose competition in a downstream market by offering a downstream product at a price that would not allow an efficient Access Seeker a sufficient margin to recover their efficiently-incurred costs, resulting in the foreclosure of competition.
- 7.62 In view of the foregoing assessment, ComReg thus considers that obligations of access, transparency, non-discrimination, and price control are justified to protect against possible exploitative and leveraging/exclusionary behaviour in the case of Eircom.

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<sup>554</sup> At paragraph 8.2.c.

<sup>555</sup> ComReg Document 14/26, “Market Review - Wholesale Fixed Voice Call Origination and Transit Markets.” (the ‘**2014 FACO and Transit Consultation**’).

<sup>556</sup> Ibid, at paragraph 8.41.

### **Risk of Leveraging - the Proposed Alternative SMP FSPs**

- 7.63 Given the commonality of competition problems in respect of the Proposed Alternative SMP FSPs, this subsection analyses the leveraging risks which each of these FSPs face on a collective basis.
- 7.64 While smaller or new-entrant FSPs are more likely to have greater incentives to interconnect with the more established networks, the Proposed Alternative SMP FSPs may still have incentives to engage in discriminatory tactics as a means of extracting excessive termination rates in the course of negotiations. As noted in the CBP subsection above, by virtue of their control over access to their subscribers' fixed numbers, some Unregulated FSPs have charged higher FTRs than Eircom's regulated FTRs, with the difference increasing over time as Eircom has reduced its cost oriented FTRs. It is conceivable that such Proposed Alternative SMP FSPs might invoke delaying tactics such as protracted negotiations in respect of the provision/renewal of access to FVCT or associated facilities with a view to extracting an FTR which is above what would otherwise arise in a competitive market outcome.
- 7.65 While ComReg recognises that a new entrant or smaller FSP may wish to maximise its returns by offering its subscribers comprehensive end-to-end connectivity with all other established Service Providers, the risk remains that delayed or ineffective access by any Proposed SMP FSP could still raise rivals' costs and contribute to increased barriers and/or expansion to entry in downstream retail voice markets for either new entrants or smaller Service Providers with fewer subscribers. Raising rivals' costs and the related distortion of, or restrictions in, competition in these retail markets could result in harm to consumers, potentially in the form of higher prices, lower output/sales, and reduced quality or consumer choice. While, as noted at paragraph 4.13 of the 2007 FVCT Decision, there may be fewer incentives for new entrant or smaller FSPs to deny access to established Service Providers with larger customer bases, smaller FSPs could still have an incentive to deny access to other small-scale Service Providers.
- 7.66 Proposed Alternative SMP FSPs in a Relevant FVCT Market might also potentially have the ability and incentive to discriminate or refuse to supply FVCT to operators of a comparable size and/or potential new entrants in the downstream markets.<sup>557</sup> Thus, Proposed Alternative SMP FSPs also have the ability and incentive to impede downstream competitors through price (e.g. excessive and/or discriminatory pricing) and/or non-price means (e.g. delaying negotiations or not facilitating calls from the customers of rival Service Providers which may be relatively new entrants in the retail voice calls markets).

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<sup>557</sup> See BEREC opinion in case LV/2012/1296 referenced in footnote 774 below.

- 7.67 In line with European Commission guidance, ComReg takes a forward-looking perspective to assessing the scope for Proposed Alternative SMP FSPs to deny or delay FVCT access to FSPs (particularly new entrant FSPs), and notes that such opportunities could arise over the period of the current market review. This risk may become more pronounced over the period of the present market review as Proposed Alternative SMP FSPs become more established on retail markets.<sup>558</sup>
- 7.68 Further to the above risks of price and non-price leveraging strategies, ComReg considers that obligations relating to access, transparency, non-discrimination and price control are appropriate in respect of Proposed Alternative SMP FSPs.
- 7.69 ComReg's preliminary analysis suggests that each of the FSPs in the Relevant FVCT Markets has SMP. ComReg's analysis furthermore suggests that each FSP, as a vertically-integrated undertaking, would have the ability and incentive to engage in price and non-price leveraging strategies through using its control over FVCT inputs to raise rivals' costs in related downstream markets. Any such raising of entry barriers/lessening of competition in downstream markets would ultimately be to the detriment of consumers in terms of higher prices and lower choice and innovation. Under these circumstances, robust obligations of access, transparency, non-discrimination, and price control are justified.
- 7.70 Aside from not imposing an access obligation, at the time of the 2007 FVCT Decision, ComReg imposed a delayed price control obligation subject to a trigger mechanism for the 2007 Alternative SMP FSPs in recognition of their initially less efficient economies of scale and scope and early stage of market development. In this respect, the European Commission's Explanatory Note to the 2009 Termination Rates Recommendation notes that rewarding an operator for its smaller size can give inappropriate investment signals and risks promoting inefficient entry. The Explanatory Note states further (at p.19) that economies of scale would not seem an appropriate argument for asymmetric price controls in the case of FSPs:

*“As regards the extent to which new entrants might be expected to have higher unit costs than incumbents, it has been argued that this consideration is more relevant for mobile than for fixed operators. Fixed operators have the opportunity to build their networks in a particular geographic area and focus on higher-density routes. Furthermore, they can lease relevant network services from the incumbent to reduce the fixed costs of network build and thereby reduce the impact of economies of scale.”*

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<sup>558</sup> At the time of the 2007 FVCT Decision, the European Commission was of the view that any general interconnection obligation that might stem from Irish legislation would not swiftly resolve eventual access problems such as delaying tactics, compared to a more specific access obligation imposed as a result of a market analysis. Therefore, the European Commission invited ComReg to impose effective access obligations on the 2007 Alternative SMP FSPs. See footnote 537 above.

- 7.71 At the time of the 2007 FVCT Decision ComReg also noted some indications of possible convergence between the 2007 Alternative SMP FSPs' FTRs with those of Eircom. In this Consultation (in paragraphs 6.63 to 6.68 above), however, ComReg has observed persistent variations in the level of FTRs applied by FSPs, and notes that the gap between the FTRs of Unregulated FSPs, and the FTRs of the 2007 SMP FSPs is widening over time as the regulated FSPs reduce their cost oriented FTRs. It should also be noted that the cent per minute FTRs for peak calls charged by the 2007 SMP FSPs fell by between 68% and 90% when maximum FTRs took effect on 1 July 2013, pursuant to the FVCT Decision Instrument included as an Annex to the 2012 Pricing Decision.
- 7.72 In view of the foregoing assessment, ComReg thus considers that robust obligations of access, transparency, non-discrimination, and price control are justified to protect against possible exploitative and leveraging/exclusionary behaviour in the case of all Proposed SMP FSPs.
- 7.73 However, mindful of the need to ensure that regulation is still proportionate to the competition problems that have been identified in the current market review, ComReg takes into account the lesser ability of Proposed Alternative SMP FSPs (relative to Eircom) to leverage their position across related markets. Accordingly, ComReg proposes to impose a cost accounting obligation only on Eircom (which is also active in the provision of related services such as wholesale FACO, which remains regulated and Transit, which is now deregulated) and not on Proposed Alternative SMP FSPs at this stage.
- 7.74 In the case of Eircom, ComReg's preliminary analysis has shown that, in addition to the problems identified for all Proposed SMP FSPs, Eircom holds a position of strength across a number of vertically and horizontally related wholesale and retail markets. Hence, additional protection is needed to ensure an appropriate economic space is maintained in Eircom's relative pricing of FVCT and other horizontally and vertically-related input services.
- 7.75 The Decision Instrument annexed to the 2015 FACO and Transit Decision requires Eircom to comply with obligations in respect of:
- Access,
  - Non-discrimination,
  - Transparency,
  - Accounting Separation, and
  - Price control and cost accounting



given its SMP on the Relevant FACO Markets. Accordingly, the obligations placed on Eircom in the Relevant FACO Markets, together with the various regulatory obligations proposed to be imposed on Eircom in the Relevant FVCT Markets, are expected to reduce the ability and incentive of Eircom to distort competition through its relative pricing of key strategic inputs at upstream and downstream supply levels. The proposed obligations for the Proposed SMP FSPs are discussed in detail in Section 8 of this Consultation.

## **Relevant MVCT Markets**

### **Risk of Leveraging**

- 7.76 Given the individual nature of the Relevant MVCT Markets, competition problems associated with vertical leveraging are also likely to arise, absent regulation. A vertically-integrated MSP that has SMP in its Relevant MVCT Market may have the incentive to use this market power to affect the competitive conditions in related downstream retail markets where competitors rely on this key MVCT input, such as the RFTS and RMTS markets. This could result in a distortion of, or reduction in, competition in these retail markets resulting in harm to consumers, potentially in the form of higher prices, lower output/sales, reduced quality or consumer choice.
- 7.77 An example of such exclusionary conduct is refusal to supply access to MVCT. A refusal to deal/denial of access to MVCT may manifest itself as a constructive denial and not necessarily as an outright and categorical refusal to supply. This could include delaying tactics such as protracted negotiations in respect of the provision of access to MVCT or associated facilities, or seeking unreasonable terms and conditions associated with such access. It could also include unwarranted withdrawal of access already granted.
- 7.78 Absent regulation in the Relevant MVCT Markets, other possible competition problems may arise with respect to the discriminatory use of or withholding of information, and discrimination on quality and pricing parameters. In this regard, in order to facilitate interconnection with the Proposed SMP MSPs and ensure access to MVCT, purchasers of MVCT must also provide information to the Proposed SMP MSP on matters such as their own network configuration and/or call traffic patterns. In these situations, the MSP may have the power to use such information about downstream competitors' networks and/or traffic patterns in the design of their own retail services. Proposed SMP MSPs may also discriminate in the quality treatment of a competitor's traffic relative to their own (on-net) terminating traffic. Proposed SMP MSPs could also discriminate on price grounds whereby, absent objective justification, different undertakings operating in equivalent circumstances are charged different MTRs. This could particularly be the case in respect of MTRs levied on smaller or new entrant MSPs or FSPs.

- 7.79 Exclusionary conduct may also be apparent in other pricing behaviours. A vertically-integrated operator which has SMP at the wholesale level and which provides a wholesale input on which other operators rely to compete in downstream markets could price its upstream and downstream services in such a way as to impede effective downstream competition due to an insufficient margin between wholesale and retail prices, i.e. a margin squeeze may exist. For example, absent regulation, the level of the MTR charged by an MSP to another undertaking may be such that the margin between the MTR charged to that undertaking and the same MSP's retail price for an on-net call may, having regard to objective cost differences, be insufficient to cover the MSP's retail costs. However, this may be mitigated in the presence of an appropriate price control obligation such as cost orientation.
- 7.80 ComReg's preliminary analysis has indicated that each of the MSPs in the Relevant MVCT Markets has SMP. ComReg's analysis furthermore suggests that each Proposed SMP MSP, as a vertically-integrated undertaking, would have the ability and incentive to engage in price and non-price leveraging strategies through using its control over MVCT inputs to raise rivals' costs in related downstream markets. Any such raising of entry barriers/lessening of competition in downstream markets would ultimately be to the detriment of consumers in terms of higher prices and lower choice and innovation. Under these circumstances, robust obligations of access, transparency, non-discrimination, and price control are justified. Such obligations are discussed in Section 8.

## Impacts of Competition Problems on Competition and Consumers

- 7.81 Having considered the general categories of competition problems which have the potential to arise in each of the Relevant Termination Markets, ComReg discusses below the potential impact of such issues on competition and consumers.
- 7.82 In this respect, the 2009 Termination Rates Recommendation aims to address competition and consumer impacts where it notes that:
- (a) Where termination rates are set above efficient costs, substantial transfers between fixed and mobile markets and consumers, and significant payments from smaller to larger competitors can result (*Recital 3*);
  - (b) High termination rates tend to lead to high retail prices for originating calls and correspondingly lower usage rates, thus decreasing consumer welfare (*Recital 3*); and
  - (c) A lack of harmonisation in the application of cost accounting principles for setting termination rates to date impacts on the regulatory burden on operators active in several countries (*Recital 4*).

- 7.83 In this sub-section ComReg addresses how competition problems impact both competition and efficiency in, firstly, the Relevant FVCT Markets and, secondly, the Relevant MVCT Markets.

## Relevant FVCT Markets

### Impacts on Competition

- 7.84 FTRs above efficient cost can result in financial payments and competitive distortions for undertakings (and their consumers) with off-net traffic outflows to the SMP FSPs, particularly where there are asymmetric traffic flows. In particular, FTRs set above an efficient level could have important competitive and distributional impacts for smaller FSPs with large traffic outflows to other more established FSPs. The further FTRs deviate from efficient costs, the larger the financial outflows from such smaller FSPs to their larger, more established rivals. Financial and competitive distortions generated by high inter-operator wholesale payments further imply that consumers as a group will ultimately pay more in terms of reduced competition, innovation and higher prices.
- 7.85 Furthermore, where off-net FTRs exceed efficient cost, on-net/off-net retail price discrimination<sup>559</sup> could potentially result. This could lead to increased use of on-net calls to subscribers at a fixed location, as well as consumers being generally deterred from making off-net calls, whether from a fixed or mobile phone, to subscribers at a fixed location due a higher off-net retail price being applied for such calls.<sup>560</sup> Since subscribers to smaller networks are more likely to make a larger proportion of off-net calls than subscribers to larger networks, the impact of on-net/off-net retail price differentiation is likely to be more pronounced for smaller networks and their subscribers.

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<sup>559</sup> While not a widely observed retail pricing practice in respect of RFVC, the potential for on-net/off-net retail price discrimination and associated tariff-mediated network externalities remains, absent regulation.

<sup>560</sup> The pass-through of any wholesale termination profits into lower retail call prices for certain consumers (e.g. on-net calls) is known as a 'waterbed' effect. However, even if there is full pass-through of termination profits into lower on-net retail prices, the above financial and competitive distortions can still result from the structure of FVCT prices. Depending on the intensity of retail competition and/or the ability to successfully price discriminate at the retail level, FSPs may, however, decide to retain the excessive profit earned and not cross-subsidise retail services at all.

- 7.86 Tariff-mediated network externalities<sup>561</sup> stemming from on-net/off-net price differentiation strategies (with high retail off-net call prices being further facilitated by high off-net termination charges) put smaller networks at a disadvantage while benefitting Service Providers with a larger customer base.
- 7.87 FTRs set above efficient cost may also reduce the flexibility for retail pricing innovation (such as offering more inclusive any network minute bundles, or unlimited call offerings).<sup>562</sup> High per-minute termination rates effectively create a retail pricing floor and tend to make it difficult for Service Providers to offer innovative calling plans due to uncertainty regarding customer take-up. This may be particularly so depending on, for example, differences between MTRs and FTRs, or the level of asymmetries between FTRs.

### Impacts on Efficiency

- 7.88 There are three types of efficiency which are considered from the point of view of maximising economic welfare. These are summarised briefly below.
- 7.89 **Allocative efficiency** concerns the promotion of efficient production and consumption decisions, and in the case of FVCT is dependent on the respective sizes of network externalities and call externalities. For example, the existence of strong network externalities might imply FTRs above efficient cost to subsidise initial take-up of voice subscriptions at a fixed location.<sup>563</sup> However, evidence points to take-up of fixed voice services being relatively mature, if not somewhat declining.

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<sup>561</sup> Network externalities (which can be either positive or negative) are the effects on the value of a product or service arising from the number of users of that product or service. In the case of fixed telephony, positive network externalities arise as more users join a network, and it becomes more attractive to both existing and potential users. A tariff-mediated network externality is a network externality which is created or supported by a Service Provider's decision to price on-net calls more favourably than off-net calls, thereby increasing the attractiveness of the 'on-net' network for users, while simultaneously making other networks more expensive to access, and therefore less attractive. One effect of tariff-mediated network externalities is that a user is likely to join the network which is most used by their peer group.

<sup>562</sup> Retail pricing flexibility is not solely determined by termination rates, and is also impacted by retail costs and other network costs associated with the provision of the services (such as call origination etc.).

<sup>563</sup> Thus, in theory, the undertaking incurs a loss on recruiting each new subscriber to the network, but recovers this loss at retail level by means of a higher termination rate charge to other networks at wholesale level. As a second-order effect, however, where all undertakings engage in this conduct, this may lead to an increase in retail call charges, as each undertaking passes on the costs of paying termination rates to its own subscribers.

- 7.90 Call externalities, on the other hand, recognise that both the calling party and the called party can derive utility from the interaction. If this two-sided aspect to calling relationships is not taken into account, then FTRs set above efficient costs could result in the calling party initiating an inefficiently low number of calls from the called party's perspective. This is because, where the calling party network passes the costs of FTRs down to its subscribers, the calling party will make fewer calls to subscribers of the network levying the high FTR than would otherwise be the case, *ceteris paribus*. The existence of receiver benefits can have important implications for the way in which FTRs are set to maximise efficiency and overall welfare.
- 7.91 **Productive efficiency** concerns firms minimising their total costs with respect to production technology. Pricing above efficient cost can also reduce FSPs' incentives to innovate and increase efficiency, as inefficient FTRs are paid for by competitors and, in turn, by their competitors' customers. It is important to note, however, that incentives to minimise costs also depend on the strength of retail competition. The network used to provide FVCT is also generally used to deliver other retail services. Hence, the degree of competition in the retail market and the extent to which this drives cost efficiency on the network should also impact on the cost efficiency of inputs used to deliver wholesale termination.
- 7.92 If the retail market alone does not provide sufficient incentives for efficient service operation, low wholesale costs and an FTR based on the efficient cost of FVCT would likely provide some encouragement to FSPs to be efficient.
- 7.93 **Dynamic efficiency** concerns the optimal rate of innovation and investment such that productive efficiency improves over time. The European Commission, in its Explanatory Note to the 2009 Termination Rates Recommendation recognises that efficient investment and innovation should be encouraged sustainably across all telecoms markets, for instance, by ensuring that termination rates do not distort or restrict competition. If FTRs are set in line with efficient costs, this will create the correct economic environment for dynamic efficiency as it would lower financial barriers to entry/expansion faced by late entrants with large off-net traffic outflows. Rivalry amongst Service Providers would, in turn, encourage innovation and cost efficiency over time.

7.94 Regulatory stability promotes undertakings' incentives to invest and innovate, and can thereby promote dynamic efficiency. As also noted by the European Commission,<sup>564</sup> inconsistencies in the methodologies and practices applied when regulating termination rates across EU Member States contribute to a lack of transparency and legal uncertainty for SMP Service Providers. Furthermore, it can increase the regulatory burden on existing operators active on termination markets in multiple Member States. As a result, Service Providers must package their services in different ways to satisfy divergent regulatory requirements in different Member States. According to the European Commission *"This can affect operators' incentives to enter certain national markets and thus distort cross-border competition and investment"*.<sup>565</sup> Hence, a coherent pan-European approach to regulating FVCT is desirable for facilitating efficient investment and entry decisions, and dynamic efficiency over time.

## Relevant MVCT Markets

### Impacts on Competition

- 7.95 As set out in paragraphs 7.34 to 7.45 above, excessive termination rates may distort markets and reduce retail competition. Moreover, since MTRs form part of the cost base for an off-net call to a mobile (whether originating from another MSP or FSP), excessive MTRs would likely result in the retail cost of such calls being priced at inefficiently high levels, with terminating MSPs using the excessive MTR profits to cross subsidise<sup>566</sup> and lower the price of their own retail services (such as access, handset or on-net call prices).
- 7.96 A 2014 analysis by Genakos and Valetti<sup>567</sup> has stated that a 10% decrease in MTRs due to regulation results in the mobile prices of the terminating MSP increasing by between 2% and 15%, with an average price increase of 5%. The authors also note that this 'waterbed effect',<sup>568</sup> while large, is not complete in that the full reduction in MTRs is not entirely passed through to lower retail prices, with some of the excess profit earned being retained by the MSP.

<sup>564</sup> [European Commission Staff Working Document](#) accompanying the European Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU, Implications for Industry, Competition and Consumers, 9 May 2009.

<sup>565</sup> Ibid, p. 9.

<sup>566</sup> Depending on the intensity of retail competition and the ability to successfully price discriminate at the retail level, MSPs may decide to retain the excessive profit earned and not cross-subsidise retail services.

<sup>567</sup> Genakos, C. and T. Valetti, 2014. "Evaluating a Decade of Mobile Termination Rate Regulation", at p.2, available at <http://cep.lse.ac.uk/pubs/download/dp1282.pdf>

<sup>568</sup> "By cutting termination rates, regulators have benefited those fixed users calling mobile phones from the fixed networks. However, reducing the level of F2M termination rates can potentially increase the level of prices for mobile subscribers, causing what is known as the "waterbed" (or "seesaw") effect. The negative relationship between F2M termination rates and prices paid by mobile consumers is a rather strong theoretical prediction that holds under many assumptions about the details of competition among mobile operators" (Genakos & Valetti, at p.5).

- 7.97 Distorted pricing signals could also raise distributional concerns, whereby customers who predominantly make off-net mobile-to-mobile calls or fixed-to-mobile calls are disadvantaged vis-à-vis those customers that make mostly on-net mobile-to-mobile calls or receive calls to their mobiles. In this regard, even though some or all of the profit earned from excessive MTRs is passed on by MSPs to their retail subscribers in the form of lower prices, subscribers of other Service Providers are still disadvantaged, as they do not receive such benefits.
- 7.98 Competition between MSPs could also be reduced, particularly with respect to smaller or new entrant MSPs, whose subscribers are more likely to make more off-net than on-net calls (given the size of their subscriber base). In these circumstances, excessive MTRs may foreclose a new entrant MSP.

## Impacts on Efficiency

- 7.99 Paragraphs 7.95 to 7.98 above set out in detail the impacts of competition problems on allocative, productive and dynamic efficiencies, and these impacts apply equally on the Relevant MVCT Markets. In this regard, consumers would face inefficient signals on the pricing of on-net mobile calls, off-net mobile-to-mobile calls, and fixed-to-mobile calls. These effects may result in consumers being deterred from making off-net calls to mobiles from FSPs or off-net MSPs. This could have the effect of distorting competition amongst MSPs and between FSPs and MSPs. In particular, consumer choice between RMTS and RFTS would be distorted due to differences in the relative retail prices of fixed-to-mobile and mobile-to-mobile calls that do not reflect the underlying costs involved in providing MVCT. Consumers that make large amounts of on-net mobile-to-mobile calls are, in effect, subsidised by consumers who make off-net calls (whether originating from FSPs or off-net MSPs).
- 7.100 Excessive pricing can also reduce MSPs' incentives to innovate and increase efficiency, as inefficient MTRs are paid for by competitors and, in turn, by consumers.
- 7.101 Asymmetries between MSPs' MTRs that are not based on objective cost differences can also distort competition amongst MSPs, as the higher MTR creates a cross-subsidy which can simultaneously reduce the other MSPs' investment incentives.

## Overall Preliminary conclusion on competition problems

7.102 In summary, ComReg's preliminary view is that, absent regulation, Service Providers with SMP in the Relevant Termination Markets have the ability and incentive to engage in exploitative and exclusionary behaviours which would impact on competition and customers. ComReg has provided examples of potential competition problems and their potential impact. As a consequence, it is ComReg's preliminary view that the imposition of appropriate *ex ante* remedies is considered both justified and necessary. These remedies are discussed in Section 8.

**Q. 8. Do you agree that the competition problems and the associated impacts on competition and consumers which are identified in this Section are those which could potentially arise in the Relevant FVCT Markets? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**

**Q. 9. Do you agree that the competition problems and the associated impacts on competition and consumers which are identified in this Section are those which could potentially arise in the Relevant MVCT Markets? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.**



## 8 Approach to Specifying and Implementing Remedies in the Relevant Termination Markets

- 8.1 In Section 7, ComReg identified a range of competition problems and competition or consumer impacts that, absent regulation, could arise in each of the Relevant Termination Markets due to the ability and incentives of the Proposed SMP Service Providers to engage in a range of anti-competitive behaviours. This Section sets out those remedies (or obligations) which ComReg considers appropriate and proportionate to impose on the Proposed SMP Service Providers, in order to address these identified competition problems.
- 8.2 In accordance with Regulation 8(1) of the Access Regulations, where a Service Provider is designated as having SMP on a relevant market, ComReg is required to impose on that Service Provider such obligations as it considers appropriate, as set out in Regulations 9 to 13 of the Access Regulations. In this regard, the obligations that may be imposed by ComReg on SMP undertakings relate to:
- (a) Access;
  - (b) Transparency;
  - (c) Non-Discrimination;
  - (d) Price Control and Cost Accounting; and
  - (e) Accounting Separation.
- 8.3 In addition, Regulation 8(6) of the Access Regulations provides that any obligations imposed must be:
- (a) Based on the nature of the problem identified;
  - (b) Proportionate and justified in the light of the objectives laid down in Section 12 of the Communications Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations; and
  - (c) Only imposed following public consultation and notification of the draft measures to the European Commission, BEREC and other NRAs, in accordance with Regulation 12 of the Framework Regulations.
- 8.4 Regulations 12(1) and 12(4) of the Access Regulations also provide statutory criteria that ComReg must take into account before imposing access obligations on an SMP undertaking. These criteria include, *inter alia*, examining the technical and economic viability of using or installing competing facilities; the feasibility of providing access; the initial investment outlay by the undertaking; and the need to safeguard competition in the long term.

- 8.5 Regulations 13(2) and (3) of the Access Regulations provide that ComReg is also required to take into account:
- (a) The investment made by the SMP operator which ComReg considers relevant, allowing that operator a reasonable rate of return on adequate capital employed, taking into account any risks involved specific to a particular new network investment project; and
  - (b) Ensuring that any cost recovery mechanism or pricing methodology that ComReg imposes serves to promote efficiency and sustainable competition, and maximises consumer benefits.
- 8.6 The considerations set out in paragraphs 8.3 to 8.5 are taken into account, as appropriate, when assessing what, if any, obligations to impose and are also discussed in the context of the Regulatory Impact Assessment ('**RIA**') set out in Section 9.
- 8.7 In considering the imposition of appropriate remedies on Service Providers to be designated with SMP, ComReg also takes into account:
- (a) Any relevant comments letters issued by the European Commission to NRAs pursuant to Articles 7 and 7a of the Framework Directive regarding its review of regulatory measures notified under the EU consultation mechanism for electronic communications services (the '**Comments Letters**');
  - (b) The European Commission's 2009 Termination Rates Recommendation; and
  - (c) The European Commission's 2005 Accounting Separation and Cost Accounting Recommendation.<sup>569</sup>

## Option of No Regulation

- 8.8 ComReg has considered whether the option of de-regulation (in the case of existing regulation) or regulatory forbearance is appropriate in the Relevant Termination Markets.

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<sup>569</sup> European Commission Recommendation of 19 September 2005 on accounting separation and cost accounting systems under the regulatory framework for electronic communications (2005/698/EC) ('**2005 Accounting Separation and Cost Accounting Recommendation**').

- 8.9 Where a Service Provider has been designated with SMP, Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations require ComReg to impose the appropriate specific regulatory obligations, which requires at least some level of regulation to be imposed. In Section 6, ComReg sets out its view that none of the Relevant Termination Markets are effectively competitive (nor are they likely to become effectively competitive within the timeframe covered by this market review). In Section 7, ComReg identified a range of competition problems that could occur in the Relevant Termination Markets, absent regulation.
- 8.10 Accordingly, absent the imposition of remedies on the Relevant Termination Markets, it is ComReg's preliminary view that these markets are unlikely to function effectively, and, consequently, downstream markets are similarly unlikely to function effectively. In the context of interconnection negotiations between Service Providers to be designated with SMP and other Service Providers, access could be denied or effectively refused, thereby resulting in subscribers of one Service Provider being unable to make calls to, or receive calls from, the subscribers of another Service Provider. Similarly, termination rates could be set at an excessive or inefficient level, thereby effectively impacting on access arrangements.
- 8.11 It is ComReg's preliminary view, therefore, that the option of regulatory forbearance or no regulation in each of the Relevant Termination Markets is not appropriate or justified. Therefore, the relevant issue to be considered is what form of regulation is appropriate, and which of the remedies identified are appropriate, having regard to the particular circumstances of the Relevant Termination Markets and the associated competition problems. ComReg sets out its preliminary views on these issues as outlined below:
- (a) Existing remedies in the Relevant FVCT Markets (discussed in paragraphs 8.12 to 8.27)
  - (b) Proposed Remedies in the Relevant FVCT Markets (discussed in paragraphs 8.28 to 8.203)
  - (c) Existing remedies in the Relevant MVCT Markets (discussed in paragraphs 8.204 to 8.212)
  - (d) Proposed Remedies in the Relevant MVCT Markets (discussed in paragraphs 8.213 to 8.309)

## Remedies for the Relevant FVCT Markets

### Existing Remedies in the Relevant FVCT Markets

- 8.12 The 2007 FVCT Decision designated Eircom, BT Ireland, Verizon, UPC (now Virgin Media), Colt, Smart Telecom (now Viatel) and Magnet Networks with SMP in the Relevant FVCT Markets (together, the ‘2007 SMP MSPs’).<sup>570</sup> Consequently, each of these FSPs is subject to regulatory obligations, specifically:
- (a) In the case of BT Ireland, Verizon, UPC (now Virgin Media), Colt, Smart Telecom (now Viatel) and Magnet Networks, obligations in respect of transparency, non-discrimination and price control were imposed; and
  - (b) In the case of Eircom, obligations in respect of access to, and use of, specific network facilities, transparency, non-discrimination, price control and cost accounting, and accounting separation were imposed.
- 8.13 The 2011 Decision<sup>571</sup> amended both the transparency and price control obligations in respect of Eircom alone, while the 2012 Pricing Decision imposed and/or amended the price control and cost accounting obligations on all 2007 SMP FSPs.
- 8.14 The 15 Newly Proposed SMP FSPs<sup>572</sup> have not, to date, been subject to SMP regulation in the Relevant FVCT Markets and consequently have not had any obligations imposed upon them.
- 8.15 A non-exhaustive summary of existing obligations is set out below in paragraphs 8.16 to 8.27.

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<sup>570</sup> Viatel was not designated with SMP in the 2007 FVCT Decision. However, Smart Telecom was designated with SMP pursuant to the 2007 FVCT Decision. Digiweb acquired Smart Telecom in December 2009, and Digiweb then merged with Viatel in 2013. Similarly, at the time of the 2007 FVCT Decision, Ntl Communications (Ireland) Limited and Chorus Communications Limited were in the process of merging under the UPC heading. UPC subsequently rebranded as Virgin Media in 2015, following Liberty Global’s acquisition of Virgin Media UK in 2013. Accordingly, per section 3.2 of the Decision Instrument appended to the 2007 FVCT Decision, businesses now operated by Viatel and Virgin Media have previously been, and continue to be, subject to SMP remedies in the current Relevant FVCT Markets.

<sup>571</sup> ComReg Decision D07/11, Wholesale Call Origination and Wholesale Call Termination Markets: Response to Consultation Document No. 10/76 and decisions amending price control obligations and withdrawing and further specifying transparency obligations ( hereafter, “the 2011 Decision”).

<sup>572</sup> As identified in Table 15 above.

## Existing Transparency Remedies in Relevant FVCT Markets

- 8.16 Pursuant to the 2007 FVCT Decision and subsequent decisions, Eircom is subject to transparency obligations whereby it must publish information in relation to interconnection and access. This includes specific obligations on Eircom to:
- (a) Publish and keep updated on its wholesale website a Reference Interconnect Offer ('**RIO**') in respect of wholesale access products, features or additional associated facilities;
  - (b) Ensure that the RIO is sufficiently unbundled to ensure that undertakings are not required to pay for facilities which are not necessary for the service requested;
  - (c) Ensure that the RIO includes a description of the relevant offerings broken down into components according to market needs and a description of the associated terms and conditions, including prices;<sup>573</sup>
  - (d) Ensure that the RIO contains details of the terms and conditions of access in respect of facilities already granted; and
  - (e) Make public information, such as accounting information, technical specifications, network characteristics, terms and conditions for supply and use, and prices, in respect of wholesale access products, features or additional associated facilities, as specified by ComReg from time to time.
- 8.17 In so far as FVCT is concerned, the subsequent 2011 Decision, further amending the price control obligation and withdrawing and further specifying the transparency obligations set out in the 2007 FVCT Decision, specifically requires Eircom to publish detailed documentation on all terms (other than price), conditions, service level agreements, guarantees and other product-related assurances associated with its provision of FVCT within its Wholesale SV Services.<sup>574</sup> ComReg notes that the 2011 Decision<sup>575</sup> was further amended by the 2015 FACO and Transit Decision, in particular, with respect to the elements of a margin squeeze test associated with the access and call origination components of Eircom's Wholesale SV Services.

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<sup>573</sup> Eircom was also required to continue to publish the call termination schedules, prices, product descriptions and inter-operator process manuals contained in "Core RIO document Version 3.14" (as amended from time to time) and Eircom RIO Price List Version 1.64 (as amended from time to time).

<sup>574</sup> The margin squeeze test imposed under the 2011 Decision concerned the relative pricing by Eircom of its wholesale CO and FVCT products sold within its Wholesale SV Service, and the relative price of its wholesale CO and FVCT products sold on a standalone basis.

<sup>575</sup> In particular, the Decision Instrument entitled "Decision Instrument (Wholesale Call Origination)" annexed to the 2011 Decision was withdrawn and replaced with obligations set out in the 2015 FACO and Transit Decision.

- 8.18 The 2007 Alternative SMP FSPs have an obligation to apply similar terms and conditions to undertakings that obtain, or seek to obtain from them, call termination services, products, and facilities. This includes obligations to:
- (a) Publish on their websites (or make public in an easily accessible manner where no website exists), their prices and associated terms and conditions (and any amendments thereto) in respect of the relevant wholesale call termination services, and
  - (b) Give a minimum of 30 calendar days' notice of a change in their termination rates to other operators.

### **Existing Non-Discrimination Remedies in Relevant FVCT Markets**

- 8.19 The 2007 FVCT Decision places an obligation of non-discrimination on Eircom with respect to the provision of wholesale access products, features and additional associated facilities.<sup>576</sup> In particular, Eircom is required to:
- (a) Apply equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and provide services and information to others under the same conditions and of the same quality as Eircom provides for its own services or those of its subsidiaries or partners; and
  - (b) Ensure that information and services are provided to undertakings according to timescales, on a basis, and of a quality, which are at least equivalent to those provided by Eircom to its retail arms and its associates.
- 8.20 The 2007 Alternative SMP FSPs each have had an obligation imposed upon them to apply similar terms and conditions to undertakings that obtain, or seek to obtain, call termination services, products, and facilities.<sup>577</sup>

### **Existing Access Remedies in the Relevant FVCT Markets**

- 8.21 A range of access obligations are currently imposed solely upon Eircom by virtue of its SMP designation under the 2007 FVCT Decision. These include, *inter alia*, obligations to:
- (a) Negotiate in good faith with undertakings requesting access;
  - (b) Not withdraw access to facilities already granted, and continue to provide access to such facilities in accordance with existing terms, conditions and specifications;
  - (c) Meet reasonable requests for access to specified network elements, network facilities, or both;

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<sup>576</sup> As set out at sub-sections 7.1 and 7.2 of the Decision Instrument contained in the 2007 FVCT Decision.

<sup>577</sup> As set out at sub-section 7.3 of the Decision Instrument contained in the 2007 FVCT Decision.

- (d) Ensure that all reasonable requests for access are expedited in a fair, reasonable and timely manner;
- (e) Grant open access to technical interfaces, protocols or other key technologies that are indispensable for the interoperability of services or virtual network services;
- (f) Provide access to operational support systems or similar software systems necessary to ensure fair competition in the provision of services; and
- (g) Interconnect networks or network facilities.

8.22 The 2007 Alternative SMP FSPs<sup>578</sup> did not have any specific access obligations imposed on them. At the time of the 2007 FVCT Decision, the European Commission commented<sup>579</sup> on ComReg's proposal not to impose an access obligation on the 2007 Alternative SMP FSPs.<sup>580</sup> The European Commission was of the view that any general interconnection obligation stemming from Irish legislation would not swiftly resolve eventual access problems, such as delaying tactics, compared to a more specific access obligation imposed as a result of a market analysis. Therefore, the European Commission invited ComReg to impose effective access obligations on alternative FSPs.

### **Existing Price Control and Cost Accounting Remedies in the Relevant FVCT Markets**

- 8.23 Pursuant to the 2007 FVCT Decision, Eircom is currently subject to a price control obligation of cost orientation, as well as a cost accounting obligation. Eircom's FTRs were initially subject to a pricing model based on forward looking - long run incremental costs ('**FL-LRIC**').
- 8.24 The 2011 Decision, as amended by the 2015 FACO and Transit Decision, also requires Eircom not to apply a margin squeeze when supplying FVCT as part of a Wholesale SV Service.
- 8.25 Under the 2007 FVCT Decision, the 2007 Alternative SMP FSPs were effectively given a derogation from a specific price control obligation until such time as they reached a 5% share of total direct access paths.

<sup>578</sup> BT Ireland, Verizon, UPC (now Virgin Media), Colt, Smart Telecom (now Viatel) and Magnet Networks

<sup>579</sup> Commission Decision concerning Case IE/2007/0701 — Call termination on individual public telephone networks provided at a fixed location in Ireland Article 7(3) of Directive 2002/21/EC. Available online at [https://circabc.europa.eu/webdav/CircaBC/CONNECT/e-cctf/Library/Ireland%20-%20IE/Registered%20notifications/2007/ie20070701/IE-2007-0701%20acte\\_EN.pdf](https://circabc.europa.eu/webdav/CircaBC/CONNECT/e-cctf/Library/Ireland%20-%20IE/Registered%20notifications/2007/ie20070701/IE-2007-0701%20acte_EN.pdf)

<sup>580</sup> However, the 2007 FVCT Decision imposed an obligation of non-discrimination on the 2007 Alternative SMP FSPs, which had the effect of generating access obligations to other Service Providers, where failure to provide such access would amount to discriminatory treatment in violation of the obligation.

- 8.26 This derogation was replaced and amended by the 2012 Pricing Decision, which stipulated that all 2007 SMP FSPs<sup>581</sup>, including the 2007 Alternative SMP FSPs, are subject to price control obligations of cost orientation, specifically a bottom-up ('BU')<sup>582</sup> modelling approach using pure long-run incremental costs ('pure LRIC')<sup>583</sup> as the relevant cost methodology.

## **Existing Accounting Separation Remedies in the Relevant FVCT Markets**

- 8.27 Pursuant to the 2007 FVCT Decision, Eircom is the only SMP FSP that currently has an obligation to maintain separate accounts.

## **Proposed Remedies for the Relevant FVCT Markets**

- 8.28 Having summarised existing remedies in paragraphs 8.16 to 8.27 above, in paragraphs 8.28 to 8.203 below ComReg sets out its preliminary views on the proposed imposition of regulatory obligations on each of the Proposed SMP FSPs, as follows:
- (a) Proposed transparency remedies (discussed in paragraphs 8.32 to 8.47 below);
  - (b) Proposed non-discrimination remedies (discussed in paragraphs 8.48 to 8.60 below);
  - (c) Proposed access remedies (discussed in paragraphs 8.61 to 8.97 below);
  - (d) Proposed price control and cost accounting remedies (discussed in paragraphs 8.98 to 8.173 below); and
  - (e) Proposed accounting separation remedies (discussed in paragraphs 8.174 to 8.183 below).

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<sup>581</sup> As set out at section 4.3 of the FTR Decision Instrument appended to the 2012 Pricing Decision.

<sup>582</sup> A BU modelling approach is derived from an economic and / or engineering model of an efficient network.

<sup>583</sup> Under a pure LRIC approach the relevant increment is the WVCT service and which includes only avoidable costs, i.e. all fixed and variable costs which are incremental to the provision of the wholesale call termination service.



## **Proposed Transparency Remedies for the Relevant FVCT Markets**

### **Overview**

- 8.29 Regulation 9 of the Access Regulations provides that ComReg may, *inter alia*, specify obligations to ensure transparency in relation to access or interconnection which require a Service Provider designated with SMP to make public specified information such as accounting information, technical specifications, network characteristics, prices, and terms and conditions for supply and use, including any conditions limiting access to, or use of, services and applications where such conditions are permitted by law.
- 8.30 Transparency obligations can be standalone, but can also support other obligations being imposed and, as evidenced from the above, usually relate to requirements to make specified information publicly available.
- 8.31 ComReg set out at paragraphs 8.16 to 8.18 above existing FVCT transparency obligations.

### **Proposed Transparency Remedies**

- 8.32 In Section 7, ComReg identified that Proposed SMP FSPs have the ability and incentive to engage in a range of exploitative and/or exclusionary conducts which may impact downstream competition and consumers. The potential for leveraging of SMP into related markets can occur through information asymmetries, delaying tactics such as protracted negotiations in respect of the provision of access to FVCT or associated facilities, and/or seeking unreasonable terms and conditions to grant access.
- 8.33 As noted at Recital 16 of the Access Directive, transparency of terms and conditions for access and interconnection, including prices, serves to speed up negotiations, avoid disputes and give confidence to market players that a service is being provided on non-discriminatory terms. Openness and transparency of technical interfaces can also be particularly important in ensuring interoperability. Transparency on prices (and changes to prices) provides the necessary clarity to buyers of FVCT in order that they can consider impacts on the structure or level of retail prices. Transparency also provides the means to demonstrate that access is provided in a non-discriminatory manner.

- 8.34 In this regard, ComReg is proposing that, as part of a general transparency obligation, pursuant to Regulation 9 of the Access Regulations, each Proposed SMP FSP shall be required to publish a RIO setting out the contractual terms and conditions and technical basis upon which Service Providers can obtain access to FVCT and associated facilities. It is further proposed to require Proposed SMP FSPs to publish FTRs and to provide advance notice of FTR changes to ComReg and to other Service Providers.
- 8.35 In order to ensure and support compliance (and transparency of this) by Proposed SMP FSPs with respect to their price control obligations, ComReg proposes to require such FSPs to provide ComReg with advance pre-notification of any proposed changes to FTRs. In this respect, ComReg is requiring Proposed SMP FSPs to provide 60 (sixty) calendar days' notification in advance of the date on which any such FTR amendments come into effect. In addition, each Proposed SMP FSP will, at the same time, be required to furnish ComReg with a statement confirming that its proposed amendments comply with its price control obligations.
- 8.36 ComReg therefore proposes that, in addition to a general transparency obligation, pursuant to Regulation 9 of the Access Regulations, all Proposed SMP FSPs should be required to do the following:
- (a) To make publicly available and keep updated on its website a RIO, which is the standard offer of contract for access to FVCT and associated facilities;
  - (b) To ensure that the RIO is sufficiently unbundled in order that Service Providers availing of access are not required to pay for services or facilities which are not necessary for the access requested;
  - (c) To ensure that the RIO includes a description of the relevant offerings broken down into components according to market needs and a description of the associated terms and conditions, including prices;
  - (d) To ensure that the RIO includes a description of the technical specifications and network characteristics of the access (including access to FVCT and associated facilities) being offered;
  - (e) To make FTRs publicly available and publish such FTRs in an easily accessible manner on its website. In so doing, it shall publish notice of its intention to amend its FTRs not less than 30 calendar days in advance of the date on which any such amendment comes into effect, unless otherwise agreed with ComReg. Such notice shall, at a minimum, include a statement of the existing FTRs, a description of the proposed new FTRs, and the date on which such new FTRs are proposed to come into effect;

- (f) To provide directly to undertakings with which it has entered into a contract in respect of access to FVCT and associated facilities, written notification of its intention to amend the FTRs. Such written notification is to be provided not less than 30 calendar days in advance of the date on which any such FTR amendment comes into effect, unless otherwise agreed with ComReg. Such notice is also to include, at a minimum, a statement of the existing FTRs, a description of the proposed new FTRs and the date on which such new FTRs are proposed to come into effect;
- (g) To notify ComReg of its intention to amend its published FTRs, not less than 60 calendar days in advance of the date on which any such amendments come into effect, unless otherwise agreed with ComReg. Following notification and approval from ComReg, notify undertakings directly (as outlined in (f) above); and
- (h) To furnish to ComReg at the date outlined in (g) above a statement confirming that its proposed amended FTRs comply with its price control obligations.

8.37 While 21 calendar days' advance notification periods were specified in the 2007 FVCT Decision, ComReg now considers that a 30 calendar day timeframe for advance notification of FTR (and other) changes should achieve an appropriate balance between the need for the Proposed SMP FSPs to be able to make changes speedily, while also recognising the requirements for FVCT purchasers to factor such changes into retail and wholesale pricing decisions and any related billing system changes or developments. In particular, given that many FVCT purchasers do so via indirect interconnection through third-party wholesale transit arrangements, the wholesale billing systems of such third-parties will require amendment to give effect to FTR changes. This may also involve such third-parties providing notification to their wholesale customers.

8.38 In view of current notification arrangements (arising from SMP obligations or commercial practice) in relation to existing FTR publication arrangements, ComReg does not consider that the implementation of the above obligations would place a disproportionate burden on the Proposed SMP FSPs. ComReg does recognise that the obligation to publish a RIO requires some greater level of implementation than, for example, publication of prices on websites. As Eircom is already subject to RIO obligations by virtue of the 2007 FVCT Decision, the level of incremental burden for it is likely to be relatively contained. Furthermore, Eircom's ability and incentives to engage in leveraging behaviour with potential competitive consequences for adjacent markets implies that the level of transparency afforded by a RIO is proportionate and justified by the competition problems identified.

- 8.39 In the case of the 2007 Alternative SMP FSPs, the requirement to publish a RIO is also considered to represent the minimum regulatory obligation consistent with their proposed SMP designation and their ability and incentive to engage in exploitative and discriminatory behaviour. While the 2007 Alternative SMP FSPs are required to publish their prices and terms and conditions of supply on their websites, this RIO obligation would be a completely new obligation for the Newly Proposed SMP FSPs. At the same time, the FTRs of all FVCT suppliers are currently published in Eircom's STRPL. In this regard, the level of additional burden for these FSPs to publish FTRs and future FTR changes in an easily accessible manner on their own publicly available websites would likely be relatively low. Such a requirement to publish FTRs is proportionate and justified to help ensure certainty and transparency in any future interconnect negotiations with such Proposed SMP FSPs. Furthermore, since the RIO is effectively the standard offer of contract for access to FVCT and associated facilities, the additional burden involved in publishing this standard contract should also likely be relatively contained.
- 8.40 As a proportionate measure, ComReg has furthermore proposed that, with respect to the Proposed Alternative SMP FSPs, the RIO be published within 90 calendar days following the effective date of ComReg's decision on this FVCT market analysis. This will allow such FSPs sufficient time to adapt their publication processes accordingly.
- 8.41 In respect of FVCT, the ability and incentives to engage in leveraging behaviours were identified to be stronger in the case of Eircom due to its position across a number of related markets. However, smaller or new entrant FSPs may also potentially effectively impede access with respect to undertakings of a similar size and/or those with which they are directly competing in downstream markets.
- 8.42 ComReg maintains the view that, absent regulation, Eircom would have the ability and incentive to price key inputs at successive levels of the value chain in such a way that could discourage efficient infrastructural investments in interconnection. As noted in paragraph 7.58, this could be achieved, for example, through setting an insufficient space between the relative prices for FVCT when sold on a stand-alone basis to interconnected operators and FVCT when sold as part of (end-to-end) Wholesale SV Services. The extent to which the application of the proposed price control methodology would serve to mitigate this margin squeeze risk in respect of the FVCT component of Eircom's Wholesale SV Service is set out in paragraph 8.123.

8.43 Notwithstanding this, ComReg is of the preliminary view that the present transparency obligation should continue in order to ensure visibility of Eircom's non-price behaviour in respect of the FVCT component of its Wholesale SV Service, and to safeguard against possible discrimination on non-price parameters, which was also identified as a competition risk in Section 7. To address these specific concerns, ComReg therefore proposes that Eircom should continue to be subject to an additional obligation requiring it to:

- (a) publish detailed documentation on all terms (other than price), conditions, service level agreements, guarantees and other product-related assurances associated with its provision of call origination and call termination within its Wholesale SV Services;

8.44 The above transparency obligations must also be implemented by SMP FSPs in a manner that is consistent with other obligations such as those relating to access, non-discrimination and price control.

### **Overall preliminary conclusion on Proposed Transparency Remedies for the Relevant FVCT Markets**

8.45 Having regard to the analysis set out at paragraphs 8.29 to 8.44 above, ComReg proposes that all Proposed SMP FSPs are subject to the requirements set out in paragraphs 8.36(a) to (g), with Eircom also being subject to the additional obligation set out in paragraph 8.43(a) above.

8.46 ComReg has also considered whether transparency obligations alone would be sufficient to address the competition problems identified in Section 7 and does not consider this to be the case. For example, excessive pricing, constructive denial of access problems or poor service quality issues could still occur in the presence of a transparency obligation.

8.47 ComReg considers that the imposition of the above transparency obligations is both proportionate and justified, having regard to the competition problems identified in Section 7. ComReg therefore proposes that all Proposed SMP FSPs should have transparency obligations imposed upon them. Furthermore, it is ComReg's preliminary view that it is not objectively justified to adopt an alternate approach for the Newly Proposed SMP FSPs that ComReg is proposing to designate with SMP for the first time.

### **Proposed Non-Discrimination Remedies for the Relevant FVCT Markets**

#### **Overview**

8.48 As noted at Recital 17 of the Access Directive, the principle behind non-discrimination is to ensure that undertakings with SMP do not distort competition, particularly where they are vertically-integrated and supply services to undertakings with whom they compete on downstream markets.

- 8.49 Regulation 10 of the Access Regulations provides that ComReg may impose non-discrimination remedies in relation to access or interconnection on a Service Provider designated with SMP, in particular to ensure that it:
- (a) Applies equivalent conditions in equivalent circumstances to other undertakings providing equivalent services; and
  - (b) Provides services and information to others under the same conditions and of the same quality as it provides for its own services or those of its subsidiaries or partners.
- 8.50 Non-discrimination obligations can be standalone, and can also support other obligations, such as those relating to access, transparency and price control.
- 8.51 ComReg has set out at paragraphs 8.19 to 8.20 the existing FVCT non-discrimination obligations.

### **Non-Discrimination Remedies for the Relevant FVCT Markets**

- 8.52 The application of an *ex ante* non-discrimination remedy is designed to prevent a vertically-integrated SMP FSP from engaging in discriminatory (price or non-price) behaviour which would hinder the development of sustainable and effective competition in downstream retail markets. In Section 7, ComReg identified that a SMP FSP has the ability and incentive to engage in behaviours which may negatively impact downstream competition and consumers. For example, SMP FSPs could offer different FTRs, terms and conditions, and service quality, to other Service Providers purchasing FVCT. Equally, a SMP FSP could degrade inbound traffic from other undertakings relative to its own terminating traffic.
- 8.53 Accordingly, pursuant to Regulation 10 of the Access Regulations, ComReg proposes that all Proposed SMP FSPs be required to:
- (a) apply equivalent conditions, including in respect of FTRs or other charges, in equivalent circumstances to other undertakings requesting or being provided with access (including access to FVCT and associated facilities) or requesting or being provided with information in relation to such access; and
  - (b) ensure that access (including access to FVCT and associated facilities) and information relating to such access are provided to all other undertakings under the same conditions and of the same quality as the FSP designated with SMP provides to itself or to its subsidiaries, affiliates or partners.

- 8.54 Additionally, and for the avoidance of doubt, the non-discrimination obligations above are to apply irrespective of whether or not a specific request for services or information has been made by an undertaking to the relevant SMP FSP. For example, if information or a service is provided by a SMP FSP following a request from one undertaking, the SMP FSP is obliged to offer the same information or service to other undertakings, notwithstanding that such other undertakings have not made a request for it. This is to ensure fair treatment of all Service Providers.
- 8.55 ComReg has considered whether the non-discrimination obligations above should specifically require the SMP FSP to apply the same FTRs to other undertakings as those applied to self-supplied termination, given the potential competition problems of excessive and discriminatory pricing. It is ComReg's view that, in the specific circumstances of voice termination services, this issue is more appropriately and proportionately dealt with in the context of a price control obligation.
- 8.56 In respect of the Relevant FVCT Markets, ComReg concluded in Section 7 that the ability and incentive to engage in discriminatory behaviour were particularly strong in the case of Eircom in view of its position across a number of related markets. However, smaller or new entrant FSPs may also effectively impede access with respect to undertakings of a similar size and/or those with which they are directly competing in the downstream market.
- 8.57 In the case of the Relevant FVCT Markets, new forms of interconnection may emerge over the period of this market review (such as IP interconnection), facilitated by the development of next generation networks. ComReg considers that, where new forms of interconnection are provided by a SMP FSP to one undertaking (including that which is provided by the SMP FSP to itself or to its subsidiaries, affiliates or partners) in respect of FVCT access and associated facilities, the SMP FSP should offer equivalent terms to other Service Providers.

### **Overall preliminary conclusion on proposed Non-Discrimination Remedies for the Relevant FVCT Markets**

- 8.58 Having regard to the analysis set out at paragraphs 8.48 to 8.57 above, ComReg proposes to impose the following non-discrimination obligations on Proposed SMP FSPs:
- (a) Requirement to apply equivalent conditions, including in respect of FTRs or other charges, in equivalent circumstances to other undertakings requesting or being provided with access (including access to FVCT and associated facilities); and

- (b) Requirement to ensure that access (including access to FVCT and associated facilities) and information are provided to all other undertakings under the same conditions and of the same quality as the FSP designated with SMP provides to itself or to its subsidiaries, affiliates or partners.
- 8.59 ComReg has also considered whether non-discrimination obligations alone would be sufficient to address the competition problems identified in Section 7 and does not consider this to be the case. For example, excessive pricing, constructive denial of access problems or poor service quality issues could still occur in the presence of a non-discrimination obligation.
- 8.60 ComReg considers that the imposition of the above non-discrimination obligations is both proportionate and justified, having regard to the competition problems identified in Section 7. ComReg therefore proposes that all Proposed SMP FSPs should have non-discrimination obligations imposed upon them. Furthermore, it is ComReg's preliminary view that, given the similarity in the competition issues to be addressed, it is not objectively justified to adopt an alternate approach for the Newly Proposed FSPs that ComReg is proposing to designate with SMP for the first time.

## **Proposed Access Remedies for the Relevant FVCT Markets**

### **Overview**

- 8.61 Regulation 12(1) of the Access Regulations provides that ComReg may, in accordance with Regulation 8 of the Access Regulations, impose on an operator obligations to meet reasonable requests for access to, and use of, specific network elements and associated facilities where ComReg considers that the denial of such access, or the imposition by operators of unreasonable terms and conditions having similar effect, would:
- (a) Hinder the emergence of a sustainable competitive retail market,
  - (b) Not be in the interests of end users, and
  - (c) Otherwise hinder the objectives set out in Section 12 of the Communications Regulation Act 2002 (as amended).
- 8.62 Regulations 12(2)(a) to (j) and Regulation 12(3) of the Access Regulations provide that ComReg can impose, where appropriate, additional access obligations and may attach conditions covering fairness, reasonableness and timeliness to those proposed access obligations.



- 8.63 Pursuant to Regulation 12(4) of the Access Regulations, when considering whether to impose the obligations referred to in paragraphs (1) and (2) of Regulation 12 and, in particular, when assessing whether such obligations would be proportionate to the objectives set out in Section 12 of the Communications Regulation Act 2002 (as amended), ComReg takes the following factors into account:
- (a) The technical and economic viability of using or installing competing facilities, in light of the rate of market development, taking into account the nature and type of interconnection and access involved;
  - (b) The feasibility of providing the access proposed, in relation to the capacity available;
  - (c) The initial investment by the facility owner, bearing in mind the risks involved in making the investment;
  - (d) The need to safeguard competition in the long-term;
  - (e) Where appropriate, any relevant intellectual property rights; and
  - (f) The provision of pan-European services.
- 8.64 ComReg has described the existing FVCT Access remedies at paragraphs 8.21 to 8.22 above.

### **Access Remedies for the Relevant FVCT Markets**

- 8.65 Service Providers are wholly dependent on having access to FVCT services and associated facilities supplied by the proposed SMP FSPs, in order to enable their subscribers to make voice calls to subscribers of the Proposed SMP FSPs. ComReg has preliminarily concluded that the Proposed SMP FSPs<sup>584</sup> have the ability and incentive<sup>585</sup> to refuse, or effectively refuse, to provide interconnection and access to FVCT and associated facilities to their downstream competitors, or to provide these services on discriminatory or unreasonable terms and conditions (including in relation to price and quality).
- 8.66 It is ComReg's preliminary view that each of the Relevant FVCT Markets is (and will continue to be over the period intended to be covered by this review) characterised by differences in CBP<sup>586</sup> between SMP FSPs and buyers of FVCT services, particularly given the absence of credible alternative sources of supply of FVCT.

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<sup>584</sup> As set out paragraph 6.228 above.

<sup>585</sup> For further details, please refer to paragraph 7.54.

<sup>586</sup> ComReg has considered the impact of Countervailing Buyer Power (CBP) in Section 6 in the context of SMP.

- 8.67 A denial of interconnection and access to FVCT and associated facilities, or the imposition of unreasonable terms and conditions having similar effect, would, in ComReg's view, ultimately hinder the emergence of sustainable competitive retail markets in which Service Providers and other undertakings purchasing FVCT compete. Actual or constructive denial of access would ultimately be detrimental to the interests of end users and would also otherwise hinder the objectives set out in Section 12 of the Communications Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations.
- 8.68 ComReg notes that smaller or new entrant FSPs providing FVCT (which have lower subscriber numbers or traffic flows relative to other Service Providers) may face fewer incentives to refuse or delay access compared to larger and more established FSPs. This asymmetry of incentives principally arises due to the need for smaller or new entrant FSPs to ensure that their subscribers can receive calls from subscribers of other FSPs which, in turn, can ensure the growth of their subscriber base. However, such smaller or new entrant FSPs may effectively refuse or delay access (by extending negotiations or imposing unreasonable terms and conditions) with a view to extracting an inefficient termination rate. In particular, they may engage in such behaviour with respect to undertakings of a similar size and/or those with which they are directly competing in downstream retail markets.<sup>587</sup>
- 8.69 Given the scope for such behaviour, and absent any regulatory obligation to provide access, access disputes would be considered by ComReg through its dispute resolution or compliance functions. This process would occur after the fact; take time to resolve;<sup>588</sup> be specific to the bilateral circumstances between the relevant parties; and would not thereby contribute to regulatory certainty among market players. The resulting regulatory uncertainty would, as a consequence, likely be damaging to downstream competition and, ultimately, consumers. Case-by-case interventions by ComReg would also be inefficient and ineffective in resolving the broader competition problem of denial of access, or delayed access by a SMP Service Provider.

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<sup>587</sup> For further information, please refer to pricing analysis set out at paragraphs 6.80 to 6.88 above, which shows that a number of smaller FSPs have higher FTRs than the regulated FTRs charged by the 2007 SMP FSPs.

<sup>588</sup> Including time for ComReg to consider the dispute, along with possible public consultation and notification to the European Commission.

- 8.70 In this regard, the European Commission has issued several Comments Letters<sup>589</sup> under Article 7/7a of the Framework Directive, on the imposition by NRAs of both SMP obligations pursuant to findings of SMP following a market analysis, and the imposition of SMP-type obligations on non-SMP undertakings pursuant to the exercise of dispute resolution functions. Such comments highlight the importance of effective remedies imposed through a formal market analysis process, including the imposition of access (and other) obligations on all SMP Service Providers.
- 8.71 ComReg considers that the access obligations set out below should, therefore, be imposed on all Proposed SMP FSPs, as these obligations will promote regulatory predictability and ensure that Proposed SMP FSPs operating in similar market circumstances are treated, from a regulatory perspective, in an equivalent and consistent manner. The specific access remedies which ComReg proposes to impose on each of the Proposed SMP FSPs are set out below.

#### **Requirement to provide access to FVCT and Associated Facilities**

- 8.72 Pursuant to Regulation 4 of the Access Regulations, ComReg considers that an obligation on Proposed SMP FSPs to meet reasonable requests for access and to specifically provide access to FVCT services is required to facilitate competition in downstream markets. ComReg proposes that such FSPs will also be required to meet all reasonable requests from other undertakings for the provision of access and, in so doing, shall provide access to FVCT and associated facilities necessary to support such access.

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<sup>589</sup> See European Commission comments and [BEREC Opinions](#) (where made) on Polish cases [PL/2010/1127](#), [PL/2011/1273](#), [PL/2011/1255-1258](#) and Latvian case [LV/2012/1296](#), all of which related to MVCT markets.

8.73 ComReg is proposing to impose an obligation to provide access to all necessary information required to terminate calls as an associated facility in the FVCT Market. ComReg notes that Fixed Number Portability ('FNP') subscribers can retain their fixed telephone number when switching their service to another FSP. Given FNP, Service Providers seeking to purchase FVCT will need to be in a position to identify the routing details associated with individual telephone numbers, with such information being under the control of the Proposed SMP FSP. ComReg considers that the ability for Service Providers purchasing FVCT to have efficient and effective access to this routing information is necessary to facilitate the accurate and efficient routing of calls to ported fixed telephone numbers and, therefore, FVCT. Absent access to this, originating Service Providers directly interconnected with FSPs will have no direct means of knowing to which terminating FSP a call should be routed. This could result in inefficient routing of a call. ComReg sets out below its assessment of the factors listed in paragraph 8.63 above in respect of the proposed access obligations.

- (a) ***Technical and economic viability of using or installing competing facilities:*** In Sections 5 and 6, ComReg defined the Relevant FVCT Markets, and set out its preliminary view that existing competition, potential competition and CBP are unlikely to result in effective competition in each of these markets. In light of this, and having regard to the presence of barriers to entry in such markets (related to control of infrastructure/resources not easily duplicated), using or installing competing facilities to provide FVCT is not likely to be technically or economically feasible. Each of the Proposed SMP FSPs provide or have offered to provide interconnection and access to FVCT (albeit in some cases in the presence of regulation), as well as to associated facilities necessary to ensure end-to-end interoperability of the services.
- (b) ***Feasibility of providing access in relation to capacity available:*** Access to FVCT and associated facilities is currently provided by FSPs, either on foot of existing regulatory obligations or commercially, where such obligations do not exist. On a forward-looking basis, ComReg is not aware of any material capacity constraints that would give rise to Proposed SMP FSPs facing material difficulties in meeting the proposed access obligations.

- (c) **The initial investment of the facility owner:** Having regard to Regulation 12(4)(c) of the Access Regulations, ComReg's proposed approach to imposing access remedies is based on principles that, *inter alia*, allow a reasonable rate of return on adequate capital employed, taking into account the risks involved. When applying price control remedies (see paragraphs 8.98 to 8.102 below, and the Separate Pricing Consultation), ComReg will be mindful of facilitating the development of effective and sustainable competition to the benefit of consumers without compromising efficient entry and investment decisions of undertakings over time. ComReg is also mindful of the role of regulatory transparency and consistency in contributing to a more predictable environment conducive to long-run investment. ComReg will ensure that, in setting an appropriate price control, FSPs designated with SMP recover those efficiently incurred costs which are relevant to the provision of access to FVCT.
- (d) **The need to safeguard competition:** ComReg has highlighted in Section 7 the impacts on downstream competition and consumers that could arise from Proposed SMP FSPs engaging in exploitative or exclusionary behaviours in the Relevant FVCT Markets (absent regulation). These include, *inter alia*, excessive pricing and leveraging behaviours which would give rise to distortions in downstream competition among Service Providers. ComReg considers that imposing access (and other obligations) in the Relevant FVCT Markets will safeguard the long-term development of competition in downstream markets, thereby benefiting consumers.
- (e) **Intellectual property rights:** ComReg's preliminary view is that intellectual property rights are not a concern in the context of the provision of access to FVCT and associated facilities in the Relevant FVCT Markets.
- (f) **Pan-European services:** ComReg is of the preliminary view that its proposed approach will facilitate the provision of pan-European services, as the approach is consistent with the policies of the European Commission and other NRAs. Consistent regulation of voice call termination across the EU will support the seamless provision of pan-European services by allowing Service Providers in other EU Member States to provide electronic communications services in the State. For example, calls originating in the EU outside the State, but destined for an Irish subscriber will require access to FVCT.
- 8.74 ComReg considers that it is appropriate to place an obligation on Eircom (and Eircom alone) to grant access to certain associated facilities for the purpose of interconnection associated with Eircom's FVCT service. The reasoning for doing so is that it is appropriate to oblige Eircom to facilitate interconnection when terminating calls on its network, having regard to the multiple and deep levels of interconnection required by Service Providers handing over such calls to Eircom.

- 8.75 If an interconnection access obligation is placed on Eircom, it follows that an obligation should also be placed on Eircom to conclude SLAs in respect of such access.
- 8.76 In respect of FVCT in particular, as part of its SMP obligations, it is expressly foreseen that Eircom shall provide and grant access to specific interconnection services as a form of associated facility to FVCT. This obligation is needed to support Eircom's general access obligation because Eircom could otherwise potentially impede/raise the costs of effective handover of calls for termination to fixed numbers on its network, thus undermining the effectiveness of the general access obligation.
- 8.77 As Eircom has ubiquitous network coverage, the provision of Interconnection Services<sup>590</sup> (including interconnection paths)<sup>591</sup> by Eircom is required to provide other FSPs with a mechanism for reaching all points on the Eircom network to which they need to interconnect in order to use the FVCT services provided by Eircom in the most efficient fashion possible. As other FSPs do not have the same network scale or hierarchy, ComReg does not propose to expressly require any other FSPs to provide Interconnection Services to other Service Providers under the current market review.
- 8.78 Different co-location mechanisms exist for Service Providers availing of such Interconnection Services as follows:
- (a) In-Building Handover ('**IBH**'): the connection from the Eircom network to the alternative Service Provider's equipment within the Eircom Exchange, or equivalent facility,
  - (b) In-Span Handover ('**ISH**'): the connection between the Eircom Exchange and the alternative Service Provider's nominated Point of Handover, and
  - (c) Customer-Sited Handover ('**CSH**') does not require any infrastructure build by the Service Provider as Eircom builds to the Service Provider's site.

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<sup>590</sup> "Interconnection Service(s)" means interconnection used for services including FVCT supplied by Eircom and includes IBH, ISH, CSH, and Interconnection Paths.

<sup>591</sup> "Interconnection Path(s)" means the physical and logical transmission path(s) between the ECNs of two Undertakings to facilitate Interconnection.

- 8.79 Recognising the differing levels of infrastructure deployment by Service Providers availing of FVCT, ComReg provisionally considers that the three interconnection services above should be made available by Eircom as part of its general obligation to provide Interconnection Services. For example, not all Service Providers have sufficient network deployments to avail of IBH or ISH. Conversely, if only CSH were available, then larger Service Providers would not be able to take advantage of any deeper infrastructure deployments when terminating calls on Eircom's network.
- 8.80 The availability of these mechanisms also means that Service Providers can request access to these associated facilities in a manner that ensures they are not required to pay for facilities which are unnecessary for the FVCT service requested. Thus, when availing of Eircom's FVCT service, it is proposed that Eircom is required to provide access to the above interconnection products in order to allow Service Providers to efficiently gain access to FVCT supplied by Eircom.
- 8.81 In view of the scope of Eircom's access obligations, ComReg proposes to oblige it to conclude legally-binding and fit-for-purpose Service Level Agreements ('SLAs')<sup>592</sup> with Service Providers with respect to Interconnection Services.

#### **Requirement to negotiate in good faith**

- 8.82 Pursuant to Regulation 12(2)(b) of the Access Regulations, ComReg proposes to impose an obligation on all Proposed SMP FSPs to negotiate in good faith with undertakings requesting access to FVCT and associated facilities. Having regard to the competition problems identified in Section 7, ComReg considers this measure to be proportionate and justified in order to ensure that *bona fide* negotiations take place between Proposed SMP FSPs in relation to access, particularly given that SMP FSPs have the ability and incentive to expressly or constructively refuse to provide FVCT to an undertaking requesting access.
- 8.83 This will also assist in addressing imbalances between the bargaining powers of the respective parties to the negotiation process by reducing incentives to unnecessarily prolong negotiations and will facilitate a more efficient and effective consideration of reasonable requests for access and provision of such access. Overall, an obligation to negotiate in good faith will support the provision of efficient and effective access to FVCT and associated facilities, thereby promoting the development of downstream competition, to the benefit of consumers.

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<sup>592</sup> SLAs are contracts between Eircom and other undertakings in relation to the service levels which Eircom commits to from time to time, as more particularly set out in the RIO. For the avoidance of doubt, however, to the extent that there is any conflict between the SLAs and Eircom's obligations to be set out in the Decision arising from this Consultation, it is the latter which shall prevail.

8.84 ComReg also notes that the obligation to negotiate in good faith implies that the responsibility rests with SMP FSPs to demonstrate that their approach to negotiation with undertakings was in good faith and that any unmet access requests can be shown to be unreasonable by reference to objective criteria. In this regard, with respect to access requests made to Proposed SMP FSPs, recital 19 of the Access Directive states:

*“...such requests should only be refused on the basis of objective criteria such as technical feasibility or the need to maintain network integrity.”*

8.85 ComReg therefore proposes that, should an access request be refused, the objective criteria for refusing same should be provided by the Proposed SMP FSP to the requesting undertaking at the time of refusal. This will also improve regulatory effectiveness and efficiency, should any complaint or dispute be raised with ComReg, as it will provide an audit trail for compliance monitoring purposes.

8.86 In ComReg’s view, this remedy does not impose any significant additional burden on Proposed SMP FSPs beyond that which would normally be expected to occur in circumstances involving fair commercial negotiations between parties.

#### **Requirement not to withdraw access to facilities already granted**

8.87 Pursuant to Regulation 12(2)(c) of the Access Regulations, ComReg proposes to impose on all Proposed SMP FSPs an obligation not to withdraw access to facilities already granted, without the prior approval of ComReg. For the avoidance of doubt, this does not mean there are no objectively justified circumstances for withdrawing access, for example, to ensure network integrity and security.

8.88 Having regard to the competition problems identified in Section 7, ComReg has set out its preliminary view that a Proposed SMP FSP would have the ability and incentive to delay or refuse access to FVCT and access to associated facilities, resulting in restrictions and/or distortions in competition to the detriment of consumers. As networks develop, this could also result in changes to points of interconnection or types of interconnection by such an FSP. ComReg recognises that a balance needs to be struck between the investments of Proposed SMP FSPs in providing FVCT and the investments made by buyers of FVCT in availing of it. However, ComReg considers that the proposed remedy, requiring that Proposed SMP FSPs seek ComReg’s approval prior to any withdrawal of access, will promote regulatory certainty for all parties without unduly restricting investment incentives.



### **Requirement to grant open access to technical interfaces, protocols and other key technologies**

- 8.89 Pursuant to Regulation 12(2)(e) of the Access Regulations, ComReg proposes to impose on all Proposed SMP FSPs an obligation to grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of actual or virtual network services. Having regard to the competition problems identified in Section 7, ComReg considers that this remedy is both justified and proportionate to ensure that, in the context of the provision of access to FVCT and associated facilities, interoperability of networks and services is ensured.
- 8.90 In so doing, ComReg considers that this remedy will contribute to the development of effective downstream competition to the ultimate benefit of consumers.

### **Requirements governing fairness, reasonableness and timeliness of access**

- 8.91 Pursuant to Regulation 12(3) of the Access Regulations, ComReg proposes to impose on all Proposed SMP FSPs an obligation that access to FVCT and associated facilities be provided in a fair, reasonable and timely manner.
- 8.92 In this regard, ComReg is also proposing to impose on all Proposed SMP FSPs a requirement that, where a request for access from an undertaking is refused or only partially met, the objective reasons for doing so be provided in detail to the undertaking which has made the request, and in a timely fashion, having regard to the nature of the request.
- 8.93 The proposed remedies above are intended to address competition problems associated with the potential, actual or constructive denial of access to FVCT, and to minimise the scope for discriminatory treatment of undertakings by ensuring consistency in the treatment of requests for access.
- 8.94 ComReg considers that this remedy will contribute to the development of effective downstream competition, to the ultimate benefit of consumers.

### **Overall preliminary conclusion on Proposed Access Remedies for the Relevant FVCT Markets**

- 8.95 Having regard to the analysis set out at paragraphs 8.61 to 8.94 above, ComReg therefore proposes to impose the following Access obligations on all Proposed SMP FSPs:
- (a) A requirement to provide access to FVCT and Associated Facilities;
  - (b) A requirement to negotiate in good faith;
  - (c) A requirement not to withdraw access to facilities already granted;

- (d) A requirement to grant open access to technical interfaces, protocols and other key technologies; and
  - (e) A requirement governing the fairness, reasonableness and timeliness of access.
- 8.96 ComReg further proposes to impose the following additional access obligations on Eircom alone on the Relevant FVCT Markets:
- (a) Requirements to provide access to Interconnection Services, and
  - (b) Requirements to conclude legally-binding and fit-for-purpose SLAs with respect to Interconnection Services.
- 8.97 ComReg's preliminary view is that obligations to provide access to FVCT and associated facilities are both proportionate and justified. ComReg has considered whether obligations other than those relating to access would, in themselves, resolve the competition problems identified. ComReg does not consider this to be the case. The imposition of the above access obligations alone would also not resolve issues such as excessive pricing, discrimination (on price or quality grounds) or ensure transparency of terms and conditions of access.

## **Proposed Price Control and Cost Accounting Remedies for the Relevant FVCT Markets**

### **Overview**

- 8.98 Regulation 13 of the Access Regulations provides that ComReg may impose on a Service Provider obligations relating to cost recovery and price controls. These include obligations for both cost orientation of prices and cost accounting systems, for the provision of specific types of access or interconnection in situations where a market analysis indicates that a lack of effective competition means that the operator concerned may sustain prices at an excessively high level or apply a price squeeze to the detriment of end users.<sup>593</sup>
- 8.99 In imposing any such obligations, ComReg is required to:
- (a) Take into account any investment made by the SMP Service Provider which ComReg considers relevant and allow that Service Provider a reasonable rate of return on adequate capital employed, taking into account any risks specific to a new investment network project,<sup>594</sup> and
  - (b) Ensure that any cost recovery mechanism or pricing methodology that ComReg imposes serves to promote efficiency and sustainable competition, and maximises consumer benefits.<sup>595</sup>

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<sup>593</sup> Pursuant to Regulation 13(1) of the Access Regulations.

<sup>594</sup> Pursuant to Regulation 13(2) of the Access Regulations.

<sup>595</sup> Pursuant to Regulation 13(3) of the Access Regulations.

8.100 Accordingly, the purpose of price control and cost accounting obligations is to ensure that prices charged are not excessive (or cause a margin squeeze) and promote efficiency and sustainable retail competition, while maximising consumer benefits.

8.101 The European Commission's 2009 Termination Rates Recommendation provides guidance to NRAs regarding the regulatory treatment of termination rates, and ComReg is required to take the utmost account of this when establishing price control remedies.

8.102 ComReg has noted in paragraphs 8.23 to 8.26 above existing Price Control and Cost Accounting obligations.

### **Price Control and Cost Accounting Remedies for the Relevant FVCT Markets**

8.103 In Sections 6 and 7, ComReg set out its preliminary view that the Proposed SMP FSPs have the ability and incentive to set prices for access to FVCT at an excessive or inefficient level, thereby impacting on downstream competition to the ultimate detriment of consumers. ComReg therefore considers that the imposition of obligations of price control on all Proposed SMP FSPs is justified and proportionate.

8.104 Below ComReg considers the following:

- (a) Proposed price control remedies (discussed in paragraphs 8.105 to 8.162 below) and;
- (b) Cost accounting remedies (discussed in paragraphs 8.163 to 8.170 below)

### **Price control remedies for the Relevant FVCT Markets**

8.105 Given the risk of price-related competition problems which ComReg has identified in Section 7 as deriving from the Proposed SMP FSPs' abilities and incentives to engage in price related behaviours (including excessive pricing), pursuant to Regulation 13 of the Access Regulations, ComReg proposes that each such FSP is subject to a price control obligation of cost orientation with respect to access to FVCT and associated facilities.

8.106 ComReg intends to carry out a separate, but near parallel, consultation on the detailed nature and implementation of the specific nature of the proposed price control obligation of cost orientation (the '**Separate Pricing Consultation**'). This is expected to issue shortly and will take utmost account of the 2009 Termination Rate Recommendation.

- 8.107 The 2007 FVCT Decision and the 2012 Pricing Decision imposed price controls of cost orientation on the 2007 SMP FSPs, and ComReg proposes to retain this approach to price control. ComReg considers that other price control methodologies are less appropriate.
- 8.108 **Retail minus** regulation sets a wholesale price by reference to an SMP FSP's retail price, minus an appropriate margin to enable the purchasing Service Provider to cover their retail costs and compete with the SMP Service Provider. ComReg does not consider that this approach would be appropriate in the context of FVCT, given the complex wholesale and retail pricing structure of the services offered by FSPs and the disconnect between retail prices and the likely costs of termination. ComReg also notes that, given that there are no retail charges for receiving calls, a retail minus approach for FVCT would also be impractical.
- 8.109 While ComReg has, in the past, applied a **benchmarking** approach (in its 2012 MTRs Decision), this approach has been found to be inconsistent with EU and Irish legislation. Following an appeal by Vodafone against the 2012 MTRs Decision, in its judgment delivered on 14 August 2013, the High Court found that the benchmarking approach adopted by ComReg in this instance (and recommended by the European Commission) for setting MTRs was outside the scope of what is provided for in the relevant EU and Irish legislation. Accordingly, ComReg proposes not to adopt a benchmarking approach with respect to FVCT.
- 8.110 ComReg has similarly declined to apply a **price cap** approach in the form of CPI-X (where CPI is the rate of inflation, measured by the Consumer Price Index). ComReg notes that price control by means of cost orientation is, itself, a form of price cap regulation, whereby the SMP entity is permitted to charge a price which is reflective of underlying costs. In contrast, CPI-X price cap regulation permits an SMP entity to charge a price which incentivises efficiency savings. However, it may be challenging for a regulator to determine what the appropriate predicted level of efficiency savings is likely to be over the course of the market review.
- 8.111 A consistent approach to price control in the form of cost orientation for SMP FSPs will ensure efficient price and investment signals are provided to market players and, in ComReg's view, does not represent an undue burden in light of the identified problem of excessive pricing and its detrimental impact on downstream competition and consumers.

- 8.112 ComReg also considers that imposing a price control obligation of cost orientation on all SMP FSPs provides regulatory certainty to each party, as well as to buyers of FVCT who purchase this service from several FSPs. In doing so, it will minimise the scope for disputes or investigations and potentially inefficient case-by-case regulation through dispute resolution or other activities. A consistent and harmonised approach will also promote the provision of pan-European services and minimise the regulatory burden on FSPs, many of which have operations in other European countries.
- 8.113 A cost orientation obligation, once specified in detail, will reduce the scope for inefficient financial transfers from smaller to larger FSPs and associated competitive distortions. It will further reduce the scope for undue on-net/off-net price discrimination arising from FTRs set above efficient costs, while at the same time continuing to allow retail pricing flexibility. However, as noted in Section 5 above, it is recognised that, while current retail pricing structures for fixed voice services do not widely feature such on-net/off-net price discrimination at present, according to the Modified Greenfield Approach, ComReg nonetheless recognises this as a potential risk, absent regulation.
- 8.114 Since the 2007 FVCT Decision, ComReg has observed persistent variations in the level of FTRs applied by the Newly Proposed SMP FSPs (noting that the 2007 SMP FSPs have been regulated to date). The analysis in section 6 and 7 above shows wide variations between the FTRs charged by each of these FSPs since the 2007 FVCT Decision. Newly Proposed SMP FSPs have charged higher FTRs than the 2007 SMP FSPs, with the difference increasing over time as regulated FTRs have reduced. ComReg also notes that the 2007 SMP FSPs' FTRs have, prior to each regulatory price control intervention by ComReg, consistently been higher than current regulated FTR levels.
- 8.115 Given the Proposed SMP FSPs' abilities and incentives to set FTRs above a competitive market outcome level and the scope for such pricing behaviour to impact on downstream competition and consumers, ComReg sees no objective reason to distinguish its approach in setting a price control among FSPs, particularly given that such a remedy is designed to address the same competition problem.

- 8.116 This preliminary view also takes into account the European Commission's comments on the 2007 FVCT Decision<sup>596</sup> where it noted ComReg's proposal not to impose price control obligations on the 2007 Alternative SMP FSPs. The European Commission was of the view that the mechanism proposed to impose price control obligations on other FSPs did not address the competition problem identified (i.e. risk of excessive pricing). Moreover, the European Commission commented that the remedy was based on a threshold which was not sufficiently justified. Taking into account its view that the 2007 Alternative SMP FSPs were able to charge FTRs above those of Eircom and that, in general, FTR levels in the State seemed high, the European Commission invited ComReg to impose appropriate price controls on the 2007 Alternative SMP FSPs. ComReg subsequently amended the 2007 Decision by means of the 2012 Pricing Decision to impose a cost orientation obligation on the 2007 Alternative SMP FSPs.
- 8.117 Furthermore, this preliminary view takes into account the European Commission's comments on the draft 2013 FVCT Decision where it noted ComReg's proposal to impose price control obligations on both Eircom and other regulated FSPs, and offered no further comments on ComReg's proposed measures.<sup>597</sup>
- 8.118 ComReg will, in the Separate Pricing Consultation, and in accordance with Regulation 13 of the Access Regulations, consider relevant investments made by SMP FSPs and allow such operators a reasonable rate of return on adequate capital employed, taking into account any risks involved specific to particular new investment network projects. The precise costing methodology to be employed will also seek to promote efficiency and sustainable competition and maximise consumer benefits.
- 8.119 ComReg would also note that, in accordance with Regulation 13(4) of the Access Regulations, in the presence of the proposed obligation of cost orientation, the burden of proof that charges (including FTRs) are derived from costs, including a reasonable rate of return on investment, will rest with the FSP concerned.

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<sup>596</sup> <https://www.comreg.ie/publication/interconnection-market-review-fixed-wholesale-call-termination-services/>

<sup>597</sup> Commission Decision concerning Case IE/2013/1469 — Call termination on individual public telephone networks provided at a fixed location in Ireland Article 7(3) of Directive 2002/21/EC: No comments. Available online at [https://circabc.europa.eu/sd/a/1e3cc814-0e02-46d4-b041-fc7f2aa2910f/IE-2013-1469%20Adopted\\_EN.pdf](https://circabc.europa.eu/sd/a/1e3cc814-0e02-46d4-b041-fc7f2aa2910f/IE-2013-1469%20Adopted_EN.pdf)

- 8.120 ComReg is required to take utmost account of the 2009 Termination Rates Recommendation. The 2009 Termination Rates Recommendation sets out that the evaluation of efficient costs in Relevant FVCT Markets should be based on a bottom-up ('**BU**') modelling approach using long-run incremental costs ('**LRIC**') as the relevant cost methodology. This approach is referred to as a pure LRIC approach in which the relevant increment is the WVCT service and which includes only avoidable costs, i.e. all fixed and variable costs which are incremental to the provision of WVCT.
- 8.121 ComReg also maintains its view in the 2011 Decision (as amended by the 2015 FACO and Transit Decision) that, absent regulation, Eircom would have the ability and incentive to price key inputs at successive levels of the value chain in such a way as to dissuade market participants from making efficient infrastructural investments in interconnection. This could be achieved, as set out at paragraph 7.58, through setting an insufficient space between the relative prices for FVCT when sold on a stand-alone basis to interconnected operators and FVCT when sold as part of (end-to-end) Wholesale SV Services to non-interconnected operators.
- 8.122 It is ComReg's preliminary view that a cost orientation cost recovery approach for FTRs (if ultimately adopted via the Separate Pricing Consultation and the follow-up decision), consistent with the 2009 Termination Rates Recommendation, could limit the scope for Eircom to apply an insufficient economic space between its pricing of FVCT sold as part of a Wholesale SV Service, and sold on a standalone basis.
- 8.123 The Margin Squeeze test adopted in the 2011 Decision (as amended by the 2015 FACO and Transit Decision) includes all costs incurred in the provision of Wholesale SV Services, including the costs of wholesale Call Origination and FVCT sold on a standalone basis, together with the other cost inputs of an interconnected FSP, such as interconnect links, to give a fair representation of the likely cost of the hypothetical Similarly Efficient Operator<sup>598</sup> wishing to compete against Eircom in the provision of Wholesale SV Services.

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<sup>598</sup> A Similarly Efficient Operator is an operator that shares the same costs as Eircom but does not have the same economies of scale and economies of scope as Eircom.

8.124 However, where the price of standalone FVCT is set at a pure LRIC level, the scope for Eircom to act in a discriminatory manner on FVCT by giving preferential FVCT rates to its Wholesale SV customers that are not available to interconnected FSPs appears somewhat moderated. Notwithstanding this, the ability and incentive for Eircom to squeeze interconnected FSPs on the other components of Wholesale SV remains (i.e. the Call Origination and other inputs involved in providing Wholesale SV), even in the presence of wholesale regulation in the FACO Market.

8.125 Having regard to the above, it is proposed that the non-price principles for the delivery of FVCT within Eircom's Wholesale SV Service would continue to be monitored through the transparency obligation proposed for Eircom in its Relevant FVCT Market.<sup>599</sup>

8.126 ComReg now considers alternative approaches to the application of price control remedies with respect to calls originating within the European Economic Area ('EEA') on the one hand, and non-EEA countries on the other. ComReg sets out the advantages and disadvantages of two potential courses of action in this respect. ComReg proposes to take either Candidate Approach 1 or Candidate Approach 2, as proposed below, for the reasons set out below. ComReg seeks the views of interested parties in determining which approach is likely to be better able to remedy the identified competition problem in a proportionate manner consistent with its statutory objectives (that Irish Service Providers are potentially constrained by means of SMP price control obligations from responding to very high termination rates levied by non-EEA Service Providers on Irish Service Providers, leading to a potential wealth transfer through the cross-subsidisation of those non-EEA Service Providers by Irish Service Providers and, ultimately, Irish retail subscribers).

#### **Price control remedies – EEA and non-EEA countries**

8.127 In its 2012 FVCT Consultation, ComReg specified that the relevant markets encompassed the provision of FVCT services to other undertakings, regardless of whether those undertakings were located in Ireland or abroad. In Section 5 of this Consultation, ComReg retains this approach to market definition. Amongst the reasons for so doing is that the service is, from a functional and technical perspective, the same irrespective of which undertaking it is provided to and regardless of their geographic location. Moreover, the same competitive problem arises in each instance, regardless of the location of the originated call – that, in the case of FVCT, FSPs holding SMP on their own network are incentivised to benefit from the competitive bottleneck on their network and levy above-cost termination rates.

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<sup>599</sup> As set out at paragraph 8.43 above.



- 8.128 However, research carried out by BEREC, as well as desk research carried out by ComReg, indicates that Service Providers in certain non-EEA countries (particularly in Eastern Europe and North Africa) appear to charge termination rates significantly in excess of the FTRs charged by SMP FSPs in EU Member States, including Ireland (i.e., Irish FSPs are subject to regulated FTRs, but they have to pay higher FTRs (which may not necessarily be justified by cost differences) to certain FSPs in certain non-EEA countries). This may, depending on factors such as relative traffic volumes, lead to wealth transfers from Irish SMP Service Providers to these non-EEA FSPs, as they pay more for terminating calls to subscribers of those non-EEA FSPs than they receive for terminating calls from non-EEA Service Providers' subscribers, due to constraints faced by SMP price control obligations of cost orientation.
- 8.129 While Irish Service Providers are limited to recovering those costs efficiently incurred in providing WVCT services, this is not necessarily the case in respect of non-EEA Service Providers, who may not face similar restrictions. EEA Service Providers who are designated with SMP are generally constrained by regulation to only recover efficiently-incurred costs of termination, such that they cannot charge higher termination rates in response to a high-price termination rate levied by a non-EEA Service Provider. Ultimately, even assuming symmetric traffic flows, this leads to net out-payments by Irish Service Providers. In this sense, Irish Service Providers and, by extension, their subscribers, may be cross-subsidising non-EEA Service Providers.
- 8.130 EU NRAs have taken different approaches to the treatment of this issue. While some NRAs continue to apply remedies to FVCT without regard to the origin of the call (as is the current practice in Ireland), an increasing number of other EU NRAs have altered their approaches to the regulation of FTRs to allow FSPs some latitude in FTRs charged for terminating calls originated in non-EEA countries.
- 8.131 The most common approach taken by EU NRAs is to apply different price control remedies to non-EEA originated calls, permitting SMP FSPs to set their own FTRs for terminating incoming non-EEA originated calls, either at any price level, or up to the price level of the termination rate set by the originating non-EEA Service Provider (i.e. a reciprocal termination rate price ceiling). Separately, in Germany, a different approach is taken, whereby SMP MSPs are not entitled to apply different price control remedies, but may refuse MVCT to those non-EEA countries that discriminate between national and international calls by setting different termination rates.
- 8.132 As set out in Table 39 below, more than half of EEA NRAs have differing approaches to the termination of calls originated within and outside the EEA:

**Table 39: EEA NRA approaches to calls originated outside the EEA<sup>600</sup>**

Country	MTR Price Control Applies to	Date of most recent MVCT Market Analysis	FTR Price Control Applies to	Date of most recent FVCT Market Analysis
<b>Austria</b>	EEA only	12/2015	EEA only	12/2015
<b>Belgium</b>	EEA only	05/2017	EEA only, bilateral negotiation for non-EEA	Annulled 03/2017
<b>Denmark</b>	EEA only, commercial negotiation for non-EEA	10/2016	All	06/2017
<b>Finland</b>	All	08/2015	All	01/2008
<b>France</b>	EEA only	12/2014	EEA only, common surcharge for non-EEA	12/2014
<b>Germany</b>	All, but with Access discretion	07/2016	All, but with Access discretion	12/2016
<b>Greece</b>	EEA only, no price controls for non-EEA	Underway	EEA only	04/2014
<b>Italy</b>	EEA only	09/2015	EEA only	09/2016
<b>Ireland</b>	All	11/2012	All	12/2007
<b>Luxembourg</b>	All	01/2014	All	11/2016
<b>Netherlands</b>	EEA only, reciprocal pricing for non-EEA	06/2017	EEA only	06/2017
<b>Norway</b>	EEA only	01/2015	EEA only	01/2016
<b>Portugal</b>	EEA only	08/2015	EEA only	12/2016
<b>Spain</b>	All	05/2012	All	09/2016
<b>Sweden</b>	All	09/2016	All	02/2017
<b>UK</b>	All	Underway	All	09/2013
<b>Cyprus</b>	All	09/2015	All	09/2015

<sup>600</sup> The data in Table 39 are sourced from the European Commission website, relevant NRA websites, and Market Analysis database held by Cullen International, a provider of regulatory intelligence across various utility industries (<http://www.cullen-international.com/product/applications/MarketAnalysis/intro.htm>)

<b>Malta</b>	All	03/2014	All	12/2015
<b>Slovakia</b>	EEA only, no price control for non-EEA	Underway	EEA only, no price control for non-EEA	Underway
<b>Czech Rep.</b>	EEA only, no price control for non-EEA	12/2016	EEA only, no price control for non-EEA	12/2016
<b>Slovenia</b>	EEA only, no price control or non-discrimination remedy for non-EEA	04/2016	EEA only, no price control or non-discrimination remedy for non-EEA	04/2016
<b>Poland</b>	All	12/2012	All	Underway
<b>Hungary</b>	EEA only, no price control for non-EEA	03/2015	EEA only, no price control for non-EEA	11/2013
<b>Romania</b>	All	01/2012	All	01/2012
<b>Bulgaria</b>	EEA only, no price control for non-EEA	11/2016	EEA only, no price control for non-EEA	10/2016
<b>Croatia</b>	EEA only, commercial negotiation for non-EEA	03/2015	EEA only, commercial negotiation for non-EEA	03/2015
<b>Latvia</b>	EEA only, no price control for non-EEA	03/2015	EEA only, no price control for non-EEA	03/2016
<b>Lithuania</b>	EEA only, no price control or non-discrimination remedy for non-EEA	12/2015	EEA only, no price control or non-discrimination remedy for non-EEA	11/2015
<b>Estonia</b>	EEA only, no price control for non-EEA	05/2016	EEA only, no price control for non-EEA	12/2014

8.133 ComReg notes that two approaches to the issue of asymmetries in EEA and non-EEA termination rates are possible, and sets out below some of the potential advantages and disadvantages of each approach.

8.134 It should be noted that, regardless of which approach is adopted by ComReg in the decision to be made on foot of this Consultation, international traffic account for a limited proportion of all calls terminated or originated on Irish Service Providers. Data from ComReg's Quarterly Key Data Report for Q2 2017 indicate that 22% of all fixed calls originated in Ireland are terminated abroad,<sup>601</sup> while 8.7% of mobile voice minutes originated in Ireland were classified as international and roaming minutes.<sup>602</sup> Given that these data sets do not distinguish between calls to EEA and non-EEA countries, it follows that the volume of calls to non-EEA countries is likely to be lower again.

8.135 Moreover, the relative traffic flows between EEA and non-EEA countries and the associated termination rates are unclear, given the current availability of information. ComReg would, therefore, welcome additional country-specific data on traffic volumes and on termination rates in order to inform its consideration of these matters.

8.136 Similarly, incomplete data from the Service Providers' responses to the SIRs issued by ComReg in 2016<sup>603</sup> indicate that calls originated abroad account for a small proportion of overall call termination volumes in Ireland. In the case of MVCT, 2% of all call minutes terminated in the case of [REDACTED] and 7% in the case of [REDACTED] originated internationally. In respect of FVCT, the data are as follows:

**Table 40: % of international origin call minutes terminated on select FSPs, H2 2016**  
[REDACTED]

FSP	%	FSP	%
Colt	[REDACTED]%	Eir	[REDACTED]%
Viatel	[REDACTED]%	Verizon	[REDACTED]%
BT	[REDACTED]%	Virgin	[REDACTED]%
Blueface	[REDACTED]%	Magnet	[REDACTED]%
Equant	[REDACTED]%		

<sup>601</sup> ComReg Quarterly Key Data Report – Q2 2017 (ComReg Document 17/75), at p.22.

<sup>602</sup> Ibid, p.61.

<sup>603</sup> For the avoidance of doubt, the relevant data are incomplete not because Service Providers have failed to comply with the SIRs, but because many Service Providers interconnect international traffic by means of transit arrangements, and therefore do not have data on the ultimate origin/destination of call traffic.

8.137 Again, in each case, the data do not distinguish between calls originated within and outside the EEA, such that the volumes for non-EEA originated calls are likely to be lower again.

8.138 Below ComReg outlines two alternate proposed regulatory approaches to the application of termination rate regulation to EEA and non-EEA originated calls.

**Candidate Approach 1: Retain the status quo ante**

8.139 Under this approach, ComReg retains its existing methodology, whereby all remedies which it proposes to impose on Proposed SMP Service Providers apply to all calls which that Service Provider terminates, without distinction as to the call's origin.

**Advantages of retaining the status quo ante**

8.140 The primary benefit of this approach is that it ensures regulatory certainty for Irish Service Providers and purchasers of termination services, as it largely amounts to a 'no change' scenario. This means that Irish Service Providers may not face the risks associated with potentially uncertain termination rate outcomes, or the costs associated with potentially upgrading their traffic identification and billing systems to identify call origin at the national or, indeed, the Service Provider, level.

8.141 Retaining the status quo avoids the risk that permitting freedom to set termination rates for non-EEA originated calls could lead to retaliatory increases by non-EEA Service Providers in respect of termination rates charged on non-EEA routes where termination rates are currently low (approximate cost). This could lead to negative consequences for Irish end-users if these retaliatory termination rate increases were passed through to the retail level. Whether or not there may be any such retaliatory increases may also depend on the extent to which non-EEA Service Providers differentiate their termination rates on an EEA country-by-country (or indeed Service Provider basis), and on the scale of the 'market' for international calls to Ireland, relative to the overall international outbound calls market.

8.142 ComReg notes that an approach whereby NRAs allow differential termination rates for non-EEA traffic (or indeed other non-EEA countries which implement similar approaches) could, depending on the particular circumstances of each case, be of relevance to international trade agreements.<sup>604</sup>

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<sup>604</sup> As noted by BEREC in BEREC document BoR (15) 78.

- 8.143 Retaining the status quo may also avoid the risk that higher inbound termination rates could lead to higher retail rates charged<sup>605</sup> for calls made to Ireland from overseas. Although these costs are not borne by Irish end-users, an increase may still have negative consequences for their welfare<sup>606</sup> – for instance, by reducing the volume of calls they receive from friends, family and business contacts overseas (to the extent they place a valuation on such calls), and/or by substitution of inbound calls by outbound calls for which Irish end-users pay.
- 8.144 Finally, retaining the status quo may avoid creating an arbitrage opportunity between EEA and non-EEA Service Providers to disguise the origin of traffic in order to avail of lower EEA termination rates. This may lead to economically inefficient investment<sup>607</sup> in bypass facilities, to the possibility of disputes about traffic origin, and to a continuation of the wealth transfers that changing the status quo would attempt to address. However, it should be noted that, again, this may depend on relative traffic volumes.

**Disadvantages of retaining the status quo ante**

- 8.145 The key disadvantage of this approach is that it prevents Irish Service Providers from responding to the levying by non-EEA Service Providers of high termination rates. Irish Service Providers must therefore continue to either absorb the costs of doing so, or pass these costs onto their retail subscribers. Ultimately, Irish subscribers may continue to cross-subsidise non-EEA Service Providers. To the extent that they continue to cross-subsidise non-EEA operators, and the higher termination costs feed into higher outbound international call prices, Irish subscribers will continue to be dis-incentivised from calling subscribers of those non-EEA networks, potentially leading to a reduction in the utility of both Irish and non-EEA subscribers, due to the impact on call externalities.<sup>608</sup>

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<sup>605</sup> As noted in Section 4, the 2016 Market Research also suggests that called parties tend to have a low sensitivity to the cost of the calls faced by calling parties, although this did not distinguish the origin of the called party.

<sup>606</sup> The magnitude of this effect on Irish end-users depends on factors including consumers' inbound international call volumes (relative to overall inbound and outbound calls of all types) and Irish end users' valuation of the benefit of receiving such inbound international calls.

<sup>607</sup> Where such investment in bypass facilities has already been made, the level of incremental investment may be low relative to a greenfield investment.

<sup>608</sup> Call externalities arise due to the fact that the recipient of a phone call may derive utility from the receipt of a phone call, assuming that the externality is positive. Economic theory indicates that the presence of (positive) call externalities suggests that the price of phone calls should be reduced.

8.146 Retaining the status quo ante sets Ireland at odds with the emerging regulatory approach across the EU (although it should be noted that, in its recent MVCT consultation, Ofcom proposed to retain the status quo ante in the UK, whereby no distinction is made by reference to call origin).<sup>609</sup>

**Candidate Approach 2: Allow differentiated approaches to calls originated within and outside the EEA**

8.147 Under this approach, ComReg would stipulate that the price control obligation of cost orientation which it proposes to impose on Service Providers designated with SMP would apply only to the termination of calls which originated in the EEA. Where a call originated outside the EEA, an SMP Service Provider would not be obliged to charge the regulated termination rate, and would be free to commercially negotiate a termination rate, or indeed to unilaterally set a termination rate, for such calls. For the avoidance of doubt, none of the other proposed remedies would distinguish between calls originated in the EEA and elsewhere. Moreover, pursuant to the proposed Transparency remedy, an SMP Service Provider would be obliged to publish the different termination rates it charges for terminating calls originating outside the EEA.

8.148 ComReg considers it necessary to clarify the position with respect to the potential application of Candidate Approach 2 to mobile roaming calls, in particular, calls of subscribers of EEA MSPs while roaming in non-EEA countries ('**EEA Roaming Calls**'). For the avoidance of doubt, EEA Roaming Calls would, for the purposes of Candidate Approach 2, be considered to be calls originating within the EEA. Therefore, Proposed SMP FSPs would be required to charge cost oriented FTRs when supplying FVCT to EEA MSPs with respect to such EEA Roaming Calls.

8.149 Conversely, calls of subscribers of non-EEA MSPs while roaming in EEA countries would, for the purposes of Candidate Approach 2, be considered to be calls originating outside the EEA. Therefore, Proposed SMP FSPs would not be required to charge cost oriented FTRs when supplying FVCT to non-EEA MSPs with respect to such calls.

8.150 It is important to note that, in comparison with Candidate Approach 1, the assessment of the advantages and disadvantages of adopting Candidate Approach 2 are uncertain, given that they are forward-looking.

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<sup>609</sup> Ofcom, 2017. "Mobile call termination market review 2018-21", at p.46. Available online at <https://www.ofcom.org.uk/consultations-and-statements/category-1/mobile-call-termination-market-review>

**Benefits of allowing a differentiated approach**

- 8.151 The principal possible advantage of Candidate Approach 2 is that Irish Service Providers will be enabled to respond to non-EEA Service Providers who levy high termination rates. This means that Irish Service Providers – and, by extension, Irish retail consumers – would (under the assumption of symmetrical traffic flows, or asymmetric traffic flows, where the Irish Service Provider terminates more minutes on its network than it originates to non-EEA countries) no longer be cross-subsidising non-EEA Service Providers, or (under the assumption of asymmetric traffic flows, where the Irish Service Provider terminates fewer minutes than it originates), be cross-subsidising at a lower level, as the Irish Service Provider would be able to compensate for its high outgoing termination payments indirectly by charging the non-EEA Service Provider, rather than from its own subscribers (where such costs are passed on), or by absorbing the costs, thereby diverting funds from alternatives such as network and infrastructure investment.
- 8.152 This would mean that high-termination rate non-EEA Service Providers would bear payments approximating the payments (having regard to relative traffic flows) they levy on Irish Service Providers, rather than having Irish Service Providers – and, by extension, Irish subscribers – cross-subsidising them. While Irish Service Providers – and, by extension, Irish subscribers – would continue to cross-subsidise them, this may, having regard to relative traffic flows, be balanced by a cross-subsidy flowing in the opposite direction.
- 8.153 While the level of benefit which accrues to Irish retail subscribers is likely to depend on, firstly, the proportion of a Service Provider's termination out-payments accounted for by calls terminated on non-EEA Service Providers and, secondly, the level of retail competition which the Irish Service Provider faces, the ability of Irish Service Providers to charge non-EEA Service Providers termination rates which are reflective of the termination rates they face from those Service Providers provides an alternative course of action for Irish Service Providers to recovering the value of these out-payments from their own subscribers, or diverting funds to absorb these costs.
- 8.154 From a consumer perspective, allowing a differential approach to price regulation could, depending on relative call volumes, lead to reduced costs to Irish consumers (assuming any wholesale reductions are passed through to retail prices). In the best case scenario, this could:
- (a) Incentivise non-EEA Service Providers to reduce their termination rates from their previously high level, reducing the costs borne by the Irish FSP, and/or



- (b) Allow the Irish FSP to pass cost reductions onto Irish subscribers. This may, relative to the current position, incentivise Irish subscribers to make more calls to subscribers in the relevant non-EEA country than would otherwise be the case.

8.155 However, non-EEA Service Providers may be incentivised to negotiate a mutual reduction in termination rates only if they had a net outflow of traffic to Ireland. It is typical, however, for more developed countries to originate more traffic than they terminate, and it appears that high termination rate countries tend, generally, to be at a lower level of economic development than Ireland. The eventual impact on termination rates may depend on relative traffic flows and other factors.

8.156 Lastly, Candidate Approach 2 has been adopted by the majority of EU NRAs. Were Ireland also to do so, it would be ensuring consistency with contemporary regulatory practice across the EU.

**Disadvantages of allowing a differentiated approach**

8.157 The principal possible disadvantage of Candidate Approach 2 is the possibility that it may lead to an increase in the termination rates charged by both Irish Service Providers and non-EEA Service Providers, ultimately leading to higher, rather than lower retail charges for Irish subscribers (depending on the intensity of competition in the affected retail markets). This possibility could arise where an Irish Service Provider increases the termination rates it charges to a high-termination rate charging non-EEA Service Provider, leading to a retaliatory response from that Service Provider and so on, resulting in a 'race to the top'. In this respect, the approach could have the effect of moving from an asymmetric low-high termination rate position, to a symmetric high-high termination rate position. If these higher termination rates do not cancel each other out (for instance, because of asymmetric traffic flows), there is a risk that retail prices could increase, as Service Providers pass the increased costs of termination onto their own subscribers (depending on the intensity of competition in the affected retail markets).

8.158 Other possible disadvantages include:

- (a) Incentivising non-EEA Service Providers to avoid higher termination rates being applied to non-EEA Service Providers by transiting traffic through an EEA operator and disguising the call origin, and the costs and difficulties of detecting and monitoring such activity;
- (b) Incentivising non-EEA Service Providers to avoid the higher termination rates being applied to non-EEA Service Providers by facilitating OTT bypass;<sup>610</sup>

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<sup>610</sup> As described in detail at paragraphs 5.225 to 5.230 above.

- (c) Difficulties encountered by Irish Service Providers in ensuring their compliance with SMP price control obligations where a non-EEA MSP subscriber is roaming in Ireland, or where an Irish MSP subscriber is roaming outside the EEA, in circumstances where it is difficult to determine with certainty whether a call is a roaming call, or is a call originated on the subscriber's home network;
- (d) Risk that Irish Service Providers could increase the termination rates they charge to all non-EEA Service Providers, i.e. both non-EEA Service Providers which themselves charge very high termination rates *and* non-EEA Service Providers which charge termination rates which are broadly equivalent to, or indeed lower than, the termination rates charged by Irish Service Providers (and which are therefore do not give rise to cross-subsidisation concerns); and
- (e) Subscribers on non-EEA networks may make fewer calls to Irish subscribers than would previously have been the case, if the non-EEA Service Provider passes the higher costs of terminating calls on Irish networks to its own subscribers.

8.159 ComReg seeks the views of Respondents' on the two proposed approaches above.

**Application of FTR Price Control with respect to EEA mobile subscribers while Roaming in non-EEA countries**

8.160 Having regard to the above, ComReg considers it necessary to clarify the position with respect to the application of the proposed FTRs price control obligation to mobile roaming calls, in particular, calls of subscribers of EEA MSPs while roaming in non-EEA countries ('**EEA Roaming Calls**').

8.161 For the avoidance of doubt, EEA Roaming Calls are, for the purposes of the FTR price control obligations, considered to be calls originating within the EEA. Therefore, Proposed SMP FSPs would be required to charge cost oriented FTRs when supplying FVCT to EEA MSPs with respect to such EEA Roaming Calls.

8.162 Conversely, calls of subscribers of non-EEA MSPs while roaming in EEA countries are, for the purposes of the FTR price control obligations, considered to be calls originating outside the EEA. Therefore, Proposed SMP FSPs would not be required to charge cost oriented FTRs when supplying FVCT to non-EEA MSPs with respect to such calls.

### **Proposed Cost Accounting Remedies for the Relevant FVCT Markets**

- 8.163 If specific price control obligations are to be meaningful, it is generally necessary to have a clear and comprehensive understanding of the costs associated with the provision of FVCT by an SMP FSP. Obligations to maintain appropriate cost accounting systems generally support obligations of price control, and can also assist ComReg in monitoring the obligation of non-discrimination.
- 8.164 Allocating costs to the appropriate and relevant products and services of an operator is an important factor to consider when regulating multiple products and services carried over the same network. This is particularly true for Eircom, which is subject to regulation in respect of a number of markets on which it is active. Eircom also has an obligation to provide separated accounts and maintain cost accounting systems that are sufficiently detailed to allow an assessment of cost allocations. ComReg's 2010 Accounting Separation Decision sets out detailed requirements in this regard.<sup>611</sup>
- 8.165 Having regard to Eircom's integrated position across several upstream and downstream markets (and noting its SMP designations in a number of these markets), the scope for Eircom to leverage its position and the associated need to ensure sufficient visibility of how costs are allocated across FVCT and other horizontally and vertically-related input services, ComReg proposes to continue to apply an obligation of cost accounting on Eircom.
- 8.166 In respect of the Alternative Proposed SMP FSPs, ComReg notes that each such FSP would only be subject to regulation in one fixed wholesale market (as distinct from Eircom which is presently designated with SMP in other regulated wholesale markets).<sup>612</sup> This raises proportionality considerations with respect to such alternative FSPs. The relevant network information may not be available from these other Alternative Proposed SMP FSPs and it may be disproportionate for ComReg to require cost models from them, given the scale of their operations and the likely burden involved.
- 8.167 Regulation 13(5) of the Access Regulations requires that, where implementation of a cost accounting system is imposed, ComReg must ensure that a description of the cost accounting system is made publicly available showing at least the main categories under which costs are grouped and the rules used for the allocation of costs.

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<sup>611</sup> Accounting separation and cost accounting review of Eircom, August 2010, [ComReg Document 10/68](#), Decision D08/10 ('**2010 Accounting Separation Decision**')

<sup>612</sup> It should be noted that market review Consultations or Decisions are due to issue in 2017 and 2018 in respect of a number of regulated markets on which Eircom is active (for example, Markets 3a, 3b and 4 of the 2014 Recommendation).

- 8.168 Given the specific circumstances of the Alternative Proposed SMP FSPs, in particular, the proposal that such SMP FSPs would be regulated in only one fixed input market, ComReg does not consider it proportionate or necessary, at this point, to impose an obligation to maintain cost accounting systems on any Alternative Proposed SMP FSPs. However, it may be necessary for ComReg to require such detailed information from all FSPs who provide FVCT for cost modelling purposes.
- 8.169 Therefore, ComReg proposes to refrain from imposing cost accounting obligations on Alternative Proposed SMP FSPs. ComReg proposes, however, to keep this under review and may revisit this issue if any data gathering exercise required to arrive at a cost oriented FTR shows that accounting separation and/or cost accounting obligations might be appropriate.
- 8.170 For the purpose of calculating the cost of efficient provision of FVCT and associated facilities, in accordance with Regulation 13(4) of the Access Regulations, ComReg may use cost accounting methods other than those used by FSPs. ComReg may also issue directions requiring an operator to provide full justification for its prices and may, where appropriate, require prices to be adjusted. ComReg does not therefore consider it to be proportionate or necessary, at this point, to impose an obligation to maintain appropriate cost accounting systems on any Alternative Proposed SMP FSPs

### **Overall preliminary conclusion on Proposed Price Control and Cost Accounting Remedies for the Relevant FVCT Markets**

- 8.171 Having regard to the analysis set out at paragraphs 8.98 to 8.170 above, ComReg proposes to impose the following Price Control and Cost Accounting obligations on all Proposed SMP FSPs:
- (a) A price control obligation of cost orientation, the detailed specification of which will be determined through the Separate Pricing Consultation.
- 8.172 ComReg further proposes to impose Cost Accounting obligations on Eircom alone, namely that Eircom will be subject to the cost accounting obligations set out in the 2010 Accounting Separation Decision (as may be amended from time to time).
- 8.173 Having considered the matter, ComReg holds the view that price control obligations alone would be insufficient to address the competition problems identified in Section 7. For example, discriminatory behaviour (on price or non-price grounds) or denial of access would not be adequately addressed by means of such obligations alone.

## **Proposed Accounting Separation Remedies for the Relevant FVCT Markets**

### **Overview**

8.174 In accordance with Regulation 11 of the Access Regulations, ComReg can require an operator which is vertically-integrated to make transparent its wholesale prices and its internal transfer prices, to ensure compliance with any non-discrimination obligation imposed or, where necessary, to prevent unfair cross-subsidisation.

8.175 An accounting separation obligation can also reinforce cost accounting and transparency obligations as it can help to ensure that costs are neither over- nor under-recovered and help disclose possible competition problems by making visible the wholesale prices and internal transfer prices of an SMP Service Provider's services.

8.176 ComReg sets out at paragraph 8.27 existing FVCT accounting separation obligations.

### **Accounting Separation Remedies for the Proposed Relevant FVCT Markets**

8.177 Eircom is currently the only FSP which, pursuant to the 2007 FVCT Decision, is subject to an accounting separation remedy. The 2007 FVCT Decision did not specify in detail the reasons for imposing an accounting separation remedy on Eircom alone. However, in its 2012 FVCT Consultation, ComReg recommended that an accounting separation remedy with respect to Eircom alone be retained. The justification for so doing was that Eircom was the only FSP which was designated with SMP across a number of markets, with particular leveraging risks being identified in respect of the upstream FACO and Transit markets, and the downstream Wholesale SV and Retail Call market.

8.178 ComReg notes that market dynamics have shifted since 2012. While Eircom continues to be designated with SMP on the CO market, it is not designated with SMP in respect of the provision of Wholesale SV, Transit or Retail Calls. ComReg is therefore of the view that Eircom faces competitive constraints in the provision of each of these products and services, such that regulation is not warranted. For example, at the retail level, ComReg's QKDRs indicate that Eircom's share of fixed voice subscriptions (taken as a proxy for retail calls) has fallen from 75% in Q1 2010, to 55% in Q1 2013, to 39% in Q1 2017.

- 8.179 The capacity of customers and competitors to discipline the conduct of Eircom on related upstream and downstream markets, albeit in the presence of regulation in markets other than the Relevant FVCT Markets, suggests that Eircom is unlikely to have the same ability to leverage its SMP from FVCT to these markets as it may have done in the past. While Eircom continues to be designated with SMP on the FACO market, ComReg notes that Eircom is subject to an accounting separation remedy on that market. For this reason, ComReg is of the preliminary view that the rationale for imposing an accounting separation remedy on Eircom in its Relevant FVCT Market is no longer valid.
- 8.180 ComReg further notes that the main objective of accounting separation is to make practical the implementation of non-discrimination and cost orientation remedies by showing cross-subsidisation between products. However, ComReg's preliminary view is that an accounting separation remedy is unnecessary for ComReg to implement a cost orientation price control remedy, in circumstances where it involves a remedy based on a Pure LRIC methodology (to be determined in the Separate Pricing Consultation). ComReg is therefore of the preliminary view that an accounting separation remedy may not be necessary for the successful implementation of a price control remedy on Eircom.
- 8.181 Subject to the implementation of an appropriate price control obligation (considered in the Separate Pricing Consultation), ComReg does not consider it appropriate or proportionate at this point to impose an obligation on any FSP which it proposes to designate with SMP to maintain separate accounts. Having regard to the competition problems identified in Section 7 and the particular circumstances of the Relevant FVCT Markets, it is ComReg's view that the imposition of an accounting separation obligation at this stage may be excessively burdensome and costly for FSPs to comply with and may therefore represent a disproportionate approach to resolving issues such as excessive pricing (and Eircom impacts on downstream markets), particularly in light of the other proposed obligations identified above.
- 8.182 An appropriately specified cost orientation obligation that takes utmost account of the 2009 Termination Rate Recommendation, coupled with non-discrimination obligations, should seek to prevent restrictions or distortions in competition in downstream markets arising from the impact of excessively priced FTRs on off-net retail prices for calling fixed subscribers (and price discrimination with respect to on-net FTRs).

### **Overall preliminary conclusion on Accounting Separation Remedies for the Relevant FVCT Markets**

8.183 Having regard to the analysis set out above, ComReg does not, at this time, intend to impose an accounting separation obligation on any FSP which it proposes to designate with SMP. However, the matter will be kept under review having regard to the specification and implementation of the detailed price control, which will be pursued through the Separate Pricing Consultation, and the possibility of any other consideration of cost accounting obligations which ComReg may or may not carry out.

## **Overall Preliminary Conclusions on Remedies in the Relevant FVCT Markets**

8.184 Having regard to the competition problems identified in Section 7 and the discussion in paragraphs 8.28 to 8.183 above, ComReg proposes to impose a range of access, non-discrimination, transparency and price control remedies on all Proposed SMP FSPs.

### **Proposed Transparency Remedies for the Relevant FVCT Markets**

8.185 Having regard to the analysis set out at paragraphs 8.29 to 8.44 above, apart from a general transparency obligation, ComReg proposes that all Proposed SMP FSPs are subject to the requirements set out in paragraphs 8.36(a) to (g), with Eircom also being subject to the additional obligation set out in paragraph 8.43(a) above.

### **Proposed Non-Discrimination Remedies for the Relevant FVCT Markets**

8.186 Having regard to the analysis set out at paragraphs 8.48 to 8.57 above, ComReg proposes to impose the following non-discrimination obligations on Proposed SMP FSPs:

- (a) Requirement to apply equivalent conditions, including in respect of FTRs or other charges, in equivalent circumstances to other undertakings requesting or being provided with access (including access to FVCT and associated facilities) or requesting or being provided with information in relation to such access; and
- (b) Requirement to ensure that access (including access to FVCT and associated facilities) and information in relation to such access are provided to all other undertakings under the same conditions and of the same quality as the FSP designated with SMP provides to itself or to its subsidiaries, affiliates or partners.

8.187 ComReg has also considered whether non-discrimination obligations alone would be sufficient to address the competition problems identified in Section 7 and does not consider this to be the case. For example, excessive pricing, constructive denial of access problems or poor service quality issues could still occur in the presence of a non-discrimination obligation.

8.188 ComReg considers that the imposition of the above non-discrimination obligations is both proportionate and justified, having regard to the competition problems identified in Section 7. ComReg therefore proposes that all Proposed SMP FSPs should have non-discrimination obligations imposed upon them. Furthermore, it is ComReg's preliminary view that it is not objectively justified to adopt an alternate approach for the Newly Proposed FSPs that ComReg is proposing to designate with SMP for the first time.

### **Proposed Access Remedies for the Relevant FVCT Markets**

8.189 Having regard to the analysis set out at paragraphs 8.61 to 8.94 above, ComReg proposes to impose the following Access obligations on all Proposed SMP FSPs:

- (a) A requirement to provide access to FVCT and Associated Facilities;
- (b) A requirement to negotiate in good faith;
- (c) A requirement not to withdraw access to facilities already granted;
- (d) A requirement to grant open access to technical interfaces, protocols and other key technologies; and
- (e) A requirement governing the fairness, reasonableness and timeliness of access.

8.190 ComReg further proposes to impose the following additional access obligations on Eircom alone on the Relevant FVCT Markets:

- (a) Requirements to provide access to Interconnection Services and associated requirements to conclude legally-binding and fit-for-purpose SLAs.

8.191 ComReg's preliminary view is that obligations to provide access to FVCT and associated facilities are both proportionate and justified. ComReg has considered whether obligations other than those relating to access would, in themselves, resolve the competition problems identified. ComReg does not consider this to be the case. The imposition of the above access obligations alone would also not resolve issues such as excessive pricing, discrimination (on price or quality grounds), or ensure transparency of terms and conditions of access.



## Proposed Price Control and Cost Accounting Remedies for the Relevant FVCT Markets

- 8.192 The 2007 FVCT Decision (as amended by the 2011 Decision and the 2012 Pricing Decision) imposed price controls of cost orientation on the 2007 SMP FSPs, and ComReg proposes to retain this approach to price control. ComReg considers that other price control methodologies are less appropriate.
- 8.193 **Retail minus** regulation sets a wholesale price by reference to an SMP FSP's retail price, minus an appropriate margin to enable the purchasing Service Provider to cover their retail costs and compete with the SMP Service Provider. ComReg does not consider that this approach would be appropriate in the context of FVCT, given the complex wholesale and retail pricing structure of the services offered by FSPs and the disconnect between retail prices and the likely costs of termination (as evidenced by existing regulated FTRs and as set out in paragraph 4.12 above, FVCT typically accounts for a small proportion (<10%) of the retail cost of a call). A retail minus approach also assumes that a strong competitive retail market where any excessive profit earned by Proposed SMP FSPs from FTRs is competed away. If excessive FTR profits are not competed away at the retail level, the excessive margins at the wholesale level may be reflected in higher retail prices.
- 8.194 While ComReg has, in the past, applied a **benchmarking** approach (in its 2012 MTRs Decision), this approach has been found to be inconsistent with EU and Irish legislation. Following an appeal by Vodafone against the 2012 MTRs Decision, in its judgment delivered on 14 August 2013, the High Court found that the benchmarking approach adopted by ComReg in this instance (and recommended by the European Commission) for setting MTRs was outside the scope of what is provided for in the relevant EU and Irish legislation. Accordingly, ComReg proposes not to adopt a benchmarking approach with respect to FVCT and MVCT.
- 8.195 ComReg has similarly declined to apply a **price cap** approach in the form of CPI-X (where CPI is the rate of inflation, measured by the Consumer Price Index). ComReg notes that price control by means of cost orientation is, itself, a form of price cap regulation, whereby the SMP entity is permitted to charge a price which is reflective of underlying costs. In contrast, CPI-X price cap regulation permits an SMP entity to charge a price which incentivises efficiency savings. However, it may be challenging for a regulator to determine what the appropriate predicted level of efficiency savings is likely to be over the course of the market review.

- 8.196 ComReg is of the preliminary view that each of the Proposed SMP FSPs have the ability and incentive to engage in excessive pricing. In view of this, a combination of transparency, non-discrimination and access obligations is considered insufficient and a cost orientation obligation is considered necessary to address the scope for excessive pricing in the Relevant MVCT Markets.
- 8.197 Given the risk of price-related competition problems which ComReg has identified in Section 7 as deriving from FSPs' abilities and incentives to engage in excessive or inefficient pricing of FVCT, ComReg proposes that each Proposed SMP FSP be subject to a cost orientation obligation with respect to access to FVCT and associated facilities, the detailed specification of which will be determined through the Separate Pricing Consultation.
- 8.198 Such obligations may include cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of access or interconnection in situations where a market analysis indicates that a lack of effective competition means that the operator concerned may sustain prices at an excessively high level or may apply a price squeeze to the detriment of end users.<sup>613</sup>
- 8.199 Having regard to the analysis set out at paragraphs 8.192 to 8.198 above, ComReg proposes to impose the following Price Control and Cost Accounting obligations on all Proposed SMP FSPs:
- (a) A price control obligation of cost orientation, the detailed specification of which will be determined through the Separate Pricing Consultation.
- 8.200 ComReg further proposes to impose Cost Accounting obligations on Eircom alone, namely that Eircom will be subject to the cost accounting obligations set out in the 2010 Accounting Separation Decision.
- 8.201 Having considered the matter, ComReg holds the view that price control obligations alone would be insufficient to address the competition problems identified in Section 7. For example, discriminatory behaviour (on price or non-price grounds) or denial of access would not be adequately addressed by means of such obligations alone.

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<sup>613</sup> Pursuant to Regulation 13(1) of the Access Regulations.

## Proposed Accounting Separation Remedies for the Relevant FVCT Markets

- 8.202 Having regard to the analysis set out above, ComReg does not, at this time, intend to impose an accounting separation obligation on any FSP. However, the matter will be kept under review, having regard to the specification and implementation of the detailed price control, which will be pursued through the Separate Pricing Consultation, and the possibility of further consideration of any cost accounting obligations.
- 8.203 ComReg has set out these remedies in the form of a Draft Decision Instrument ('DI') which is attached at Appendix 5 and respondents are invited to comment on this draft DI as well, including whether the wording of the DI accurately gives effect to the proposed obligations outlined above.

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| <p><b>Q. 10.</b> Do you agree with ComReg's approach to imposing remedies in each of the Relevant FVCT Markets? Are there other approaches that would better address the identified competition problems? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.</p> <p><b>Q. 11.</b> Do you agree with ComReg's draft FVCT Decision Instrument set out in Appendix 5? Do you agree with ComReg's definitions and interpretations as set out in this draft Decision Instrument? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer.</p> |
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## Remedies for the Relevant MVCT Markets

### Existing Remedies in the Relevant MVCT Markets

- 8.204 As noted in Section 5, Vodafone, O2 (now subsumed by Three following the merger in 2014), eir Mobile, Three, Tesco Mobile and Lycamobile were designated with SMP in their Relevant MVCT Markets pursuant to the 2012 MVCT Decision and, as a consequence, are subject to resultant specific regulatory obligations. All six MSPs (now five following the merger) were subject to obligations in respect of access, transparency, non-discrimination and price control.

8.205 The Newly Proposed SMP MSPs<sup>614</sup> ( iD Mobile and Virgin Media) have not, to date, been subject to SMP regulation in their Relevant MVCT Markets and consequently have not had any obligations imposed upon them.

8.206 A non-exhaustive summary of existing obligations imposed on the 2012 SMP MSPs is set out below in paragraphs 8.207 to 8.212 below.

### **Existing Transparency Remedies in the Relevant MVCT Markets**

8.207 Each of the 2012 SMP MSPs is subject to a range of transparency obligations, including *inter alia*, obligations to:<sup>615</sup>

- (a) Publish, and keep updated, a RIO offer on their website, with the RIO to include specific details, and to be sufficiently unbundled so as to ensure that undertakings availing of access are not required to pay for services or facilities which are not necessary for the access requested;
- (b) Make MTRs publicly available and publish such MTRs in an easily accessible manner on its publicly available website;
- (c) Notify ComReg of their intention to amend their MTRs; and
- (d) Publish advance notification of MTR changes<sup>616</sup> on their websites and inform affected undertakings prior to their coming into effect.

8.208 As neither iD Mobile nor Virgin Media has been designated with SMP to date, they have not had transparency obligations imposed upon them. However, each MSP currently publishes advance notification of MTR changes.<sup>617</sup>

### **Existing Non-Discrimination Remedies in the Relevant MVCT Markets**

8.209 Each of the 2012 SMP MSPs is subject to a range of non-discrimination obligations, including *inter alia*, obligations to ensure that:<sup>618</sup>

- (a) they apply equivalent conditions, including with respect to MTRs, in equivalent circumstances to undertakings requesting or being supplied with access or requesting or being supplied with information; and

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<sup>614</sup> As identified in paragraph 6.230 above.

<sup>615</sup> As set out at Section 11 of the Decision Instrument attached to the 2012 MVCT Decision, and Section 5 of the Decision Instrument attached to the 2016 MTR Decision.

<sup>616</sup> 30 calendar day advance notification is required and notifications are to contain specific details.

<sup>617</sup> Such publication typically takes place via the Eircom Switched Transit and Routing Price List (STRPL), as well as directly communicating MTR changes to directly interconnected parties having regard to the nature of commercially agreed arrangements.

<sup>618</sup> As set out at Section 10 of the Decision Instrument attached to the 2012 MVCT Decision.

- (b) access and information is provided to other undertakings under the same conditions and of the same quality as the designated SMP MSP provides to itself.

## **Existing Access Remedies in the Relevant MVCT Markets**

8.210 A range of symmetric access obligations is imposed upon each of the 2012 SMP MSPs. These include *inter alia* obligations to:<sup>619</sup>

- (a) meet reasonable requests for access;
- (b) provide access to MVCT and associated facilities;
- (c) negotiate in good faith with undertakings requesting access;
- (d) not withdraw access to facilities already granted without the prior approval of ComReg;
- (e) grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services or virtual network services;
- (f) ensure that access is provided in a fair, reasonable and timely manner; and
- (g) provide the objective reasons for a refusal of access at the time such refusal is made.

## **Existing Price Control and Cost Accounting Remedies in the Relevant MVCT Markets**

8.211 Each of the 2012 SMP MSPs is subject to a price control obligation of cost orientation.<sup>620</sup> The nature of this cost orientation obligation was further specified in the 2016 Pricing Decision,<sup>621</sup> which specified a BU-LRIC cost orientation obligation.

## **Existing Accounting Separation Remedies in the Relevant MVCT Markets**

8.212 None of the 2012 SMP MSPs has had an accounting separation obligation imposed on it.

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<sup>619</sup> As set out in Sections 8 and 9 of the Decision Instrument attached to the 2012 MVCT Decision

<sup>620</sup> As set out at Section 12 of the Decision Instrument attached to the 2012 MVCT Decision.

<sup>621</sup> ComReg document 'Mobile Termination Rates: Response to Consultation 14/29 and Supplementary Consultation 15/19 and Decision Document D02/16.'

## **Proposed Remedies for the Relevant MVCT Markets**

8.213 Having summarised the existing MVCT SMP remedies in paragraphs 8.204 to 8.212 above, in paragraphs 8.214 to 8.297 below, ComReg sets out its preliminary views on the imposition of regulatory obligations on each of the Proposed SMP MSPs:

- (a) Proposed transparency remedies (discussed in paragraphs 8.214 to 8.227 below);
- (b) Proposed non-discrimination remedies (discussed in paragraphs 8.228 to 8.235 below);
- (c) Proposed access remedies (discussed in paragraphs 8.236 to 8.257 below);
- (d) Proposed price control and cost accounting remedies (discussed in paragraphs 8.258 to 8.289 below); and
- (e) Proposed accounting separation remedies (discussed in paragraphs 8.290 to 8.297 below).

## **Proposed Transparency Remedies in the Relevant MVCT Markets**

### **Overview**

8.214 In paragraph 8.29 above concerning remedies in the Relevant FVCT Markets, ComReg set out its powers and the circumstances in which it can impose transparency remedies. These similarly apply in the context of the Relevant MVCT Markets.

8.215 In paragraphs 8.207 to 8.208 above ComReg summarised existing transparency obligations imposed on the 2012 SMP MSPs.

### **Proposed Transparency Remedies in the Relevant MVCT Markets**

8.216 ComReg considers that all Proposed SMP MSPs should be required to comply with transparency obligations in order to, among other things, minimise information asymmetries and, therefore, facilitate effective access to MVCT, thereby promoting effective competition in downstream markets.

8.217 Transparency obligations can be standalone but can also support other obligations being imposed including access, transparency, non-discrimination and price control obligations.

8.218 In order to ensure and support compliance (and transparency of this) by Proposed SMP MSPs with respect to their price control obligations, ComReg proposes to require such MSPs to provide ComReg with advance pre-notification of any proposed changes to MTRs. In this respect, ComReg is requiring Proposed SMP MSPs to provide 60 (sixty) calendar days' notification in advance of the date on which any such MTR amendments come into effect. In addition, each Proposed SMP MSP will, at the same time, be required to furnish ComReg with a statement confirming that its proposed amendments comply with its price control obligations.

8.219 ComReg proposes that, in addition to a general transparency obligation, pursuant to Regulation 9 of the Access Regulations, each Proposed SMP MSP would be required to:

- (a) Make publicly available and keep updated on its website a Reference Interconnect Offer ('**RIO**') which is the standard offer of contract for access to MVCT and associated facilities;
- (b) Ensure that the RIO is sufficiently unbundled in order that Service Providers availing of access are not required to pay for services or facilities which are not necessary for the access requested;
- (c) To ensure that the RIO includes a description of the relevant offerings broken down into components according to market needs and a description of the associated terms and conditions, including prices;
- (d) To ensure that the RIO includes a description of the technical specifications and network characteristics of the access (including access to MVCT and associated facilities) being offered;
- (e) Make MTRs publicly available and publish such MTRs in an easily accessible manner on its website. In so doing, each Proposed SMP MSP shall publish notice of its intention to amend its MTRs not less than 30 calendar days in advance of the date on which any such amendment comes into effect, unless otherwise agreed with ComReg. Such notice shall, at a minimum, include a statement of the existing MTRs, a description of the proposed new MTRs, and the date on which such new MTRs are proposed to come into effect;
- (f) Provide directly to undertakings with which it has entered into a contract in respect of access to MVCT and associated facilities, written notification of its intention to amend the MTRs. Such written notification is to be provided not less than 30 calendar days in advance of the date on which any such MTR amendment comes into effect, unless otherwise agreed with ComReg. Such notice is also to include, at a minimum, a statement of the existing MTRs, a description of the proposed new MTRs, and the date on which such new MTRs are proposed to come into effect;

- (g) To notify ComReg of its intention to amend its published MTRs, not less than 60 calendar days in advance of the date on which any such amendments come into effect, unless otherwise agreed with ComReg. Following notification and approval from ComReg, notify undertakings directly (as outlined in (f) above); and
- (h) To furnish to ComReg at the date outlined in (g) above a statement confirming that its proposed amended MTRs comply with its price control obligations.

8.220 For the reasons set out in paragraph 8.37 above, ComReg considers that the 30 calendar day timeframe for advance notification of MTR changes is appropriate. ComReg also notes that in the consultation leading to the 2012 MVCT Decision it had proposed a 35 calendar day advance notification timeline. However, having considered responses received (including from MSPs), ComReg adopted a 30 calendar day time period.<sup>622</sup>

8.221 As a proportionate measure, ComReg has furthermore proposed that, with respect to the Newly Proposed SMP MSPs, the RIO be published within 90 calendar days following the effective date of ComReg's decision on this MVCT market analysis. This will allow such MSPs sufficient time to adapt their publication processes accordingly.

8.222 The above transparency obligations will need to be implemented by SMP MSPs in a manner that is consistent with other obligations such as those relating to access, non-discrimination and price control.

8.223 In view of current notification arrangements (arising from existing SMP obligations or commercial practice) in relation to contract management between MSPs and other undertakings, as well as existing MTR publication arrangements, ComReg does not consider that the implementation of the above obligations would place a disproportionate burden on the Proposed SMP MSPs.

8.224 ComReg has also considered whether transparency obligations alone would be sufficient to address the competition problems identified in Section 7, but does not consider this to be the case. For example, excessive pricing, discriminatory behaviour (on price or non-price grounds) or denial of access problems would not be adequately addressed through transparency obligations alone.

### **Overall preliminary conclusion on Transparency Remedies for the Relevant MVCT Markets**

8.225 Having regard to the analysis set out at paragraphs 8.214 to 8.224 above, ComReg proposes to impose Transparency obligations as set out in paragraph 8.218 on all Proposed SMP MSPs.

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<sup>622</sup> See paragraph 8.77 of the 2012 MVCT Decision.



8.226 In view of current notification arrangements (arising from SMP obligations or commercial practice) in relation to MTR publication arrangements, ComReg does not consider that the implementation of the above obligations would place a disproportionate burden on SMP MSPs. ComReg does recognise that the obligation to publish a RIO requires some greater level of implementation than, for instance, publication of prices on websites. However, ComReg is of the view that this obligation is proportionate in view of the competition problems (as described in Section 7) which it is intended to address.

8.227 ComReg has also considered whether transparency obligations alone would be sufficient to address the competition problems identified in Section 7 and does not consider this to be the case. For example, excessive pricing, constructive denial of access problems or poor service quality issues could still occur in the presence of a transparency obligation.

## **Proposed Non-Discrimination Remedies for the Relevant MVCT Markets**

### **Overview**

8.228 In paragraphs 8.48 to 8.50 above concerning remedies in the Relevant FVCT Markets, ComReg set out its powers and the circumstances within which it can impose non-discrimination remedies. These similarly apply in the context of the Relevant MVCT Markets.

8.229 In paragraph 8.209 above ComReg summarised existing non-discrimination obligations imposed on the 2012 SMP MSPs.

### **Proposed Non-Discrimination Remedies for the Relevant MVCT Markets**

8.230 As set out in detail at paragraph 8.52 above, the application of non-discrimination obligations is designed to prevent a vertically-integrated SMP Service Provider from engaging in discriminatory (price or non-price) behaviour which would hinder the development of sustainable and effective competition in downstream markets. In Section 7, ComReg identified that Proposed SMP MSPs had the ability and incentive to engage in such behaviours.

8.231 Accordingly, ComReg proposes to require that all Proposed SMP MSPs:

- (a) apply equivalent conditions, including in respect of MTRs or other charges, in equivalent circumstances to other Service Providers requesting or being provided with access (including access to MVCT and associated facilities) or requesting or being provided with information in relation to such access; and

- (b) ensure that access (including access to MVCT and associated facilities) and information in relation to such access are provided to all other Service Providers under the same conditions and of the same quality as the MSP designated with SMP provides to itself or to its subsidiaries, affiliates or partners.

8.232 Additionally, and for the avoidance of doubt, the non-discrimination obligations above are to apply irrespective of whether or not a specific request for services or information has been made by a Service Provider to a Proposed SMP MSP. For example, if information or a service is provided by a SMP MSP following a request from one undertaking, the SMP MSP is obliged to offer the same information or service to other Service Providers, notwithstanding that such other undertakings have not made a request for it. This is to ensure fair treatment of all Service Providers.

### **Overall preliminary conclusion on Proposed Non-Discrimination Remedies for the Relevant MVCT Markets**

8.233 Having regard to the analysis set out at paragraphs 8.228 to 8.232 above, ComReg proposes to impose the following Non-Discrimination obligations on all Proposed SMP MSPs:

- (a) to apply equivalent conditions, including in respect of MTRs or other charges, in equivalent circumstances to other undertakings requesting or being provided with access (including access to MVCT and associated facilities) or requesting or being provided with information in relation to such access; and
- (b) to ensure that access (including access to MVCT and associated facilities) and information in relation to such access are provided to all other undertakings under the same conditions and of the same quality as the MSP designated with SMP provides to itself or to its subsidiaries, affiliates or partners.

8.234 ComReg has also considered whether non-discrimination obligations alone would be sufficient to address the competition problems identified in Section 7 and does not consider this to be the case. For example, excessive pricing, constructive denial of access problems or poor service quality issues could still occur in the presence of a non-discrimination obligation.

8.235 ComReg considers that the imposition of the above non-discrimination obligations is both proportionate and justified, having regard to the competition problems identified. ComReg therefore proposes that all SMP MSPs should have non-discrimination obligations imposed upon them. Furthermore, it is ComReg's preliminary view that it is not objectively justified to adopt an alternate approach for those MSPs that ComReg is proposing to designate with SMP for the first time.

## **Proposed Access Remedies for the Relevant MVCT Markets**

### **Overview**

8.236 In paragraphs 8.61 to 8.63 above, ComReg set out the regulatory framework governing its ability to impose access remedies, and the factors it must take into consideration in doing so. In paragraph 8.204 to 8.212 ComReg also summarised existing obligations imposed on the 2012 SMP MSPs.

### **Proposed Access Remedies for Relevant MVCT Markets**

8.237 As was the case with respect to FVCT,<sup>623</sup> Service Providers are wholly dependent on having access to MVCT services and associated facilities, in order to enable subscribers to make voice calls to subscribers of Proposed SMP MSPs. ComReg has preliminarily concluded that the Proposed SMP MSPs<sup>624</sup> have the ability and incentive<sup>625</sup> to refuse, or effectively refuse, to provide interconnection and access to MVCT and associated facilities to downstream competitors, or to provide these services on discriminatory or unreasonable terms and conditions (including in relation to price and quality).

8.238 It is ComReg's preliminary view that each of the Relevant MVCT Markets are (and will continue to be over the period intended to be covered by this review) characterised by differences in negotiating power<sup>626</sup> between Proposed SMP MSPs and buyers of MVCT services, particularly given the absence of credible alternative sources of supply of MVCT.

8.239 A denial of interconnection and access to MVCT and associated facilities, or the imposition of unreasonable terms and conditions having similar effect, would, in ComReg's view, ultimately hinder the emergence of sustainable competitive downstream (including retail) markets in which Service Providers and other undertakings purchasing MVCT compete. Actual or constructive denial of access would ultimately be detrimental to the interests of end users and would also otherwise hinder the objectives set out in Section 12 of the Communications Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations.

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<sup>623</sup> See paragraph 8.65 above.

<sup>624</sup> As set out in detail in Section 6 above, at paragraph 6.230.

<sup>625</sup> For further details, please refer to paragraph 7.77.

<sup>626</sup> ComReg has considered the impact of Countervailing Buyer Power in Section 6 in the context of SMP.

- 8.240 ComReg notes that Newly Proposed SMP MSPs providing MVCT (which have lower subscriber numbers or traffic flows relative to other Service Providers) may face fewer incentives to refuse or delay access compared to larger and more established MSPs. However, it is ComReg's preliminary view that such MSPs may effectively refuse or delay access (by extending negotiations or imposing unreasonable terms and conditions) with a view to extracting an inefficient termination rate. In particular, they may engage in such behaviour with respect to undertakings of a similar size and/or those with which they are directly competing in downstream retail markets.<sup>627</sup>
- 8.241 For the same reasons as set out with respect to FVCT remedies, ComReg considers that use of its dispute resolution powers would be inefficient and ineffective in resolving the broader competition problem of denial of access, or delayed access by a SMP MSP.
- 8.242 ComReg considers that the access obligations set out below should therefore be imposed on all Proposed SMP MSPs, as these obligations will promote regulatory predictability and ensure that Proposed SMP MSPs operating in similar market circumstances are treated, from a regulatory perspective, in an equivalent and consistent manner. The access remedies which ComReg proposes to impose on each of the Proposed SMP MSPs are set out below.

#### **Requirement to provide access to MVCT and associated facilities**

- 8.243 ComReg considers that a requirement on the Proposed SMP MSPs to provide access is needed to facilitate competition in downstream markets. ComReg proposes that such MSPs will be required to meet all reasonable requests from other undertakings for the provision of access and, in so doing, shall provide access to MVCT and associated facilities.

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<sup>627</sup> For further detail, please refer in particular to paragraphs 6.80 to 6.88 above.

8.244 ComReg is proposing to impose an obligation to provide access to all necessary information required to terminate calls as an associated facility in the Relevant MVCT Markets. ComReg notes that, given Mobile Number Portability ('MNP'), subscribers can retain their mobile telephone number when switching their service to another MSP. Given MNP, Service Providers seeking to purchase MVCT will need to be in a position to identify the routing details associated with individual telephone numbers, with such information being under the control of the Proposed SMP MSP. ComReg considers that the ability for Service Providers purchasing MVCT to have efficient and effective access to this routing information is necessary to facilitate the accurate and efficient routing of calls to ported telephone numbers and, therefore, MVCT. Absent access to this, originating Service Providers directly interconnected with MSPs will have no direct means of knowing to which terminating MSP a call should be routed. This could result in inefficient routing of a call. ComReg sets out below its assessment of the factors listed in paragraph 8.63 above in respect of the proposed access obligations.

- (a) **Technical and economic viability of using or installing competing facilities:** In Section 5 ComReg defined the Relevant MVCT Markets, and set out its preliminary view that existing competition, potential competition and CBP are unlikely to result in effective competition in each of these markets. In light of this, and having regard to the presence of barriers to entry in such markets (related to control of infrastructure/resources not easily duplicated), using or installing competing facilities to provide MVCT is not likely to be technically or economically feasible. Each of the Proposed SMP MSPs provide or have offered to provide interconnection and access to MVCT (albeit in some cases in the presence of regulation), as well as to associated facilities necessary to ensure end-to-end interoperability of the services.
- (b) **Feasibility of providing access in relation to capacity available:** Access to MVCT and associated facilities is currently provided by MSPs, either on foot of existing regulatory obligations or commercially, where such obligations do not exist. On a forward-looking basis, ComReg is not aware of any material capacity constraints that would give rise to Proposed SMP MSPs facing material difficulties in meeting their proposed access obligations.

- (c) **The initial investment of the facility owner:** Having regard to Regulation 12(4)(c) of the Access Regulations, ComReg's approach to imposing access remedies is based on principles that, *inter alia*, allow a reasonable rate of return on adequate capital employed, taking into account the risks involved. When applying price-control remedies (see paragraphs 8.258 to 8.261 below, with this also to be considered in the Separate Pricing Consultation), ComReg will be mindful of facilitating the development of effective and sustainable competition to the benefit of consumers without compromising efficient entry and investment decisions of undertakings over time. ComReg is also mindful of the role of regulatory transparency and consistency in contributing to a more predictable environment conducive to long-run investment. ComReg will ensure that, in setting an appropriate price control, SMP MSPs recover those efficiently incurred costs which are relevant to the provision of access to MVCT.
- (d) **The need to safeguard competition:** ComReg has highlighted in Section 7, the impacts on downstream competition and consumers that could arise from Proposed SMP MSPs engaging in exploitative or exclusionary behaviours in the Relevant MVCT Markets (absent regulation). These include, *inter alia*, excessive pricing and leveraging behaviours which would give rise to distortions in downstream competition among Service Providers. ComReg considers that imposing access (and other obligations) in the Relevant MVCT Markets will safeguard the long-term development of competition in downstream markets, thereby benefiting consumers.
- (e) **Intellectual property rights:** ComReg's preliminary view is that intellectual property rights are not a concern in the context of the provision of access to MVCT and associated facilities in the Relevant MVCT Markets.
- (f) **Pan-European services:** ComReg is of the preliminary view that its proposed approach will facilitate the provision of pan-European services, as the approach is consistent with the policies of the European Commission, and of other NRAs. Consistent regulation of MVCT across the EU will support the seamless provision of pan-European services by allowing Service Providers in other EU Member States to provide electronic communications services in the State. For example, calls originating in the EU outside the State, but destined for an Irish MSP subscriber will require access to MVCT.

8.245 Having regard to the above, ComReg's preliminary view is that the obligations above requiring Proposed SMP MSPs to provide access to MVCT and associated facilities are both proportionate and justified.

### **Requirement to negotiate in good faith**

8.246 Pursuant to Regulation 12(2)(b) of the Access Regulations, ComReg proposes to impose an obligation on all Proposed SMP MSPs to negotiate in good faith with Service Providers requesting access to MVCT and associated facilities. Having regard to the competition problems identified in Section 7, ComReg considers this measure to be proportionate and justified in order to ensure that genuine *bona fide* negotiations take place between Proposed SMP MSPs and other Service Providers in relation to access, particularly given the identified competition problem that Proposed SMP MSPs have the ability and incentive to expressly or constructively refuse to provide MVCT to a Service Provider requesting access. It will also somewhat address imbalances in the bargaining powers of the respective parties in the negotiation process by reducing incentives to unnecessarily prolong negotiations and will facilitate a more efficient and effective consideration of reasonable requests for access and provision of such access. Overall, an obligation to negotiate in good faith will support the provision of efficient and effective access to MVCT and associated facilities, thereby promoting the development of downstream competition, to the benefit of consumers.

8.247 In the context of requirements to negotiate in good faith, ComReg also proposes that, should an access request be refused, the objective criteria for refusing same should be provided by the Proposed SMP MSP to the requesting Service Provider at the time of refusal. This will also improve regulatory effectiveness and efficiency, should any complaint/dispute be raised with ComReg, as it will provide a useful audit trail for compliance monitoring purposes.

8.248 In ComReg's view, this obligation does not impose any significant additional burden on Proposed SMP MSPs beyond that which would normally be expected to occur in circumstances involving fair commercial negotiations between parties.

### **Requirement not to withdraw access to facilities already granted**

8.249 Pursuant to Regulation 12(2)(c) of the Access Regulations, ComReg proposes to impose an obligation on all Proposed SMP MSPs not, without the prior approval of ComReg, to withdraw access to facilities already granted. For the avoidance of doubt, this does not mean there are no objectively justified circumstances for withdrawing access, for example, to ensure network integrity and security.

8.250 Having regard to the competition problems identified in Section 7, ComReg has identified that an SMP MSP would have the ability and incentive to delay/refuse access to MVCT and access to associated facilities, resulting in restrictions and/or distortions in competition to the detriment of consumers. As networks develop, this could also result in changes to points of interconnection or types of interconnection by Proposed SMP MSPs. ComReg recognises that a balance needs to be struck between the investments of Proposed SMP MSPs in providing MVCT and the investments made by buyers of MVCT in availing of it. However, ComReg considers that the proposed remedy, requiring that Proposed SMP MSPs seek ComReg's approval prior to any withdrawal of access, will promote regulatory certainty for all parties without unduly restricting investment incentives.

### **Requirement to grant open access to technical interfaces, protocols and other key technologies**

8.251 Pursuant to Regulation 12(2)(e) of the Access Regulations, ComReg proposes to impose an obligation on all Proposed SMP MSPs to grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services or virtual network services. Having regard to the competition problems identified in Section 7, ComReg considers that this obligation is both justified and proportionate in order to ensure that, in the context of the provision of access to MVCT and associated facilities, interoperability of networks and services is ensured. This would also apply in the context of access to the Mobile Number Porting Centralised Database ('MNPCD'). In so doing, ComReg considers that this remedy will contribute to the development of effective downstream competition to the ultimate benefit of consumers.

### **Requirements governing fairness, reasonableness and timeliness of access**

8.252 Pursuant to Regulation 12(3) of the Access Regulations, ComReg proposes to impose an obligation on all Proposed SMP MSPs that access to MVCT and associated facilities should be provided in a fair, reasonable and timely manner.

8.253 In this regard, and as noted in paragraphs 8.247 above, ComReg is also proposing to impose an obligation on all Proposed SMP MSPs that, where a request for access from an undertaking is refused or only partially met, the objective reasons for such should be provided in detail to the undertaking which has made the request, and to do so in a timely fashion (having regard to the nature of the request).



8.254 Both of the proposed remedies above are intended to address competition problems associated with the denial of (actual or constructive) access to MVCT, as well as to minimise the scope for discriminatory treatment of undertakings by ensuring consistency in the treatment of requests for access.

8.255 ComReg considers that this obligation will address access concerns and thereby contribute to the development of effective downstream competition, to the ultimate benefit of consumers.

### **Overall preliminary conclusion on Proposed Access Remedies**

8.256 Having regard to the analysis set out at paragraphs 8.236 to 8.255 above, ComReg proposes to impose the following access obligations on all Proposed SMP MSPs requiring them to:

- (a) provide access to MVCT and Associated Facilities;
- (b) negotiate in good faith;
- (c) not withdraw access to facilities already granted;
- (d) grant open access to technical interfaces, protocols and other key technologies; and
- (e) provide access to MVCT and associated facilities in a fair, reasonable and timely manner.

8.257 ComReg's preliminary view is that obligations to provide access to MVCT and associated facilities are both proportionate and justified. ComReg has considered whether obligations other than those relating to access would, in themselves, resolve the competition problems identified in Section 7. ComReg does not consider this to be the case. Moreover, the imposition of the above access obligations alone would also not resolve issues such as excessive pricing, discrimination (on price or quality grounds), or ensure transparency of terms and conditions of access.

## **Proposed Price Control and Cost Accounting Remedies for the Relevant MVCT Markets**

### **Overview**

8.258 In paragraphs 8.98 to 8.101 above concerning remedies in the Relevant FVCT Markets, ComReg set out its powers and the circumstances within which it can impose price control and cost accounting obligations. These similarly apply in the context of the Relevant MVCT Markets.

8.259 Such obligations may include cost orientation of prices and obligations concerning cost accounting systems, for the provision of specific types of access or interconnection in situations where a market analysis indicates that a lack of effective competition means that the operator concerned may sustain prices at an excessively high level or may apply a price squeeze to the detriment of end users.<sup>628</sup>

8.260 In imposing any such obligations, ComReg is also required<sup>629</sup> to:

- (a) take into account the investment made by the SMP operator which ComReg considers relevant and allow such operator a reasonable rate of return on adequate capital employed, taking into account any risks involved specific to a particular new investment network project; and
- (b) ensure that any cost recovery mechanism or pricing methodology that ComReg imposes serves to promote efficiency and sustainable competition and maximise consumer benefits.

8.261 In paragraph 8.211 above, ComReg also summarised existing price control obligations imposed on the 2012 SMP MSPs, namely cost orientation, with MTRs subject to a Pure LRIC costing methodology.

### **Proposed Price Control and Cost Accounting Remedies for the Relevant MVCT Markets**

8.262 In Section 7, ComReg set out its preliminary view that Proposed SMP MSPs have the ability and incentive to set prices for access to MVCT at an excessive or inefficient level, thereby impacting on downstream competition to the ultimate detriment of consumers. To address these risks, ComReg therefore considers that the imposition of symmetric price control obligations of cost orientation on all Proposed SMP MSPs is justified and proportionate.

8.263 ComReg intends to publish a Separate Pricing Consultation in Q4 2017 which will give consideration to, and further specify, the precise cost orientation methodology (and its implementation). The Separate Pricing Consultation will take utmost account of the 2009 Termination Rate Recommendation.

8.264 In view of the above, in this Consultation, ComReg proposes to impose a price control remedy of cost orientation on all MSPs which it proposes to designate with SMP. It is intended that the outcomes arising from this Consultation, along with the Separate Pricing Consultation will ultimately dovetail in timing terms to form ComReg's ultimate detailed specification and decision on these matters.

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<sup>628</sup> Pursuant to Regulation 13(1) of the Access Regulations.

<sup>629</sup> Pursuant to Regulation 13(2) and 13(3) of the Access Regulations.

### Price Control Remedies for the Relevant MVCT Markets

- 8.265 The 2012 MVCT Decision and the 2016 MTR Decision imposed price controls of cost orientation on the 2012 SMP MSPs, and ComReg proposes to retain this approach to price control. ComReg considers that other price control methodologies are less appropriate.
- 8.266 **Retail minus** regulation sets a wholesale price by reference to an SMP MSP's retail price, minus an appropriate margin to enable the purchasing Service Provider to cover their retail costs and compete with the SMP Service Provider. ComReg does not consider that this approach would be appropriate in the context of MVCT, given the complex wholesale and retail pricing structure of the services offered by MSPs and the disconnect between retail prices and the likely costs of termination. ComReg also notes that, given that there are no retail charges for receiving calls, a retail minus approach for MVCT would also be impractical.
- 8.267 While ComReg has, in the past, applied a **benchmarking** approach (in its 2012 MTRs Decision), this approach has been found to be inconsistent with EU and Irish legislation. Following an appeal by Vodafone against the 2012 MTRs Decision, in its judgment delivered on 14 August 2013, the High Court found that the benchmarking approach adopted by ComReg in this instance (and recommended by the European Commission) for setting MTRs was outside the scope of what is provided for in the relevant EU and Irish legislation. Accordingly, ComReg proposes not to adopt a benchmarking approach with respect to FVCT and MVCT.
- 8.268 ComReg has similarly declined to apply a **price cap** approach in the form of CPI-X (where CPI is the rate of inflation, measured by the Consumer Price Index). ComReg notes that price control by means of cost orientation is, itself, a form of price cap regulation, whereby the SMP entity is permitted to charge a price which is reflective of underlying costs. In contrast, CPI-X price cap regulation permits an SMP entity to charge a price which incentivises efficiency savings. However, it may be challenging for a regulator to determine what the appropriate predicted level of efficiency savings is likely to be over the course of the market review.
- 8.269 ComReg is of the preliminary view that each of the Proposed SMP MSPs have the ability and incentive to engage in excessive pricing. In view of this, a combination of transparency, non-discrimination and access obligations is considered insufficient and a cost orientation obligation is considered necessary to address the scope for excessive pricing in the Relevant MVCT Markets.

- 8.270 Given the risk of price-related competition problems which ComReg has identified in Section 7 as deriving from Proposed SMP MSPs' abilities and incentives to engage in excessive or inefficient pricing of MVCT, ComReg proposes that each Proposed SMP MSP be subject to a cost orientation obligation with respect to access to MVCT and associated facilities, the detailed specification of which will be determined through the Separate Pricing Consultation.
- 8.271 A consistent approach to price control in the form of cost orientation for each Proposed SMP MSP will ensure efficient price and investment signals are provided to all market players and, in ComReg's view, does not represent an undue burden in light of the identified problem of excessive pricing and its potential detrimental impact on downstream competition and consumers.
- 8.272 ComReg also considers that imposing a cost orientation obligation on all such MSPs provides regulatory certainty to each party, as well as to buyers of MVCT who purchase this service from several MSPs. In doing so, it will minimise the scope for disputes or investigations and potentially inefficient case-by-case regulation through dispute resolution or other activities. A consistent and harmonised approach will also promote the provision of pan-European services and minimise the regulatory burden on MSPs, many of which have operations in other European countries.
- 8.273 A cost orientation obligation, once specified in detail, will also reduce the magnitude of the effects of any undue on-net/off-net price discrimination through excessive MTRs, while at the same time continuing to allow retail pricing flexibility.
- 8.274 In this regard, absent regulation, ComReg has observed<sup>630</sup> that both iD Mobile and Virgin Media, notwithstanding their size or the duration of their operations in retail and MVCT markets, have priced their MVCT services persistently above the levels of the 2012 SMP MSPs, and at a level above that which would pertain in a competitive market (using regulated MTRs as a proxy for competitive prices). Given the impact of such behaviour on competition and consumers, ComReg sees no objective reason to distinguish its approach in setting a price control for these Newly Proposed SMP MSPs from the price control approach for other MSPs, particularly given that such a remedy is designed to address the same competition problem.
- 8.275 ComReg also notes that the analysis set out above at paragraphs 8.127 to 8.162 in respect of FVCT of calls originated within and outside the EEA similarly applies in respect of mobile calls.

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<sup>630</sup> See earlier discussion at paragraphs 6.123 and 6.203.

8.276 As set out at Table 39 above, EU NRAs have taken different approaches to the treatment of this issue. While some NRAs continue to apply remedies to MVCT without regard to the origin of the call (as is the current practice in Ireland), other EU NRAs have altered their approaches to the regulation of MTRs to allow MSPs some latitude in their treatment of termination for calls originated in non-EEA countries.

8.277 As set out at paragraphs 8.127 to 8.162 above, ComReg is of the view that there are advantages and disadvantages associated with retaining the status quo ante on the one hand, and removing the price control obligation of cost orientation on SMP MSPs in respect of calls originated outside the EEA, on the other hand. ComReg accordingly seeks the view of respondents to this Consultation on the most appropriate approach, of the two proposed, to remedy the identified competition problem.

**Application of MTR Price Control with respect to EEA mobile subscribers while roaming in non-EEA countries**

8.278 ComReg considers it necessary to clarify the position with respect to the potential application of Candidate Approach 2 to mobile roaming calls, in particular, calls of subscribers of EEA MSPs while roaming in non-EEA countries ('EEA Roaming Calls'). For the avoidance of doubt, EEA Roaming Calls would, for the purposes of Candidate Approach 2, be considered to be calls originating within the EEA. Therefore, Proposed SMP MSPs would be required to charge cost oriented MTRs when supplying MVCT to EEA MSPs with respect to such EEA Roaming Calls.<sup>631</sup>

8.279 Conversely, calls of subscribers of non-EEA MSPs while roaming in EEA countries would, for the purposes of Candidate Approach 2, be considered to be calls originating outside the EEA. Therefore, Proposed SMP MSPs would not be required to charge cost oriented MTRs when supplying MVCT to non-EEA MSPs with respect to such calls.

## **Cost Accounting Remedies**

8.280 If specific price control obligations are to be meaningful, it is generally necessary to have a clear and comprehensive understanding of the costs associated with the provision of MVCT by a SMP MSP. Obligations to maintain appropriate cost accounting systems generally support obligations of price control (and accounting separation), and can also assist ComReg in monitoring the obligation of non-discrimination.

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<sup>631</sup> As set out at paragraphs 8.160 and 8.161 above.

- 8.281 Having regard to the detailed nature of the cost orientation and price control obligations specified in the Separate Pricing Consultation, to support the effectiveness of such obligations, ComReg does not currently consider it necessary or justified to impose a cost accounting obligation.
- 8.282 Ultimately, the burden of proof will rest on the Proposed SMP MSPs to show that their MTRs are derived from costs. Furthermore, for the purpose of calculating the cost of efficient provision of MVCT and associated facilities, in accordance with Regulation 13(4) of the Access Regulations, ComReg may also use cost accounting methods other than those used by any Proposed SMP MSPs. ComReg may also issue directions requiring an operator to provide full justification for its prices and may, where appropriate, require prices to be adjusted.
- 8.283 Each of the 2012 SMP MSPs are likely to have accounting systems for normal business purposes which should be sufficient to provide the necessary level of financial granularity to ComReg when required.
- 8.284 ComReg notes that eir Mobile is a fully-owned subsidiary of Eircom, which, as a 2007 SMP MSP, is subject to a cost accounting obligation on its Relevant FVCT Market.<sup>632</sup> No other Proposed SMP MSP is linked to a 2007 SMP FSP which is subject to a cost accounting obligation.
- 8.285 Given the specific circumstances of the Relevant MVCT Markets, recourse to Regulation 13(4) above, and the as-yet unpublished detailed nature of the proposed cost orientation obligation, ComReg does not consider it to be proportionate or necessary, at this point, to impose an obligation to maintain cost accounting systems on any Proposed SMP MSP.
- 8.286 Having regard to the outcome of the specific nature of the cost orientation obligation through the Separate Pricing Consultation, ComReg may reconsider, at a later date, the requirement for a cost accounting obligation.

### **Overall preliminary conclusion on Price Control and Cost Accounting Remedies for the Relevant MVCT Markets**

- 8.287 Having regard to the analysis set out at paragraphs 8.258 to 8.286 above, ComReg proposes that each Proposed SMP MSP shall be subject to the following price control obligation:
- (a) a cost orientation obligation as regards MTRs and prices charged for access to, or use of, MVCT and associated facilities.

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<sup>632</sup> Eircom's Accounting Separation and Cost Accounting obligations imposed in other regulated markets require it to have in place a well-defined, transparent and verifiable transfer charging system to demonstrate non-discrimination and to calculate internal costs and revenues. These are set out in ComReg's 2010 Accounting Separation Decision.

8.288 The detailed nature of the above cost orientation obligation will be further specified through the Separate Pricing Consultation.

8.289 Having considered the matter, ComReg holds the view that price control obligations alone would be insufficient to address the competition problems identified in Section 7. For example, discriminatory behaviour (on price or non-price grounds) or denial of access problems would not be adequately redressed by means of such obligations alone.

## **Accounting Separation Remedies for the Relevant MVCT Markets**

### **Overview**

8.290 In paragraphs 8.175 to 8.176 above concerning remedies in the Relevant FVCT Markets, ComReg set out its powers and the circumstances within which it can impose accounting separation obligations. These similarly apply in the context of the Relevant MVCT Markets.

8.291 In paragraph 8.212 above ComReg also noted that none of the 2012 SMP MSPs have had accounting separation obligations imposed upon them.

### **Proposed Accounting Separation Remedies for the Relevant MVCT Markets**

8.292 The purpose of an accounting separation obligation (set out at paragraph 8.176 above) is to provide a higher level of detail of information than that which can be derived from the statutory financial statements of SMP Service Providers, with the objective of reflecting, as closely as possible, the performance of those parts of the undertaking's business were it to operate on a standalone basis. In the case of vertically-integrated undertakings, it can support non-discrimination obligations and prevent unfair cross-subsidies to other services.

- 8.293 Subject to the implementation of an appropriate price control obligation (considered in the Separate Pricing Consultation), ComReg does not consider it appropriate or proportionate at this point to impose an obligation on MSPs designated with SMP on the Relevant MVCT Markets to maintain separate accounts. Having regard to the competition problems identified in Section 7 and the particular circumstances of the Relevant MVCT Markets,<sup>633</sup> it is ComReg's view that the imposition of an accounting separation obligation at this stage may be excessively burdensome and costly for SMP MSPs to comply with and may therefore represent a disproportionate approach to resolving issues such as excessive pricing (and their impacts on downstream markets), particularly in light of the alternative proposed obligations identified in the subsections above.
- 8.294 An appropriately specified cost orientation obligation that takes utmost account of the 2009 Termination Rate Recommendation, coupled with non-discrimination obligations, should prevent restrictions or distortions in competition in downstream markets arising from the impact of excessively priced MTRs on off-net retail prices for calling mobile subscribers (and price discrimination with respect to on-net MTRs).
- 8.295 ComReg also considers that, in the specific circumstances of this analysis of the Relevant MVCT Markets, the potential burden of an accounting separation obligation on smaller MSPs, in particular, the four MVNOs (Tesco Mobile, Lycamobile, iD Mobile and Virgin Media), would likely be disproportionate, compared to the MNOs.
- 8.296 Overall, for the reasons outlined above, ComReg does not, at this time, intend to impose an accounting separation obligation on any MSP. However, the matter will be kept under review having regard to the specification and implementation of the detailed price control remedy, which will be pursued through the Separate Pricing Consultation, and the possibility of further consideration of any cost accounting obligations.

### **Overall preliminary conclusion on Accounting Separation Remedies for the Relevant MVCT Markets**

- 8.297 Having regard to the analysis set out at paragraphs 8.290 to 8.296 above, ComReg therefore proposes not to impose accounting separation obligations on any Proposed SMP MSP.

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<sup>633</sup> Given that the intended SMP MSPs do not currently supply products/services in several wholesale markets, the potential for horizontal leverage issues to arise is, in ComReg's view, minimised.



## Overall Preliminary Conclusions on Remedies in the Relevant MVCT Markets

8.298 Having regard to the competition problems identified in Section 7 and the discussion in paragraphs 8.213 to 8.297 above, ComReg proposes to impose a range of access, non-discrimination, transparency and price control remedies on all Proposed SMP MSPs.

### Proposed Transparency Remedies for the Relevant MVCT Markets

8.299 Having regard to the analysis set out at paragraphs 8.214 to 8.224 above, ComReg proposes to impose Transparency obligations as identified in paragraph 8.218 on each Proposed SMP MSP:

- (a) Make publicly available and keep updated on its website a Reference Interconnect Offer ('RIO') which is the standard offer of contract for access to MVCT and associated facilities;
- (b) Ensure that the RIO is sufficiently unbundled in order that Service Providers availing of access are not required to pay for services or facilities which are not necessary for the access requested;
- (c) To ensure that the RIO includes a description of the relevant offerings broken down into components according to market needs and a description of the associated terms and conditions, including prices;
- (d) To ensure that the RIO includes a description of the technical specifications and network characteristics of the access (including access to MVCT and associated facilities) being offered;
- (e) Make MTRs publicly available and publish such MTRs in an easily accessible manner on its website. In so doing, it shall publish a notice of its intention to amend its MTRs not less than 30 calendar days in advance of the date on which any such amendment comes into effect. Such notice shall, at a minimum, include a statement of the existing MTRs, a description of the proposed new MTRs, and the date on which such new MTRs are proposed to come into effect;
- (f) Provide directly to undertakings with which it has entered into a contract in respect of access to MVCT and associated facilities, written notification of its intention to amend the MTRs. Such written notification is to be provided not less than 30 calendar days in advance of the date on which any such MTR amendment comes into effect. Such notice is also to include, at a minimum, a statement of the existing MTRs, a description of the proposed new MTRs and the date on which such new MTRs are proposed to come into effect;

- (g) To notify ComReg of its intention to amend its published MTRs, not less than 60 calendar days in advance of the date on which any such amendments come into effect, unless otherwise agreed with ComReg. Following notification and approval from ComReg, notify undertakings directly (as outlined in (f) above); and
- (h) To furnish to ComReg at the date outlined in (g) above a statement confirming that its proposed amended MTRs comply with its price control obligations.

8.300 In view of current notification arrangements (arising from SMP obligations or commercial practice) in relation to MTR publication, ComReg does not consider that the implementation of the above obligations would place a disproportionate burden on SMP MSPs.

### **Proposed Non-Discrimination Remedies for the Relevant MVCT Markets**

8.301 Having regard to the analysis set out at paragraphs 8.228 to 8.233 above, ComReg proposes to impose the following Non-Discrimination obligations on all Proposed SMP MSPs:

- (a) to apply equivalent conditions, including in respect of MTRs or other charges, in equivalent circumstances to other undertakings requesting or being provided with access (including access to MVCT and associated facilities) or requesting or being provided with information in relation to such access; and
- (b) to ensure that access (including access to MVCT and associated facilities) and information in relation to such access are provided to all other undertakings under the same conditions and of the same quality as the MSP designated with SMP provides to itself or to its subsidiaries, affiliates or partners.

8.302 ComReg has also considered whether non-discrimination obligations alone would be sufficient to address the competition problems identified in Section 7 and does not consider this to be the case. For example, excessive pricing, constructive denial of access problems or poor service quality issues could still occur in the presence of a non-discrimination obligation.

8.303 ComReg considers that the imposition of the above non-discrimination obligations is both proportionate and justified, having regard to the competition problems identified. ComReg therefore proposes that all Proposed SMP MSPs should have non-discrimination obligations imposed upon them. Furthermore, it is ComReg's preliminary view that it is not objectively justified to adopt an alternate approach for those MSPs that ComReg is proposing to designate with SMP for the first time.

## **Proposed Access Remedies for the Relevant MVCT Markets**

- 8.304 Having regard to the analysis set out at paragraphs 8.236 to 8.255 above, ComReg proposes to impose the following access obligations on all Proposed SMP MSPs requiring them:
- (a) to provide access to MVCT and Associated Facilities;
  - (b) to negotiate in good faith;
  - (c) not to withdraw access to facilities already granted;
  - (d) to grant open access to technical interfaces, protocols and other key technologies; and
  - (e) to provide access to MVCT and associated facilities in a fair, reasonable and timely manner.
- 8.305 ComReg's preliminary view is that obligations to provide access to MVCT and associated facilities are both proportionate and justified. ComReg has considered whether obligations other than those relating to access would, in themselves, resolve the competition problems identified in Section 7. ComReg does not consider this to be the case. For example, the imposition of access obligations alone would also not resolve issues such as excessive pricing, discrimination (on price or quality grounds), or ensure transparency of terms and conditions of access.

## **Proposed Price Control and Cost Accounting Remedies for the Relevant MVCT Markets**

- 8.306 Having regard to the analysis set out at paragraphs 8.258 to 8.286 above, ComReg proposes that each Proposed SMP MSP shall be subject to the following price control obligation:
- (a) a cost orientation obligation as regards MTRs and prices charged for access to, or use of, MVCT and associated facilities.
- 8.307 The detailed nature of the above cost orientation obligation will be further specified through the Separate Pricing Consultation.
- 8.308 Having considered the matter, ComReg holds the view that price control obligations alone would be insufficient to address the competition problems identified in Section 7. For example, discriminatory behaviour (on price or non-price grounds) or denial of access problems would not be adequately redressed by means of such obligations alone.

## **Proposed Accounting Separation Remedies for the Relevant MVCT Markets**

8.309 Having regard to the analysis set out at paragraphs 8.290 to 8.296 above, ComReg proposes not to impose accounting separation obligations on any Proposed SMP MSP.

**ComReg has set out these remedies in the form of a Draft Decision Instrument which is attached at Appendix 7 and respondents are invited to comment on this draft DI as well, including whether the wording of the DI accurately gives effect to the proposed obligations outlined above.**

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| <p><b>Q. 12.</b> Do you agree with ComReg’s approach to imposing remedies in the Relevant MVCT Markets? Are there other approaches that would better address the identified competition problems? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.</p> <p><b>Q. 13.</b> Do you agree with ComReg’s draft MVCT Decision Instrument set out in Appendix 7? Do you agree with ComReg’s definitions and interpretations as set out in this draft Decision Instrument? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer.</p> <p><b>Q. 14.</b> In respect of the potential alternative approaches for price control obligations on the application of WVCT to calls originated outside the EEA, please indicate which approach would better address the identified competition problems. Please explain the reason for your answer, providing any empirical evidence and clearly indicating the relevant paragraph numbers to which your comments refer.</p> |
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## 9 Regulatory Impact Assessment

### Introduction

- 9.1 A Regulatory Impact Assessment ('**RIA**') is a detailed consideration of the likely effect of proposed new regulations, or changes to existing regulations. A RIA seeks to establish if such proposals are necessary and, in doing so, identifies any possible effects which might result from their implementation. A RIA identifies alternative regulatory options and ultimately establishes whether a proposed regulation is likely to have the desired impact. It is a structured approach to the development of policy, and analyses the impact of the proposed regulation, and other regulatory options, on different stakeholders. Appropriate use of a RIA should ensure that the most effective regulatory option is identified.
- 9.2 In carrying out a RIA, ComReg adheres to its RIA Guidelines<sup>634</sup> and takes account of the Better Regulation programme.<sup>635</sup> ComReg is also cognisant of international best practice, such as guidance from the European Commission and the Organisation for Economic Co-operation and Development ('**OECD**').
- 9.3 Section 13(1) of the Communications Regulation Act 2002 (as amended) requires ComReg to comply with Ministerial Policy Directions. Section 6 of the Ministerial Policy Direction to ComReg of February 2003 requires that, before imposing regulatory obligations on undertakings, ComReg shall conduct a RIA in accordance with international best practice, and otherwise in accordance with measures that may be adopted under the Better Regulation programme.
- 9.4 The ultimate aim of conducting a RIA of proposed regulation in the Relevant Termination Markets is to ensure that the regulatory measures which are implemented are appropriate, proportionate and justified. As decisions can vary in terms of their impact, if after initial investigation, a decision appears to have relatively low impact, ComReg may carry out a lighter RIA in that respect.
- 9.5 ComReg's approach to a RIA follows five steps:
- Step 1:** Describe the policy issue and identify the objectives;
  - Step 2:** Identify and describe the regulatory options;
  - Step 3:** Determine the impacts on stakeholders;
  - Step 4:** Determine the impacts on competition; and
  - Step 5:** Assess the impacts on stakeholders and competition and choose the best regulatory option.

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<sup>634</sup> ComReg, "Guidelines on ComReg's Approach to Regulatory Impact Assessment", ComReg Document No. 07/56a, 10 August 2007 ('**the RIA Guidelines**').

<sup>635</sup> Department of An Taoiseach, "Regulating Better", January 2004. See also "Revised RIA Guidelines: How to conduct a Regulatory Impact Analysis". June 2009. <https://www.djei.ie/en/What-We-Do/Business-Sectoral-Initiatives/Reducing-Administrative-Burdens/Better-Regulation/>

- 9.6 In the analysis set out below, ComReg repeats each of these steps in respect, firstly, of Relevant FVCT Markets and, secondly, Relevant MVCT Markets.
- 9.7 The purpose of carrying out a RIA is to aid decision-making through identifying regulatory options and analysing the impact of those options in a structured manner. The Department of An Taoiseach's Revised RIA Guidelines state that:
- “RIA should be conducted at an early stage and before a decision to regulate has been taken.”*<sup>636</sup>
- 9.8 The European Commission, in its review of impact assessments, notes that:
- “Impact assessments need to be conducted earlier in the policy development process so that alternative courses of action can be thoroughly examined before a proposal is tabled.”*<sup>637</sup>
- 9.9 In determining the impacts of the various regulatory options, current best practice recognises that full cost-benefit analyses should only be carried out where it would be proportionate to do so, or, in exceptional cases, where robust, detailed and independently verifiable data are available. Such a comprehensive review may be undertaken by ComReg when necessary and appropriate.
- 9.10 A RIA should be carried out as early as possible in the assessment of potential regulatory options, where appropriate and feasible. The consideration of regulatory impact facilitates the discussion of options, and a RIA should therefore be integrated into the overall preliminary analysis. This is the approach which ComReg follows in this Consultation and this RIA should be read in conjunction with the overall Consultation. A RIA will be finalised in the final Decision arising from this Consultation, having taken into account responses to this Consultation, and any comments from the European Commission and the CCPC.
- 9.11 ComReg now conducts a RIA having regard to the proposed regulatory remedies set out in Section 8 of this Consultation, along with consideration of other options. The following sections, along with the analysis and discussion set out elsewhere in this Consultation represent a RIA. It sets out a preliminary assessment of the potential impact of regulatory obligations that ComReg proposes to impose on the Proposed SMP Service Providers.

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<sup>636</sup> See paragraph 2.1 of the Revised RIA Guidelines, available online at [http://publicspendingcode.per.gov.ie/wp-content/uploads/2012/07/Revised\\_RIA\\_Guidelines\\_June\\_20091.pdf](http://publicspendingcode.per.gov.ie/wp-content/uploads/2012/07/Revised_RIA_Guidelines_June_20091.pdf).

<sup>637</sup> Communication from the European Commission, “Second strategic review of Better Regulation in the European Union”, COM(2008)32, p.6.

- 9.12 There are similarities in the approaches to regulation of FVCT and MVCT, as well as in the competition problems which ComReg has identified and seeks to remedy. For ease of reference, ComReg carries out a stepwise RIA assessment in respect of, firstly, FVCT and secondly, MVCT. This may lead to repetition of text, where common issues arise across both FVCT and MVCT.
- 9.13 The RIA makes frequent use of terminology describing categories of Service Providers. The table describing these categories is set out below.

**Table 41: Service Provider terminology**

<b>FVCT Service Providers</b>	
<b>Name</b>	<b>Description</b>
2007 SMP FSPs	The 7 FSPs designated with SMP in the 2007 FVCT Decision
2007 Alternative SMP FSPs	The 6 FSPs designated with SMP in the 2007 FVCT Decision, excluding Eircom
Proposed SMP FSPs	The 22 FSPs proposed to be designated with SMP arising from this Consultation
Proposed Alternative SMP FSPs	The 21 FSPs proposed to be designated with SMP, excluding Eircom
Newly Proposed SMP FSPs	The 15 FSPs proposed to be designated with SMP which are not currently so designated
Unregulated FSP	Any FSP offering FVCT not currently designated with SMP
<b>MVCT Service Providers</b>	
2012 SMP MSPs	The 6 MSPs designated with SMP in the 2012 MVCT Decision <sup>638</sup>
Proposed SMP MSPs	The 7 MSPs proposed to be designated with SMP
Newly Proposed SMP MSPs	The 2 MSPs proposed to be designated with SMP which are not currently so designated
Unregulated MSP	Any MSP offering MVCT not currently designated with SMP
<b>Service Providers</b>	
Existing SMP Service Providers	The 2007 SMP FSPs and the 2012 SMP MSPs
Newly Proposed SMP Service Providers	The Newly Proposed SMP FSPs and the Newly Proposed SMP MSPs
Proposed SMP Service Providers	The Proposed SMP FSPs and the Proposed SMP MSPs
Unregulated Service Provider	Unregulated FSPs and Unregulated MSPs

<sup>638</sup> While the 2012 MVCT Decision designated 6 SMP MSPs, this number fell to 5 in 2014, following the merger of two SMP MSPs, Three and O2.

## Principles in selecting remedies

- 9.14 In Section 8<sup>639</sup> ComReg sets out the legislative basis for the imposition of remedies on Service Providers it proposes to designate with SMP in the Relevant Termination Markets. In choosing appropriate remedies, ComReg is obliged, pursuant to Regulation 8(6) of the Access Regulations, to ensure they are:
- (a) Based on the nature of the problem identified;
  - (b) Proportionate and justified in the light of the objectives laid down in section 12 of the Communications Regulation Act 2002 (as amended), and Regulation 16 of the Framework Regulations; and
  - (c) Only imposed following consultation in accordance with Regulations 12 and 13 of the Framework Regulations.
- 9.15 Section 12(1)(a) of the Communications Regulation Act 2002 (as amended) sets out the objectives of ComReg in exercising its functions in relation to the provision of electronic communications networks, services and associated facilities, namely:
- (a) To promote competition;
  - (b) To contribute to the development of the internal market; and
  - (c) To promote the interests of users within the European Union.

## Regulatory Options for Relevant Termination Markets

- 9.16 As far as possible, ComReg conducts this RIA having regard to the analytical similarities which arise in respect of both Relevant FVCT Markets and Relevant MVCT Markets. Accordingly, prior to conducting the stepwise RIA described at 9.5 above, ComReg sets out the four options it considers in terms of the bundles of regulatory obligations which could, in principle, be imposed on Proposed SMP Service Providers on each of the Relevant Termination Markets:
- Option 1:** Impose Transparency and Non-Discrimination obligations;
  - Option 2:** Impose Transparency, Non-Discrimination and Access obligations;
  - Option 3:** Impose Transparency, Non-Discrimination, Access, and Price Control & Cost Accounting obligations; or
  - Option 4:** Impose Transparency, Non-Discrimination, Access, Price Control & Cost Accounting and Accounting Separation obligations.

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<sup>639</sup> See paragraphs 8.2 to 8.7 above.



9.17 Having set out the four potential options for regulation of the Relevant Termination Markets, ComReg sets out below at Table 42 a summary of the impacts on three sets of stakeholders (SMP Service Providers, non-SMP Service Providers who may be actual or potential new entrants to the Relevant Termination Markets, and Consumers) of each of the four Options. As ComReg is proposing to make a finding of SMP, a “do nothing” option is not available to ComReg, as discussed below.

Table 42: Assessment of regulatory bundle options

Option 1: Impose Transparency and Non-Discrimination Obligations		
Impact on Proposed SMP Service Providers	Impact on non-SMP Service Providers	Impact on Consumers
<p>Existing SMP Service Providers would benefit from a reduced regulatory burden, compared to the 2007 FVCT Decision, the 2012 MVCT Decision, and the 2012 Pricing Decision.</p> <p>Increase in regulatory burden for all Newly Proposed SMP Service Providers.</p> <p>Relatively low impact of compliance as termination rates already published in the openair STRPL and non-price terms included in RIO obligation would be those generally pertaining in Service Providers' standard interconnect agreements.</p> <p>Proposed SMP Service Providers would, absent other obligations, have flexibility to charge termination rates above efficient cost and/or obstruct access by existing rivals and/or new entrants in downstream markets. Could facilitate extraction of excessive rents.</p> <p>SMP Service Providers' incentives to innovate (including via retail pricing plans) and increase efficiency may be reduced where termination rates set above efficient cost are paid for by competitors and, in turn, by their customers.</p> <p>Risk of disputes and legal challenges if termination rates set above efficient cost.</p>	<p>Risk that, even though non-discrimination mandated in principle, there would be scope for exploitative and exclusionary practices such as excessive pricing which may, in practice, amount to discrimination. Effective denial of access and/or delaying tactics could <i>inter alia</i> also be invoked to extract excessive termination rates and/or raise rivals' costs.</p> <p>This could also contribute to raising entry barriers for newer or smaller retail market participants. Negative impact on competition increases as retail market share of Proposed SMP Service Providers grow, further increasing the disparity in bargaining power between Service Providers.</p> <p>Termination rates set above efficient cost could limit scope for retail pricing innovation by downstream rivals.</p> <p>Regulatory certainty is reduced given wholesale pricing and access uncertainty. Disputes over termination rates or access could also raise legal and regulatory costs for WVCT customers.</p> <p>Differences in regulatory approach between Ireland and other EU countries (NRAs generally envisage access and price control obligations) and deviations from European Commission guidance could generate legal uncertainty for pan-EU/EEA operators. Inconsistent with EU/EEA harmonisation principles.</p>	<p>Absent effective access and price control obligations, scope for WVCT access to be undermined through <i>inter alia</i> excessive pricing, refusals to supply, delaying tactics, etc. would contribute to reduced scope of retail service (limited interoperability or higher cost service) for end users.</p> <p>If downstream competition is distorted or investments discouraged through termination rates which are above efficient cost, consumers would potentially have reduced service choice, quality and innovation.</p> <p>Where termination rates are set above efficient cost, this could put upward pressure (or slow the rate of any decline) on retail voice prices. Higher wholesale prices would also limit scope for retail pricing innovations, potentially depriving consumers of new and innovative bundles/packages involving voice calls.</p>

<b>Option 2: Impose Transparency, Non-Discrimination, and Access Obligations</b>		
<b>Impact on Proposed SMP Service Providers</b>	<b>Impact on non-SMP Service Providers</b>	<b>Impact on Consumers</b>
<p>Existing SMP Service Providers would benefit from reduced regulatory burden (while an Access obligation would be a new regulatory burden for the 2007 Alternative SMP FSPs, this would be countered by the removal of other existing regulatory obligations).</p> <p>Increased regulatory burden for Newly Proposed SMP Service Providers.</p> <p>There would still be flexibility for Proposed SMP Service Providers to engage in exploitative and exclusionary behaviour in respect of termination rate pricing (leading to potential denial of access). Could facilitate extraction of excessive rents from WVCT and related markets.</p> <p>Proposed SMP Service Providers' incentives to innovate (including via retail pricing plans) and increase efficiency may be reduced where termination rates set above efficient cost are paid for by competitors and, in turn, by their customers.</p> <p>Risk of disputes and legal challenges involving WVCT services due to lack of direct regulatory oversight in respect of Proposed SMP Service Providers' termination rates. Disputes could increase the legal and regulatory costs faced by SMP Service Providers.</p> <p>Relative to Option 1, imposition of a further access obligation would not generate significant incremental burden.</p>	<p>While risk of impeding access to WVCT may be moderated relative to Option 1, effective WVCT access may still be undermined by means of exploitative practices such as excessive termination rate pricing, which could undermine effective access and raise rivals' costs.</p> <p>Where access is provided to downstream competitors on exploitative terms, this could disadvantage existing rivals and distort existing competition in downstream markets by raising their costs.</p> <p>Ineffective access to WVCT (through exploitative or exclusionary termination rates) could raise barriers to entry and expansion for new entrants or smaller participants in downstream markets due to inability to guarantee end-to-end connectivity.</p> <p>Termination rates set above efficient cost raise barriers to entry and expansion for smaller or newer entrants in downstream retail markets. This is because they would likely have traffic outflows to SMP Service Provider subscribers. Excessive termination rate pricing thus results in inefficient cross-subsidies from smaller to larger operators.</p> <p>The Option 1 concerns in respect of product innovation, regulatory uncertainty, disputes over the level of termination rates, and differences in regulatory approach between Ireland and other EU countries also arise in Option 2.</p>	<p>Availability of WVCT access would enable subscribers of fixed and mobile networks to call one another. However, high risk that, even though access mandated in principle, there would be scope for such access to be effectively undermined through excessive pricing.</p> <p>If downstream competition is distorted or investments discouraged through termination rates which are above efficient cost, consumers would potentially have reduced service choice, quality and innovation.</p> <p>Where termination rates are set above efficient cost, this could put upward pressure (or slow the rate of any decline) on retail voice prices. Higher wholesale prices would also limit scope for retail pricing innovations, thereby potentially depriving consumers of new and innovative bundles/packages involving voice calls.</p> <p>While access, transparency and non-discrimination obligations would facilitate interoperability of retail services, scope for WVCT access to be undermined through excessive pricing remains absent effective price control obligations. This would, in turn, contribute to reduced scope of retail service (limited interoperability or higher cost service) for end users.</p>

<b>Option 3: Impose Transparency, Non-Discrimination, Access, and Price Control Obligations</b>		
<b>Impact on Proposed SMP Service Providers</b>	<b>Impact on non-SMP Service Providers</b>	<b>Impact on Consumers</b>
<p>Regulatory burden on Existing SMP Service Providers would be largely similar.</p> <p>In respect of the Access obligation, increased regulatory burden for 2007 Alternative FSP MSPs relative to current situation and relative to Options 1 and 2 above.</p> <p>Existing regulatory burden on Eircom (per the 2007 FVCT Decision) would be lessened, given removal of Accounting Separation obligation.</p> <p>Increase in regulatory burden for all Newly Proposed SMP Service Providers.</p> <p>As Existing SMP Service Providers are currently subject to price control obligations, and Eircom is currently subject to a cost accounting obligation, incremental burden of such obligations on Existing SMP Service Providers is not likely to be significant.</p> <p>Risk of disputes and legal challenges involving termination rates may be eased relative to Options 1 and 2 due to price control obligation.</p> <p>Increasing symmetry of approach to imposition of obligations to all SMP Service Providers promotes regulatory certainty for all. When purchasing WVCT, the SMP Service Providers will also benefit from effective access to WVCT inputs from other suppliers.</p>	<p>Regulating termination rates at efficient cost would reinforce the effectiveness of the access, transparency and non-discrimination obligations, thus reducing risk of competitive distortions in downstream retail markets and potentially lowering barriers to entry/expansion for smaller or new entrant Service Providers.</p> <p>The impact of lower wholesale costs would likely be more significant for smaller and new entrant Service Providers, since a large number of their calls are likely to be off-net. Thus, regulating termination rates at efficient cost would contribute to reducing the impact of any inefficient financial transfers or cross subsidies from smaller to larger Service Providers and thereby contribute to a level playing field between all Service Providers.</p> <p>Greater consistency with EU guidance and other regulatory decisions would promote legal certainty and a more predictable environment for potential investors.</p> <p>Greater certainty that termination rates would be set at efficient cost potentially moderates risk of disputes relative to Options 1 and 2.</p> <p>Regulating termination rates at efficient cost would potentially provide greater scope for retail pricing innovations.</p>	<p>Availability of effective WVCT access would facilitate interoperability of services by enabling subscribers of fixed and mobile networks to call one another.</p> <p>Reduced risk of competitive distortions and more level playing field in downstream markets and greater wholesale pricing certainty helps facilitate retail price and service innovations (e.g. in terms of packages/bundles offered).</p> <p>Reduced risk of excessive termination rates being passed through to end users in form of higher prices relative to Options 1 and 2 above.</p> <p>Potential for discriminatory behaviour due to lack of accounting separation may impact on downstream competition and investment with consequent negative implications in terms of price and service choice over time. However, this may be mitigated by means of the price control obligation of cost orientation.</p>

<b>Option 4: Impose Transparency, Non-Discrimination, Access, Price Control &amp; Cost Accounting, and Accounting Separation Obligations</b>		
<b>Impact on Proposed SMP Service Providers</b>	<b>Impact on non-SMP Service Providers</b>	<b>Impact on Consumers</b>
<p>Regulatory burden on Existing SMP Service Providers would be largely similar, compared to the 2007 FVCT Decision and the 2012 MVCT Decision.</p> <p>Increase in regulatory burden for all Newly Proposed SMP Service Providers.</p> <p>Existing regulatory burden on Eircom (per the 2007 FVCT Decision) would remain.</p> <p>Impacts associated with the proposed price control obligations may be considered in the Separate Pricing Consultation.</p> <p>Such additional accounting obligations help protect against discriminatory and leveraging behaviour. However, potentially exceeds what is necessary to address competition problems identified in Section 7. SMP Service Providers other than Eircom may have lesser ability to leverage across multiple markets and impacts of any leveraging may be less immediate than in the case of Eircom.</p>	<p>General competition / revenue / cost impacts associated with proposed price control for termination rates are as set out for Option 3 above.</p> <p>As set out for Option 3 above, greater consistency with EU guidance and other regulatory decisions would promote legal certainty and a more predictable environment for potential investors.</p> <p>Greater certainty that termination rates would be set at efficient cost, complemented by greater visibility of internal transfers to support non-discrimination obligation, moderates risk of disputes relative to Options 1 and 2. Unclear, however, that Accounting Separation would add further certainty beyond that generated in Option 3.</p> <p>In addition to the impacts identified for Option 3 above, wholesale customers (and thus downstream rivals) would have greater certainty and transparency regarding SMP Service Providers' costs and any potential leveraging practices. However, such wholesale customers would already be somewhat protected against such behaviour under Option 3.</p>	<p>Availability of effective WVCT access would facilitate interoperability of services enabling subscribers of fixed and mobile networks to call one another.</p> <p>Reduced risk of competitive distortions and more level playing field in downstream markets and greater wholesale pricing certainty helps facilitate retail price and service innovations (e.g. in terms of packages/bundles offered).</p> <p>Reduced risk of above-cost termination rates being passed through to end users in form of higher prices relative to other Options.</p> <p>Dynamic competition from Service Providers (facilitated by effective price control and appropriate preventative measures for discriminatory behaviour in respect of the provision of WVCT by SMP Service Providers) should help facilitate ongoing delivery of price and service innovations and choice to end users over time.</p>

## FVCT Regulatory Impact Assessment

### Step 1: Describe the policy issue and identify the objectives in respect of FVCT

- 9.18 The European Commission acknowledges the need for the imposition of *ex ante* regulatory obligations to mitigate the potentially abusive exercise of market power by SMP Service Providers, and to ensure the development of effective competition within and across communications markets. ComReg has noted in paragraph 5.4 that the European Commission has established that FVCT markets are susceptible to *ex ante* regulation, which ultimately forms the basis for the assessment set out in this Consultation.
- 9.19 In this Consultation, ComReg has set out its analysis and preliminary views on Relevant FVCT Markets. In doing so, its policy objectives are to identify whether or not any FSP operating in the Relevant FVCT Markets has SMP, whether competition concerns arise and, if so, how best to address these. This includes the following:
- (a) In Section 5 ComReg set out its preliminary views on the definition of the Relevant FVCT Markets, with this setting the boundary within which competition would be assessed;
  - (b) In Section 6 ComReg carried out competition assessments and set out its preliminary view that each of the Relevant FVCT Markets are not effectively competitive. ComReg proposes to designate 22 FSPs with SMP in each of their individual Relevant FVCT Markets;
  - (c) In Section 7 ComReg assessed the ability and incentives of the Proposed SMP FSPs to engage in various anti-competitive conducts to the ultimate detriment of competition and consumers; and
  - (d) In Section 8 ComReg set out proposals to address these identified competition problems, and justifies proportionate remedies it proposes to impose on the Proposed SMP FSPs.
- 9.20 As noted in Section 8, in order to address identified competition problems, ComReg is required to impose on SMP FSPs such of those obligations set out below, as it deems appropriate:
- (a) Transparency;
  - (b) Non-Discrimination;
  - (c) Access;
  - (d) Price Control and Cost Accounting; and
  - (e) Accounting Separation.
- 9.21 As also noted in paragraph 1.23, ComReg is required to impose at least one of the above obligations on those Service Providers which it proposes to designate with SMP.

- 9.22 Having regard to the competition problems identified in Section 7, ComReg's objectives are to mitigate the effects of market power in Relevant FVCT Markets and the impacts on related markets. In so doing, ComReg aims to prevent the emergence of restrictions or distortions in competition among Service Providers, to the ultimate benefit of consumers. ComReg also seeks to provide regulatory certainty to all Service Providers through the development of an effective and efficient forward-looking regulatory regime that serves to promote competition between Service Providers. These objectives also serve to further the development of the internal market, given that many Service Providers operate in other EEA Member States, and given that FVCT is an input to calls originating in EEA countries, but destined for Irish fixed voice subscribers.<sup>640</sup>
- 9.23 In pursuing these objectives, ComReg aims to influence the behaviour of Proposed SMP FSPs to mitigate the potential harmful effects that can arise from the exercise of SMP in the Relevant FVCT Markets. In this regard, ComReg considers that the regulatory measures proposed in Section 8 should address, in a proportionate way, the relevant competition problems and the consequential impacts on competition and consumers.
- 9.24 In Section 8, ComReg considered the impact of the specific nature of the regulatory obligations considered necessary in the Relevant FVCT Markets, and formed the preliminary view that the range of remedies specified is both appropriate and justified in light of the analysis set out in Section 7. The various regulatory options for the Relevant FVCT Markets are, in the context of the RIA, further considered below.

## **Step 2: Identify & describe potential regulatory options in the Relevant FVCT Markets**

- 9.25 ComReg recognises that regulatory measures should be kept to the minimum necessary to address identified market failures in an effective, efficient and proportionate manner. A range of regulatory options is available to ComReg to address competition concerns in the Relevant FVCT Markets.
- 9.26 In this regard, regulation should be incremental, such that only those obligations are imposed which are necessary and proportionate to address the identified competition problems, as set out in Regulations 9 to 13 of the Access Regulations. For example, the lightest measure that can be imposed is the obligation of transparency. Should this be insufficient to address competition problems on its own, ComReg may apply a non-discrimination obligation. If this is still not sufficient, ComReg may next consider the imposition of an access obligation, or price controls, with accounting separation obligations potentially required where price control obligations are imposed.

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<sup>640</sup> The same holds true for Irish Service Providers terminating calls to subscribers in EEA countries.

- 9.27 ComReg first considers whether it is appropriate to forbear from imposing regulatory obligations. ComReg then assesses what regulatory options are available and appropriate in respect of the Relevant FVCT Markets.

### **Forbearance on Relevant FVCT Markets**

- 9.28 By means of forbearance, a regulator may decide not to impose regulatory obligations on a FSP designated with SMP.
- 9.29 As set out in Section 6, ComReg is of the preliminary view that none of the Relevant FVCT Markets are effectively competitive, nor are they likely to become effectively competitive within the timeframe covered by this market review. Therefore, in accordance with Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations, ComReg is required to impose at least some level of regulation on the Proposed SMP FSPs.
- 9.30 In Section 7, ComReg set out its preliminary view that, absent regulation, such FSPs have the ability and incentives to engage in a range of exploitative and exclusionary behaviours. ComReg is of the preliminary view that, absent the imposition of remedies within the Relevant FVCT Markets, these markets would not function effectively, ultimately to the detriment of downstream competition and consumers.
- 9.31 In the context of interconnect negotiations between Service Providers, access could, for instance, be effectively refused or materially delayed. This could result in certain consumers being unable to contact the subscribers of particular FSPs, or having to incur the additional costs of their Service Providers interconnecting indirectly via a transit provider.
- 9.32 Furthermore, FTRs could be set above the level that would pertain in competitive markets and a Proposed SMP FSP could be in a position to distort competition in adjacent or downstream markets by obstructing (through price or non-price means) effective access to FVCT.
- 9.33 Consequently, ComReg is of the preliminary view that the option of regulatory forbearance in the Relevant FVCT Markets is not appropriate or justified. ComReg would fail to fulfil its statutory obligations if it did not impose regulatory obligations on Proposed SMP FSPs.



## Regulatory Options on Obligations in the Relevant FVCT Markets

### FVCT Transparency Obligations

- 9.34 ComReg's preliminary view, set out in Section 8, is that, due to the ability and incentives of Proposed SMP FSPs to engage in the identified anti-competitive behaviours, transparency obligations<sup>641</sup> are necessary to facilitate the development of effective downstream competition. ComReg has specified transparency remedies including requirements to publish a RIO setting out contractual terms and conditions, and the technical basis upon which Service Providers can obtain access to FVCT and associated facilities, along with requirements to publish FTRs and provide advance notification of changes to them. Additionally, in paragraph 8.43, ComReg has specified transparency obligations for Eircom only, requiring it to publish detailed documentation relating to Wholesale SV Services.
- 9.35 ComReg considers that each Proposed SMP FSP should be required to comply with these transparency obligations in order to minimise information asymmetries and, therefore, facilitate timely and efficient access to FVCT and associated facilities. It is envisaged that these obligations will promote effective competition in downstream markets.
- 9.36 As set out in Sections 7 and 8, ComReg does not consider that transparency obligations, in isolation, will sufficiently address the competition problems in the Relevant FVCT Markets. For example, transparency obligations do not directly address concerns regarding denial of access, discrimination (on price or non-price grounds) or excessive pricing.

### FVCT Non-Discrimination Obligations

- 9.37 Having reviewed competition problems with respect to the Relevant FVCT Markets in Section 7, ComReg set out its preliminary view in Section 8 that non-discrimination obligations were necessary to ensure that Service Providers being provided with FVCT are treated in an equivalent manner.<sup>642</sup> These obligations would also ensure that Service Providers are provided with information and services in a manner consistent with that which the Proposed SMP FSP provides to itself.

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<sup>641</sup> See paragraphs 8.29 to 8.47 above.

<sup>642</sup> See paragraphs 8.48 to 8.60 for proposed non-discrimination remedies in the Relevant FVCT Markets.

- 9.38 Such non-discrimination obligations are designed to promote pro-competitive behaviours in the Relevant FVCT Market, by requiring equivalent treatment of Service Providers (with the transparency obligation providing a means of observing that discrimination is not occurring). In view of potential issues of discriminatory treatment (on price or non-price terms), transparency obligations alone would not address such issues. Furthermore, a non-discrimination obligation itself (or coupled with transparency) does not specifically address what type of product or service should be offered, or how it should be priced.
- 9.39 Thus, the operation of the non-discrimination and transparency obligations alone are not considered by ComReg to be sufficiently adequate in providing a means of ensuring *ex ante* that Proposed SMP FSPs provide access to FVCT and associated facilities, or providing access in a fair, reasonable and timely manner.

### **FVCT Access Obligations**

- 9.40 Having reviewed the competition problems identified in Section 7, ComReg set out its preliminary view in Section 8 that access obligations are necessary to prevent the actual denial of, or effective refusal to provide, access to FVCT and associated facilities.<sup>643</sup> Transparency and non-discrimination obligations are necessary supporting obligations, but ComReg holds the preliminary view that such obligations alone are incapable of effectively addressing access issues.
- 9.41 ComReg's preliminary view is that obligations to provide FVCT and access to associated facilities (including physical interconnect infrastructure necessary for effecting such access, e.g. Interconnection Services in the case of Eircom) are both proportionate and justified. An access obligation on all Proposed SMP FSPs will promote regulatory predictability and ensure that FSPs are treated in a consistent fashion. ComReg sees no objective reason to distinguish its approach for alternative FSPs from the approach which applies to Eircom (with respect to the core access obligations), particularly given that broadly the same competition problem has been identified in each case.
- 9.42 ComReg is of the preliminary view that the specified access obligations are fundamental requirements in the Relevant FVCT Markets and, taking account of the provisions of Regulation 12(1) of the Access Regulations, the absence of such obligations would hinder the development of effectively competitive retail markets by restricting or distorting competition among Service Providers, to the detriment of consumers.

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<sup>643</sup> See paragraphs 8.61 to 8.96 for proposed access remedies in the Relevant FVCT Markets.

- 9.43 These access obligations are therefore considered necessary and appropriate in achieving the objectives of Section 12 of the Communications Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations, namely the promotion of competition, contributing to the development of the internal market and protecting the interests of end users.

### **FVCT Price Control and Cost Accounting Obligations**

- 9.44 Having identified competition problems with respect to the Relevant FVCT Markets in Section 7, ComReg set out its preliminary view in Section 8 that wholesale charges for access to FVCT and associated facilities should be subject to price control obligations and, in the case of Eircom, a further cost accounting obligation.<sup>644</sup>
- 9.45 ComReg proposes that each Proposed SMP FSP be subject to a price control obligation of cost orientation with respect to access to FVCT and associated facilities. ComReg's analysis in Sections 7 and 8 indicates that each of the Proposed SMP FSPs has the ability and incentive to engage in excessive pricing, absent regulation.<sup>645</sup> ComReg thus sees no objective reason to distinguish its approach to price control amongst such FSPs, particularly given that the same competition problem – exploitative conduct by means of excessive pricing - has been identified in each case. Imposing a cost orientation obligation on all Proposed SMP FSPs will provide regulatory certainty to each party, as well as to buyers of FVCT who purchase this service from several FSPs. In doing so, it will also minimise the scope for disputes and potentially inefficient case-by-case regulation through dispute resolution or other activities.
- 9.46 If specific price control obligations are to be meaningful, it is necessary to have a clear and comprehensive understanding of the costs associated with the provision of FVCT by a Proposed SMP FSP. ComReg proposes to continue to impose a cost accounting obligation on Eircom, having regard to its integrated position across several upstream and downstream markets and, in particular, noting its SMP designations in a number of these markets. ComReg does not consider it appropriate or proportionate to impose a cost accounting obligation on any Proposed SMP FSP other than Eircom at this stage, although it proposes to keep the situation under review in case it becomes necessary to effect the price control obligation.

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<sup>644</sup> See paragraphs 8.98 to 8.173 for proposed price control and cost accounting remedies in the Relevant FVCT Markets.

<sup>645</sup> Data from the STRPL demonstrate that only two Unregulated FSPs price at the regulated level. The next cheapest FTR is more than 4 times higher than the regulated rate.

### **FVCT Accounting Separation Obligations**

9.47 ComReg set out its preliminary view in Section 8 that the imposition of an accounting separation obligation on any Proposed SMP FSP at this stage may be excessive, burdensome and costly for Proposed SMP FSPs to comply with (having regard to the other proposed obligations and the nature of the competition problems identified).<sup>646</sup>

### **Step 3: Determine the Impacts on FVCT Stakeholders**

9.48 Given the proposal to designate 22 FSPs with SMP, it is ComReg's preliminary view, as outlined at paragraphs 9.28 to 9.33 above, that the option of regulatory forbearance is not appropriate or justified, and should be discounted when considering the impact on stakeholders.

9.49 Having regard to the proposed SMP designations in Section 6, ComReg is required to impose at least some level of regulation.<sup>647</sup> In its review of competition problems identified in Section 7 and proposed remedies in Section 8 respectively, ComReg has, on an incremental basis, set out its preliminary view that a range of remedies is necessary, proportionate and justified, while at the same time discounting other remedies, where appropriate.

9.50 The 2007 FVCT Decision and 2012 Pricing Decision imposed a range of regulatory obligations on Eircom, and ComReg proposes to impose a broadly similar suite of regulatory obligations on Eircom (save for the proposal to no longer impose an Accounting Separation obligation). Accordingly, it faces a largely unchanged level of compliance burden arising from the obligations which ComReg proposes to impose on it.

9.51 The 2007 Alternative SMP FSPs are already subject to a range of SMP regulatory obligations, some of which remain largely unchanged, and some of which ComReg proposes to alter. For example, in respect of the transparency obligation, those FSPs are currently subject only to a general obligation to publish their prices and associated terms and conditions for FVCT access, and ComReg considers that publishing a RIO and FTRs does not, in ComReg's view, place an undue incremental burden on these FSPs.

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<sup>646</sup> See paragraphs 8.174 to 8.183 for the discussion of proposed accounting separation remedies in the Relevant FVCT Markets.

<sup>647</sup> Pursuant to Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations.

- 9.52 The 15 Newly Proposed SMP FSPs<sup>648</sup> have not had any SMP obligations imposed on them to date. ComReg recognises that the imposition of SMP remedies will impose a greater burden on these FSPs than has been the case to date. However, ComReg is of the view that the remedies which it proposes to impose are necessary and proportionate, and amount to the minimum level of regulation required to promote competition and protect consumers.
- 9.53 In respect of the proposed transparency obligations, ComReg considers that the implementation of an obligation on all Proposed SMP FSPs to make FTRs publicly available would not place a disproportionate burden on them. ComReg recognises that the initial implementation of the RIO obligation will likely be more burdensome for the Proposed Alternative SMP FSPs. Consequently, ComReg proposes that, for these FSPs, the RIO be published within 90 calendar days following the effective date of ComReg's decision on this FVCT market analysis.
- 9.54 While the Newly Proposed SMP FSPs have not been subject to any SMP regulatory obligations to date, broadly the same competition problems have been identified in respect of these FSPs and, thus, ComReg sees no objective reason to differentiate the obligations in respect of these FSPs, except in the case of those distinctions already set out in respect of Eircom.
- 9.55 Eircom currently has an obligation of non-discrimination with respect to the provision of wholesale access products, features and additional associated facilities. The Alternative 2007 SMP FSPs have, to date, had an obligation to apply similar terms and conditions to undertakings that obtain, or seek to obtain, from them FVCT services, products, and facilities. The Newly Proposed SMP FSPs are not currently subject to any non-discrimination obligations.
- 9.56 In view of the issues identified in Section 7, ComReg considers it objectively justified to adopt the same approach with respect to non-discrimination obligations for all the Proposed SMP FSPs.

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<sup>648</sup> Vodafone Ireland; PlanNet 21 Communications; Airspeed Communications; Imagine Communications Ireland; Telcom; In2com; Finarea SA; Viatel Ireland; Blueface; Modeva Networks; Equant Network Services International; Dialoga Servicios Interactivos, SA; Intellicom Ireland; Magrathea Telecommunications; and Voxbone SA.

- 9.57 Having regard to the analysis of the Relevant FVCT Markets, and the three different categories of FSP which ComReg has set out above (Eircom, the 2007 Alternative SMP FSPs, and the Newly Proposed SMP FSPs), ComReg is of the preliminary view that, in each case, the proposed remedies are necessary and proportionate, and are restricted to the minimum regulatory burden necessary to ensure that FSPs which have the ability and incentive to use their SMP for exclusionary or exploitative purposes are dissuaded or prevented from doing so. ComReg has now grouped remedies into four options set out at Table 42 above for the purpose of considering the incremental impact of each option on SMP Service Providers, non-SMP Service Providers, and Consumers.

#### **Step 4: Determine the Impacts on Competition in the Provision of FVCT**

- 9.58 ComReg's preliminary view is that, absent regulation, Proposed SMP FSPs have the ability and incentive to engage in exploitative and exclusionary behaviours likely to impact on competition and consumers. In Section 7, ComReg provided examples of potential competition problems and their impacts on competition and consumers.<sup>649</sup> ComReg has also highlighted its objectives in regulating the Relevant FVCT Markets in paragraph 1.11 above, including preventing the restriction or distortion of competition in affected downstream markets and helping to ensure that consumers can achieve maximum benefits in terms of price, choice and quality of service.
- 9.59 The imposition of appropriate *ex ante* remedies to address such competition problems is set out in Section 8, with each of the remedies designed to promote the development of effective competition to the benefit of consumers. Remedies are to be applied consistently across all Proposed SMP FSPs in order to address the identified impacts of competition problems, and will ultimately benefit Service Providers by allowing them to compete fairly at the retail level.

#### **Step 5: Assess Likely Impacts and Choose Best Option in respect of FVCT**

- 9.60 In its proposed approach to remedies in this Consultation, ComReg has taken full account of its obligations under Regulation 8(6) of the Access Regulations, as well as its relevant objectives as set out under Section 12 of the Communications Regulation Act 2002 (as amended).

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<sup>649</sup> See discussion in paragraphs 7.84 to 7.94 above.

- 9.61 ComReg's preliminary view is that, absent regulation, Proposed SMP FSPs have the ability and incentive to engage in exploitative and exclusionary behaviours which would impact on competition and consumers. In Section 7, ComReg provided examples of potential competition problems and their impact on competition and, ultimately, consumers.
- 9.62 Based on its assessment above and throughout this Consultation, and having considered the impacts on stakeholders and competition, including the impact on the development of competition within the internal market, it is ComReg's preliminary view that **Option 3** represents the most justified, reasonable and proportionate of the approaches to regulation of the Relevant FVCT Markets.
- 9.63 The imposition of appropriate *ex ante* remedies to address competition problems was discussed and justified in Section 8 (Remedies), and each of the specific remedies is designed to promote the development of effective competition and protect end users. ComReg proposes to apply a suite of remedies to Eircom (with the exception of Accounting Separation), and a broadly consistent set of remedies (with the exception of Accounting Separation and Cost Accounting), on all other Alternative Proposed SMP FSPs. Accordingly, ComReg is of the view that the risk of competition problems and associated impacts resulting from SMP positions in the Relevant FVCT Markets should be minimised. This will ultimately be to the benefit of Service Providers and end users of downstream retail services.
- 9.64 The proposed regulatory obligations do not unduly discriminate against Proposed SMP FSPs in that, the obligations are proposed to address specific competition problems, and are proportionate, in that they are the least burdensome means of achieving this objective.
- 9.65 ComReg considers that it has met its transparency obligations by setting out the remedies which it proposes to impose on the Proposed SMP FSPs, outlining the justification for the proposed obligations, and issuing a detailed and reasoned public consultation on these matters.

## MVCT Regulatory Impact Assessment

### Step 1: Describe the policy issue and identify the objectives in respect of MVCT

- 9.66 The European Commission acknowledges the need for the imposition of *ex ante* regulatory obligations to mitigate the potentially abusive exercise of market power by SMP Service Providers, and to ensure the development of effective competition within and across communications markets. ComReg has noted in paragraph 5.159 that the European Commission has established that MVCT markets are susceptible to *ex ante* regulation, which ultimately forms the basis for the assessment set out in this Consultation.

- 9.67 In this Consultation, ComReg has set out its analysis and preliminary views on Relevant MVCT Markets. In doing so, its policy objectives are to identify whether or not any MSP operating in the Relevant MVCT Markets has SMP, whether competition concerns arise and, if so, how best to address these. This includes the following:
- (a) In Section 5 ComReg set out its preliminary views on the definition of the Relevant MVCT Markets, with this setting the boundary within which competition would be assessed;
  - (b) In Section 6 ComReg carried out competition assessments and set out its preliminary view that each of the Relevant MVCT Markets are not effectively competitive. ComReg proposes to designate 7 MSPs with SMP in each of their individual Relevant MVCT Markets;
  - (c) In Section 7 ComReg assessed the ability and incentives of the Proposed SMP MSPs to engage in various anti-competitive conducts to the ultimate detriment of competition and consumers; and
  - (d) In Section 8 ComReg set out proposals to address these identified competition problems, and justifies proportionate remedies it proposes to impose on the Proposed SMP MSPs.
- 9.68 As noted in Section 8, in order to address identified competition problems, ComReg is required to impose on SMP MSPs such of those obligations set out below, as it deems appropriate:
- (a) Transparency;
  - (b) Non-Discrimination;
  - (c) Access;
  - (d) Price Control and Cost Accounting; and
  - (e) Accounting Separation.
- 9.69 As also noted in paragraph 1.23, ComReg is required to impose at least one of the above obligations on those Service Providers which it proposes to designate with SMP.



- 9.70 Having regard to the competition problems identified in Section 7, ComReg's objectives are to mitigate the effects of market power in Relevant MVCT Markets and the impacts on related markets. In so doing, ComReg aims to prevent the emergence of restrictions or distortions in competition among Service Providers, to the ultimate benefit of consumers. ComReg also seeks to provide regulatory certainty to all Service Providers through the development of an effective and efficient forward-looking regulatory regime that serves to promote competition between Service Providers. These objectives also serve to further the development of the internal market, given that many Service Providers operate in other EEA Member States, and given that MVCT is an input to calls originating in EEA countries, but destined for Irish mobile subscribers.<sup>650</sup>
- 9.71 In pursuing these objectives, ComReg aims to influence the behaviour of Proposed SMP MSPs to mitigate the potential harmful effects that can arise from the exercise of SMP in the Relevant MVCT Markets. In this regard, ComReg considers that the regulatory measures proposed in Section 8 should address, in a proportionate way, the relevant competition problems and the consequential impacts on competition and consumers.
- 9.72 In Section 8, ComReg considered the impact of the specific nature of the regulatory obligations considered necessary in the Relevant MVCT Markets, and formed the preliminary view that the range of remedies specified is both appropriate and justified in light of the analysis set out in Section 7. The various regulatory options for the Relevant MVCT Markets are, in the context of the RIA, further considered below.

## **Step 2: Identify & describe potential regulatory options in the Relevant MVCT Markets**

- 9.73 ComReg recognises that regulatory measures should be kept to the minimum necessary to address identified market failures in an effective, efficient and proportionate manner. A range of regulatory options is available to ComReg to address competition concerns in the Relevant MVCT Markets.

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<sup>650</sup> The same holds true for Irish Service Providers terminating calls to subscribers in EEA countries.

- 9.74 In this regard, regulation should be incremental, such that only those obligations are imposed which are necessary and proportionate to address the identified competition problems, as set out in Regulations 9 to 13 of the Access Regulations. For example, the lightest measure that can be imposed is the obligation of transparency. Should this be insufficient to address competition problems on its own, ComReg may apply a non-discrimination obligation. If this is still not sufficient, ComReg may next consider the imposition of an access obligation, or price controls, with accounting separation obligations potentially required where price control obligations are imposed.
- 9.75 ComReg first considers whether it is appropriate to forbear from imposing regulatory obligations. ComReg then assesses what regulatory options are available and appropriate in respect of the Relevant FVCT Markets.

### **Forbearance on Relevant MVCT Markets**

- 9.76 By means of forbearance, a regulator may decide not to impose regulatory obligations on a MSP designated with SMP.
- 9.77 As set out in Section 6, ComReg is of the preliminary view that none of the Relevant MVCT Markets are effectively competitive, nor are they likely to become effectively competitive within the timeframe covered by this market review. Therefore, in accordance with Regulation 8(1) of the Access Regulations and Regulation 27(4) of the Framework Regulations, ComReg is required to impose at least some level of regulation on the Proposed SMP MSPs.
- 9.78 In Section 7, ComReg set out its preliminary view that, absent regulation, such MSPs have the ability and incentives to engage in a range of exploitative and exclusionary behaviours. ComReg is of the preliminary view that, absent the imposition of remedies within the Relevant MVCT Markets, these markets would not function effectively, ultimately to the detriment of downstream competition and consumers.
- 9.79 In the context of interconnect negotiations between Service Providers, access could, for instance, be effectively refused or materially delayed. This could result in certain consumers being unable to contact the subscribers of particular MSPs, or having to incur the additional costs of their Service Providers interconnecting indirectly via a transit provider.
- 9.80 Furthermore, MTRs could be set above the level that would pertain in competitive markets and a Proposed SMP MSP could be in a position to distort competition in adjacent or downstream markets by obstructing (through price or non-price means) effective access to MVCT.

- 9.81 Consequently, ComReg is of the preliminary view that the option of regulatory forbearance in the Relevant MVCT Markets is not appropriate or justified. ComReg would fail to fulfil its statutory obligations if it did not impose regulatory obligations on Proposed SMP MSPs.

## **Regulatory Options on Obligations in the Relevant MVCT Markets**

### **MVCT Transparency Obligations**

- 9.82 ComReg's preliminary view, set out in Section 8 is that, due to the abilities and incentives of Proposed SMP MSPs, a transparency obligation<sup>651</sup> is necessary and would facilitate the development of effective downstream competition. ComReg has therefore specified transparency remedies involving requirements to publish a RIO setting out the contractual terms and conditions, and technical basis upon which Service Providers can obtain access to MVCT and associated facilities. ComReg has also specified requirements to publish MTRs and provide advance notice of changes to them not less than 30 calendar days in advance of the date on which any such amendment comes into effect.
- 9.83 ComReg considers that each Proposed SMP MSP should be required to comply with transparency obligations in order to minimise information asymmetries and, therefore, facilitate timely and efficient access to MVCT and associated facilities. It is also envisaged that this obligation will promote effective competition in downstream markets.
- 9.84 ComReg does not, however, consider that transparency obligations, in isolation, will sufficiently address potential competition problems in the Relevant MVCT Markets, as set out in Section 7. For example, problems associated with denial of access, discrimination and excessive pricing could still occur.

### **MVCT Non-Discrimination Obligations**

- 9.85 Having reviewed competition problems with respect to the Relevant MVCT Markets in Section 7, ComReg sets out its preliminary view in Section 8<sup>652</sup> that non-discrimination obligations are necessary to ensure that Service Providers being provided with MVCT are not treated differently where circumstances do not warrant this differential treatment. These obligations would also ensure that Service Providers are provided with information and service in a manner consistent with that which the Proposed SMP MSP provides to itself.

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<sup>651</sup> Please see paragraphs 8.214 to 8.227.

<sup>652</sup> See paragraphs 8.228 to 8.235.

- 9.86 Non-discrimination obligations are designed to ensure equivalent treatment of Service Providers, and the obligations proposed to be implemented are specified in paragraphs 8.228 to 8.235. However, in view of the potential scope for discriminatory treatment, via price or non-price terms, ComReg's preliminary view is that transparency obligations alone are not sufficient to address these issues. Furthermore, non-discrimination obligations (with or without a transparency obligation) do not specifically address the issues associated with denial of access or excessive pricing.
- 9.87 Therefore, non-discrimination obligations, coupled with transparency obligations, are not considered by ComReg to provide a sufficient means of addressing the competition problems identified in Section 7.

### **MVCT Access Obligations**

- 9.88 Having reviewed competition problems with respect to the Relevant MVCT Markets in Section 7, ComReg set out its preliminary view in Section 8 that access obligations are necessary to prevent the actual denial of, or effective refusal to provide access to, MVCT and associated facilities.
- 9.89 Access obligations give Service Providers the right to request access to MVCT and associated facilities and establish the principles on which such access should be granted. ComReg has specified the need for access remedies relating to the provision of access to MVCT and associated facilities, and to provide such access in a fair, timely and reasonable manner.
- 9.90 ComReg is of the preliminary view that the specified access obligations are a fundamental requirement in the Relevant MVCT Markets and, taking account of the provisions of Regulation 12(1) of the Access Regulations, the absence of such obligations would hinder the development of effectively competitive retail markets by restricting or distorting competition among Service Providers, to the ultimate detriment of consumers.
- 9.91 These access obligations are therefore considered necessary and appropriate in achieving the objectives of Section 12 of the Communications Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations, namely the promotion of competition, contributing to the development of the internal market and protecting the interests of end users.

### **MVCT Price Control Obligations**

- 9.92 Having reviewed competition problems with respect to the Relevant MVCT Markets in Section 7, ComReg set out its preliminary view in Section 8 that wholesale charges for access to MVCT and associated facilities should be subject to price control obligations. As set out at paragraphs 8.265 to 8.268 above, ComReg proposes to implement a price control obligation of cost orientation, in preference to other price control methodologies.

- 9.93 ComReg is of the preliminary view that access to MVCT and associated facilities should be subject to a price control obligation of cost orientation. The specific costing methodology to be adopted in light of the cost orientation obligation is discussed and considered in the Separate Pricing Consultation.
- 9.94 MTRs are an important consideration in the price of calls and other charges. Accordingly, setting MTRs *ex ante* also has the benefit of providing advance certainty for Service Providers when setting retail prices.
- 9.95 With respect to cost accounting obligations, ComReg is of the preliminary view that a regulatory remedy of this nature is not necessary in the presence of an appropriately specified and implemented cost orientation obligation. In this regard, ComReg is of the preliminary view that Proposed SMP MSPs should nonetheless be in a position to demonstrate that their charges are reflective of costs.

### **MVCT Accounting Separation Obligations**

- 9.96 ComReg set out its preliminary view in Section 8 that the imposition of accounting separation remedies may, having regard to the nature of the price control obligations, be unnecessary.

## **Step 3: Determine the Impacts on MVCT Stakeholders**

- 9.97 Given the proposal to continue to regulate the 2012 SMP MSPs,<sup>653</sup> and to regulate the Newly Proposed SMP MSPs<sup>654</sup> for the first time, it is ComReg's view that the option of regulatory forbearance is unwarranted and should be discounted when considering the impact on stakeholders.
- 9.98 The 2012 SMP MSPs are already subject to a range of SMP regulatory obligations, which remain largely unchanged.
- 9.99 The two Newly Proposed SMP MSPs have not had any SMP obligations imposed on them to date. ComReg recognises that the imposition of SMP remedies will impose a greater burden on these MSPs than has been the case to date. However, ComReg is of the view that the remedies which it proposes to impose are necessary and proportionate, and amount to the minimum level of regulation required to promote competition and protect consumers.

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<sup>653</sup> Vodafone, eir Mobile, Three, Lycamobile and Tesco Mobile.

<sup>654</sup> Virgin Media and iD Mobile.

- 9.100 In respect of the proposed transparency obligation, ComReg considers that the implementation of an obligation on all Proposed SMP MSPs to make MTRs publicly available would not place a disproportionate burden on them. ComReg recognises that the initial implementation of the RIO obligation will likely be more burdensome for the Newly Proposed SMP MSPs. Consequently, ComReg proposes that, for these MSPs, the RIO be published within 90 calendar days following the effective date of ComReg's decision on this MVCT market analysis.
- 9.101 While the Newly Proposed SMP MSPs have not been subject to any SMP regulatory obligations to date, broadly the same competition problems have been identified in respect of these MSPs and, thus, ComReg sees no objective reason to differentiate the obligations in respect of these MSPs.
- 9.102 The 2012 SMP MSPs have, to date, had an obligation to apply similar terms and conditions to undertakings that obtain, or seek to obtain, from them MVCT services, products, and facilities. The Newly Proposed SMP FSPs are not currently subject to any non-discrimination obligations.
- 9.103 In view of the issues identified in Section 7, ComReg considers it objectively justified to adopt the same approach with respect to non-discrimination obligations for all the Proposed SMP MSPs.
- 9.104 Having regard to the discussion in paragraphs 8.1 to 8.11 above and the approach to competition problems and remedies in Section 7 and Section 8 respectively, ComReg has, on an incremental basis, concluded that a range of appropriate remedies is necessary, proportionate and justified, while at the same time discounting other remedies. Having regard to the analysis of the Relevant MVCT Markets, ComReg grouped remedies into four options for the purpose of considering the incremental impact of each option on stakeholders (SMP Service Providers, non-SMP Service Providers, and Consumers), as set out in Table 42 above.
- 9.105 As set out at paragraph 9.16, given the similarities in market structures and competitive dynamics in the provision of both FVCT and MVCT services, Table 42 assesses the impact of each option across both Relevant MVCT Markets and Relevant FVCT Markets. The analysis set out in the table applies equally to the consideration of appropriate regulatory options for the Relevant MVCT Markets.

## Step 4: Determine the Impacts on Competition in the provision of MVCT

- 9.106 ComReg's preliminary view is that, absent regulation, Proposed SMP MSPs would have the ability and incentive to engage in exploitative and exclusionary behaviours which would impact on competition and consumers. In Section 7, ComReg provided examples of potential competition problems and the impact of these on competition and consumers.<sup>655</sup> ComReg has also highlighted its objectives in regulating the Relevant MVCT Markets in paragraph 1.11 above, in particular, preventing the restriction or distortion of competition in affected downstream markets.
- 9.107 The imposition of appropriate *ex ante* remedies to address such competition problems was discussed and justified in Section 8, with each of the specific remedies designed to promote the development of effective competition. Remedies are to be applied consistently across all MSPs, address the identified impacts of competition problems associated with MSPs having SMP in the Relevant MVCT Markets. This approach will ultimately benefit Service Providers by allowing them to compete fairly at the retail level.

## Step 5: Assess Likely Impacts and Choose Best Option in respect of MVCT

- 9.108 In the discussion on its proposed approach to remedies throughout this Consultation, ComReg has taken full account of its obligations under Regulation 8(6) of the Access Regulations, as well as its relevant objectives as set out under section 12 of the Communications Regulation Act 2002 (as amended).
- 9.109 ComReg has provisionally proposed to impose a range of specific regulatory obligations on Proposed SMP MSPs and, in so doing, has assessed the impact on stakeholders and competition not only in this Section, but throughout this Consultation.
- 9.110 Based on its assessment as set out in Table 42 above, and having considered the impacts on stakeholders and competition, including the impact on the development of competition within the internal market, it is ComReg's preliminary view that **Option 3** represents the most justified, reasonable and proportionate of the approaches to regulation within the Relevant MVCT Markets.

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<sup>655</sup> See discussion in paragraphs 7.95 to 7.101 above.

9.111 Overall, the regulatory obligations chosen do not unduly discriminate against any one particular MSP, in that they are imposed symmetrically, and this should provide regulatory certainty and ensure fairer and more balanced retail competition amongst Service Providers purchasing MVCT.

9.112 ComReg considers that it has met the requirement to be transparent in its approach by setting out proposed remedies, by providing the justification for such proposed remedies, and by issuing a detailed and reasoned public consultation on these matters.

**Q. 15. Do you agree with ComReg's preliminary conclusions on the Regulatory Impact Assessment, in respect of FVCT? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your position.**

**Q. 16. Do you agree with ComReg's preliminary conclusions on the Regulatory Impact Assessment, in respect of MVCT? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your position.**



## 10 Next Steps

- 10.1 The consultation period will run to 5.30pm on January 10<sup>th</sup>, 2018, providing an 11 week consultation period. ComReg encourages interested parties to comment on the issues set out in this Consultation.
- 10.2 As noted in this Consultation, a Separate Pricing Consultation in relation to the detailed nature of the price control obligations in the Relevant Termination Markets will be published in Q4 2017. ComReg's intention is that there will be an overlap in the consultation periods set out in this Consultation and the Separate Pricing Consultation.
- 10.3 The task of analysing responses received will be made easier if all comments are referenced to the specific question numbers as set out previously in this document.<sup>656</sup>
- 10.4 Having analysed and considered the comments received, ComReg will review the proposals set out in this Consultation, consult with the CCPC, and maintain or amend its proposals, as appropriate, including with respect to the draft measures set out in the draft Decision Instruments.
- 10.5 ComReg will then notify these final draft measures to the European Commission, other NRAs and BEREC, pursuant to Regulation 13 of the Framework Regulations. Taking utmost account of any comments received from the European Commission as well as from the other aforementioned parties, ComReg will then seek to adopt and publish the final decision in its subsequent Response to Consultation and Decision.
- 10.6 In order to promote further openness and transparency, ComReg will publish all responses to this Consultation, subject to the provisions of ComReg's guidelines on the treatment of confidential information in ComReg Document No. 05/24.
- 10.7 ComReg appreciates that many of the issues raised in this Consultation may require respondents to provide confidential information.
- 10.8 As it is ComReg's policy to make all responses available on its website and for inspection generally, respondents to this Consultation are requested to clearly identify specific confidential material within their submissions and place any such confidential material in a separate document to their response, with this also being provided by the date referred to in paragraph 1.46 above.

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<sup>656</sup> Guidance on responses to this Consultation is provided at paragraphs 1.43 to 1.48 above.

- 10.9 Confidential elements of responses must be clearly marked as such, using the following format: [~~X~~***text deemed to be confidential***], and be set out in a separate document which must also be provided to ComReg by the date referred to in paragraph 1.46 above.
- 10.10 Such Information will be treated subject to the provisions of ComReg's guidelines on the treatment of confidential information as set out in ComReg Document No. 05/24.
- 10.11 In submitting comments, respondents are also requested to provide a copy of their submissions in an unprotected electronic format in order to facilitate their subsequent publication by ComReg.

## Annex: 1 Retail price sensitivity and switching analysis (RFVC)

- 1.1 The purpose of this Annex is to summarise the price sensitivity analysis<sup>657</sup> undertaken by ComReg in relation to RFVC which is then used in the analysis set out in Sections 4 and 5 (in respect of indirect constraints) of this Consultation in the context of the assessment of the impact of indirect constraints on the Relevant FVCT Markets.
- 1.2 In this regard, it should be noted that, since FTRs are an input to the overall costs of the Service Provider originating calls, an increase in FTRs is likely to be passed on to the Service Provider's subscribers through their retail calls or other charges. Thus, as part of the overall demand-side substitution assessment in defining the Relevant FVCT Markets, ComReg examines consumers' and SMEs' switching responses following an increase in the terminating FSP's FTRs and the extent of any pass-through<sup>658</sup> of this increase by the originating Service Provider into its retail prices for calling a subscriber of the relevant FSP.<sup>659</sup>
- 1.3 ComReg's analysis draws on the 2016 Market Research which included a range of questions that examined consumer and SME behaviour and their potential responses to increases in the prices of RFVC as a result of the pass-through of FTR increases.
- 1.4 In particular, RFVC subscribers, consumers<sup>660</sup> and SMEs<sup>661</sup> (Standalone and bundled services) were asked to indicate the extent to which they would change their behaviour when making off-net fixed-to-fixed, fixed-to-mobile, mobile-to-mobile and, in the SME sector only, mobile-to-fixed calls as a result of a hypothetical SSNIP of 1 cent in the cost of such calls.

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<sup>657</sup> The 2016 Market Research was carried out by RedC in July 2016. The analysis included 1018 consumer face-to-face interviews, which signified a nationally representative sample of telecommunications decisions makers aged 18+. 500 telephone interviews were also completed among a representative sample of Irish SMEs (0-250 employees).

<sup>658</sup> While likely, it is by no means certain that some or all of the increase will be passed through. This will depend on the originating Service Provider's ability to absorb the price increase.

<sup>659</sup> It is also worth noting that the pass-through of an FTR increase could be spread over the entire costs of a retail tariff/plan as opposed to retail call prices alone. For example, it could be recovered through a combination of access (line rental) and call price increases.

<sup>660</sup> 2016 Consumer FVCT Market Research, slides 88 to 112.

<sup>661</sup> 2016 SME FVCT Market Research, slides 78 to 99.

- 1.5 While it is uncertain whether the entire FTR increase will be passed through to the price of retail calls or other associated prices (or if it is passed through at all), ComReg notes that hypothetical 1 cent RFVC SSNIP tested in the 2016 Market Research greatly exaggerates the effects of a full retail pass-through of a 5-10% increase in FTRs (above the competitive price level).<sup>662</sup>
- 1.6 The expressed consumer/SME behaviour in response to hypothetical RMVC price changes, rather than being determinative, is used to inform ComReg's demand-side substitution analysis in the Relevant FVCT Market (in the context of indirect constraints), with the views expressed by consumers and SMEs set out in the paragraphs below.
- 1.7 At a 1 cent SSNIP of RFVC, 16% of consumer respondents purchasing standalone RFVC stated that they would definitely change their behaviour, with a further 14% noting that they might change their behaviour.<sup>663</sup>
- 1.8 Among consumer respondents purchasing RFVC in a bundle with other services, 8% of consumer respondents stated that they would definitely change their behaviour, while 17% noted that they might change their behaviour.<sup>664</sup>
- 1.9 Overall, the majority of consumer respondents purchasing RFVC noted that they would not change their behaviour in response to a 1 cent RFVC SSNIP. Table 1.1 outlines responses from consumers, when asked if they would change their behaviour based on a 1 cent per minute price increase.

**Table 1.1: Consumer respondents' stated likelihood of change in behaviour arising from 1 cent increase in the price of RFVC**

	Yes, definitely change behaviour	Yes, maybe change behaviour	No change in behaviour
<b>1 cent increase in fixed-to-fixed (off-net) call price (standalone RFVC)</b> <sup>665</sup>	16%	14%	70%
<b>1 cent increase in fixed-to-fixed (off-net) call price (purchasers of RFVC in a bundle)</b> <sup>666</sup>	8%	17%	75%

<sup>662</sup> The current highest FTR is that of Ocean at 1.612 cent per minute (note Ocean is not currently designated with SMP and its FTRs are, therefore, unregulated). It is also likely that this FTR is above the competitive level, having regard to the FTRs charged by the 2007 SMP FSPs (0.072 cent per minute).

<sup>663</sup> 2016 Consumer FVCT Market Research, slide 88.

<sup>664</sup> 2016 Consumer FVCT Market Research, slide 100.

<sup>665</sup> 2016 Consumer FVCT Market Research, slide 88.

<sup>666</sup> 2016 Consumer FVCT Market Research, slide 100.

- 1.10 Among consumer respondents who were likely to change their behaviour as a result of a 1 cent SSNIP in RFVC, reducing the number of calls and downgrading to a cheaper bundle were the most frequently cited options by purchasers of standalone RFVC and purchasers of RFVC bundled with other services respectively.<sup>667</sup> Table 1.2 summarises the potential switching actions of responding residential RFVC subscribers.

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<sup>667</sup> 2016 Consumer FVCT Market Research, slides 88 to 112.

**Table 1.2: Reported switching behaviour of responding residential RFVC subscribers<sup>668</sup>**

	Residential standalone RFVC subscribers	Residential bundled RFVC subscribers	Total	Total as % of those respondents with a Fixed Line Phone (n=617)
	N	n	n	%
No. of respondents	132	485	617	
Slide Reference	Slide 88	Slide 100		
<b>Definitely /Maybe change behaviour in response to SSNIP<sup>669</sup></b>				
No. of respondents	39	121	160	26%
Slide Reference	Slide 89	Slide 101		
<b>How Behaviour would change<sup>670</sup></b>				
Cancel Subscription	11	24	35	6%
Keep Subscription, but reduce the number of calls made or downgrade to a cheaper bundle	19	50	69	11%
Do nothing	7	28	35	6%
Other	2	19	21	3%
Slide Reference	Slide 89	Slide 101		
<b>Potential Switching Actions after cancelling subscription or reducing the number of made calls<sup>671</sup></b>				
Make more calls on mobile	11	5	16	3%
Use mobile phone more for both calls and texts	8	6	14	2%
Send more texts on mobile	8	1	9	1%
Make less calls on fixed line phone and not replace them with other forms of communication	5		5	1%
Make more voice/video calls using OTT apps	5	1	6	1%
Send more emails or use the Internet more often for social networking/instant messaging	5	2	7	1%
Ask for call back via email or text message	2		2	0.3%
Do something else	1		1	0.1%
Make no changes	1		1	0.1%
Slide Reference	Slide 91	Slide 104		

1.11 Residential RFVC respondents were also asked whether they would change their call receipt behaviour if they were concerned about the cost faced by people when calling them, with the reported behaviours and their frequency set out below. The 2016 Market Research indicates that the majority of respondents are not likely to shorten the length of calls, or not answer the call when receiving calls to their landline.<sup>672</sup> This suggests that the majority of consumer RFVC respondents are not concerned about receiving calls from other landlines on other networks, to their landlines.

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<sup>668</sup> 1,018 residential respondents were surveyed. Of these, 625 respondents reported they had a fixed line phone used for voice telephony. These respondents were asked whether they purchase standalone RFTS or RFTS in a bundle with other services. Subsequently respondents were asked about their reaction to a SSNIP of a call to a fixed line phone on another fixed line network.

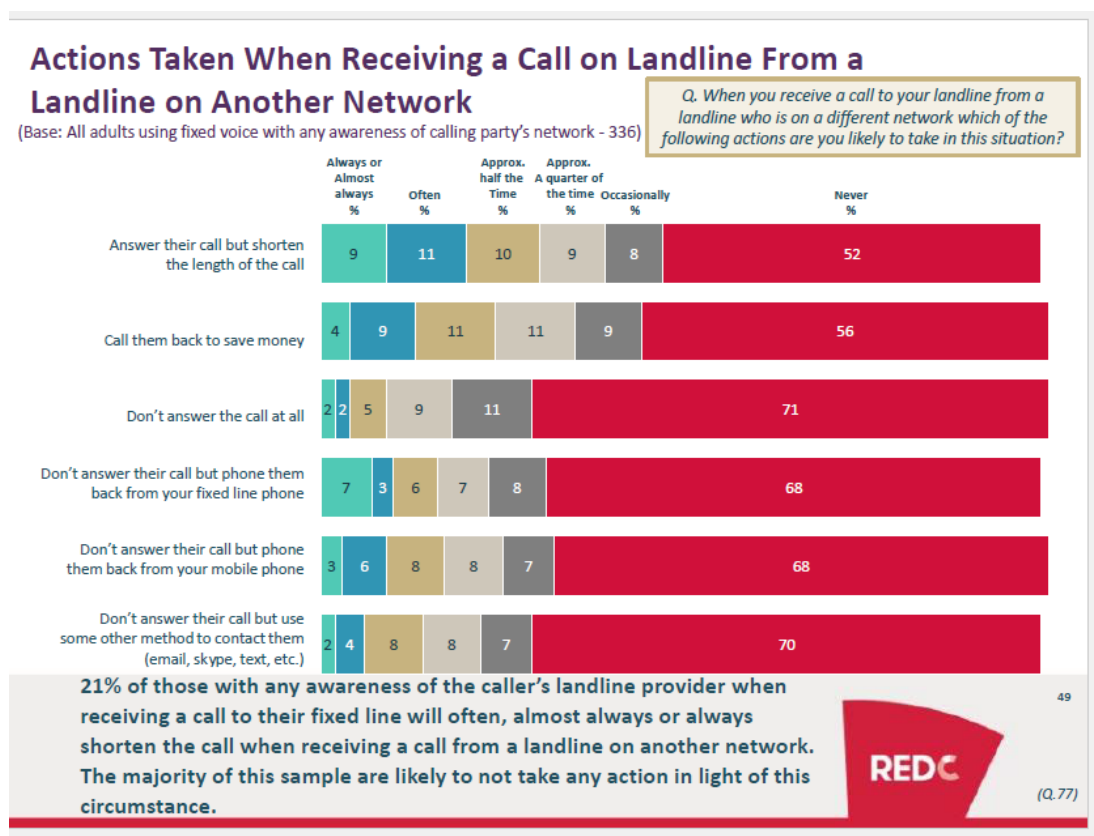
<sup>669</sup> Respondents were asked whether they would change their behaviour in response to a 1 cent increase in the price of an off-net fixed-to-fixed call. Responses were recorded as Yes or No. Those that stated Yes were asked whether they would Definitely Change Behaviour, Maybe - Might Change Behaviour or No Change in Behaviour.

<sup>670</sup> Respondents who stated they would definitely or maybe change their behaviour in response to a price increase were asked to state what actions they would take in response to the price increase. A number of these respondents stated they would cancel their RFTS subscription. Other respondents who said they would definitely or maybe change their behaviour stated they would keep their current subscription and reduce the number of calls they made, they would keep their current subscription, but switch to a cheaper package/bundle, do something else or do nothing in response to a price increase.

<sup>671</sup> Respondents who stated that they would definitely or maybe change their behaviour and responded that they would cancel their RFTS subscription or keep their subscription, but make fewer calls, were asked what actions they might take instead when communicating with other people. Respondents were allowed to pick multiple options.

<sup>672</sup> 2016 Consumer FVCT Market Research, slide 49.

**Figure 1.1: Consumer respondents' behaviour when receiving an off-net fixed voice call**



1.12 Similar questions were asked of SME respondents. Table 1.3 illustrates that the majority of SME respondents purchasing RFVC are unlikely to change their behaviour when making calls to subscribers on other fixed voice networks in response to a 1 cent SSNIP of RFVC.



**Table 1.3: SME respondents' stated likelihood of change in behaviour arising from a 1 cent increase in price of RFVC**

	Yes, definitely change behaviour	Yes, maybe change behaviour	No change in behaviour
1 cent increase in fixed-to-fixed (off-net) call price (purchasers of standalone RFVC) <sup>673</sup>	18%	13%	69%
1 cent increase in fixed-to-fixed (off-net) call price (purchasers of RFVC bundled with other services) <sup>674</sup>	17%	12%	71%
1 cent increase in mobile-to-fixed call price <sup>675</sup>	11%	4%	85%

1.13 Among SME respondents who were likely to change their behaviour, researching other offers, reducing the number of calls and downgrading to a cheaper bundle were the most frequently quoted actions.<sup>676</sup> Table 1.4 summarises the potential switching actions of responding SME RFVC subscribers.

<sup>673</sup> 2016 SME FVCT Market Research, slide 78.

<sup>674</sup> 2016 SME FVCT Market Research, slide 89.

<sup>675</sup> 2016 SME MVCT Market Research, slide 117.

<sup>676</sup> 2016 SME FVCT Market Research, slide 90.

**Table 1.4: Reported switching behaviour of responding SME RFVC subscribers<sup>677</sup>**

	SME standalone RFVC subscribers	SME bundled RFVC subscribers	Total	Total as % of those respondents with a Fixed Line Phone (n=444)
	n	n		n
No of respondents	201	243	444	
Slide Reference	Slide 83	Slide 95		
<b>Definitely/Maybe change behaviour in response to SSNIP<sup>678</sup></b>				
No of respondents	63	70	133	29%
Slide Reference	Slide 79	Slide 90		
<b>How Behaviour would change<sup>679</sup></b>				
Cancel Subscription	9	9	18	4%
Keep Subscription, but reduce the number of made calls/downgrade to a cheaper bundle	11	19	30	7%
Do nothing	6	4	10	2%
Other <sup>680</sup>	37	38	75	17%
Slide Reference	Slide 79	Slide 90		
<b>Potential Switching Actions after cancelling subscription or reducing the number of made calls<sup>681</sup></b>				
Make more mobile calls	13	15	28	6%
Use mobile phone more for both calls and texts	13	18	31	7%
Send more texts on mobile	9	16	25	6%
Make less calls on fixed line phone and not replace them with other forms of communication	8	17	25	6%
Make more voice/video calls using OTT apps	6	12	18	4%
Send more emails or use the Internet more often for social networking/instant messaging	13	18	31	7%
Slide Reference	Slide 81	Slide 93		

1.14 Based on the above analysis it is ComReg's preliminary view that the majority of domestic and SME RFVC subscribers would not change their behaviour in response to a hypothetical 1 cent per minute increase.

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<sup>677</sup> 500 SME respondents were surveyed. Of these, 445 respondents reported that they had a fixed line phone used for voice telephony. These respondents were asked whether they purchase standalone RFTS or RFTS in a bundle with other services. Subsequently, respondents were asked about their reaction to a SSNIP of a call to a fixed line phone on another fixed line network.

<sup>678</sup> Respondents were asked whether they would change their behaviour in response to a 1 cent increase in the price of an off-net fixed-to-fixed call. Responses were recorded as Yes or No. Those that indicated Yes were asked whether they would Definitely Change Behaviour, Maybe - Might Change Behaviour or No Change in Behaviour.

<sup>679</sup> Respondents who stated they would definitely or maybe change their behaviour in response to a price increase were asked to state what actions they would take in response to the price increase. A number of these respondents stated they would cancel their RFTS subscription. Other respondents who said they would definitely or maybe change their behaviour stated they would keep their current subscription and reduce the number of calls they made, they would keep their current subscription, but switch to a cheaper package/bundle, do something else or do nothing in response to a price increase.

<sup>680</sup> Over 20% of SME respondents (standalone and in a bundle) noted that they would research other offers.

<sup>681</sup> Respondents who stated they would definitely or maybe change their behaviour and responded that they would cancel their RFTS subscription or keep their subscription, but make fewer calls were asked what actions they might take instead when communicating with other people. Respondents were allowed to pick multiple options.

## Annex: 2 Retail price sensitivity and switching analysis (RMVC)

- 2.1 The purpose of this Annex is to summarise the price sensitivity analysis<sup>682</sup> undertaken by ComReg in relation to RMVC market which is set out in Sections 4 and 5 (in the context of indirect constraints) of this Consultation.
- 2.2 In this regard, it should be noted that, since MTRs are an input to the overall costs of the Service Provider originating calls, an increase in MTRs is likely to be passed on to the Service Provider's subscribers through their retail calls or other charges. Thus, as part of the overall demand-side substitution assessment, ComReg examines consumers' and SMEs' switching responses following an increase in the terminating MSP's MTRs and the pass-through<sup>683</sup> of this increase by the originating Service Provider into its retail prices for calling a subscriber of the relevant MSP.<sup>684</sup>
- 2.3 ComReg's analysis draws on the 2016 Market Research which included a range of questions that examined consumer and SME behaviour and their anticipated responses to increases in the prices of RMVC. In particular, consumers<sup>685</sup> and SMEs<sup>686</sup> were asked to indicate the extent to which they would change their behaviour when making off-net mobile-to-mobile, fixed-to-mobile and mobile-to-fixed<sup>687</sup> calls as a result of a hypothetical SSNIP of 1 cent and, separately, 3<sup>688</sup> cent of such calls.

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<sup>682</sup> Market Research was carried out by RedC on behalf of ComReg, in the MVCT market, in July 2016. The analysis included 1038 consumer face-to-face interviews, of all adults aged 15+ who used a mobile phone, in July 2016. In addition, 500 telephone interviews were completed among a representative sample of Irish SMEs (0-250 employees), in August 2016.

<sup>683</sup> While likely, it is by no means certain that some or all of the increase will be passed through. This will depend on the originating Service Provider's ability to absorb the price increase.

<sup>684</sup> The pass-through of an MTR increase could be spread over the entire costs of a retail tariff as opposed to retail call prices alone. For example, the MTR increase could be recovered through a combination of access, call or handset price increases.

<sup>685</sup> 2016 Consumer MVCT Market Research, slides 106 to 113.

<sup>686</sup> 2016 SME MVCT Market Research, slides 114 to 123.

<sup>687</sup> Mobile-to-fixed was tested in the SME sector only.

<sup>688</sup> This was tested on mobile-to-mobile off-net calls only.

- 2.4 While it is uncertain whether the entire MTR increase will be passed through to the price of retail calls or other associated prices (or indeed if it is passed through at all), ComReg notes that hypothetical 1 cent and 3 cent SSNIPs in RMVC tested in the 2016 Market Research exaggerates the effects of a full retail pass-through of a 5% to 10% increase in MTRs (above the competitive price level).<sup>689</sup>
- 2.5 The expressed consumer/SME behaviour in response to hypothetical RMVC price changes, rather than being determinative, is used to inform ComReg's demand-side substitution analysis, with the views expressed by consumers and SMEs set out in the below paragraphs.
- 2.6 At a 1 cent increase in the price of RMVC, 6% of consumer respondents purchasing RMVC stated that they would definitely change their behaviour with a further 10% noting that they might change their behaviour.<sup>690</sup> Among respondents purchasing RFVC, the likelihood of change in behaviour is slightly higher, with 11%<sup>691</sup> of standalone RFVC purchasers and 7%<sup>692</sup> of bundled RFVC purchasers noting that they would definitely change behaviour. Overall, the majority of consumer respondents purchasing RMVC and/or RFVC noted that they would not change their behaviour if the price of RMVC were to increase by 1 cent.
- 2.7 At a 3 cent increase, the indicated change in behaviour increases significantly with 22% of consumer respondents purchasing RMVC noting that they would definitely change their behaviour and a further 15% noting that they might change their behaviour.

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<sup>689</sup> The current highest MTR is that of Virgin Media at 2.6 cent per minute (Virgin Media is not currently designated with SMP and its MTRs are, therefore, unregulated). It is also likely that this MTR is above the competitive level, having regard to the MTRs charged by the 2012 SMP MSPs (0.82 cent per minute). A 5% to 10% increase in a 2.6 cent MTR is in the range of 0.13 cent to 0.26 cent and assuming this is fully passed through to retail customers, it would give rise to an increase of less than 1 cent which is highly unlikely to be noticed by retail customers. Thus, hypothetical 1 cent and 3 cent increases in the price of RMVC were used to examine respondents' behaviour.

<sup>690</sup> 2016 Consumer MVCT Market Research, slides 107.

<sup>691</sup> 2016 Consumer FVCT Market Research, slide 93.

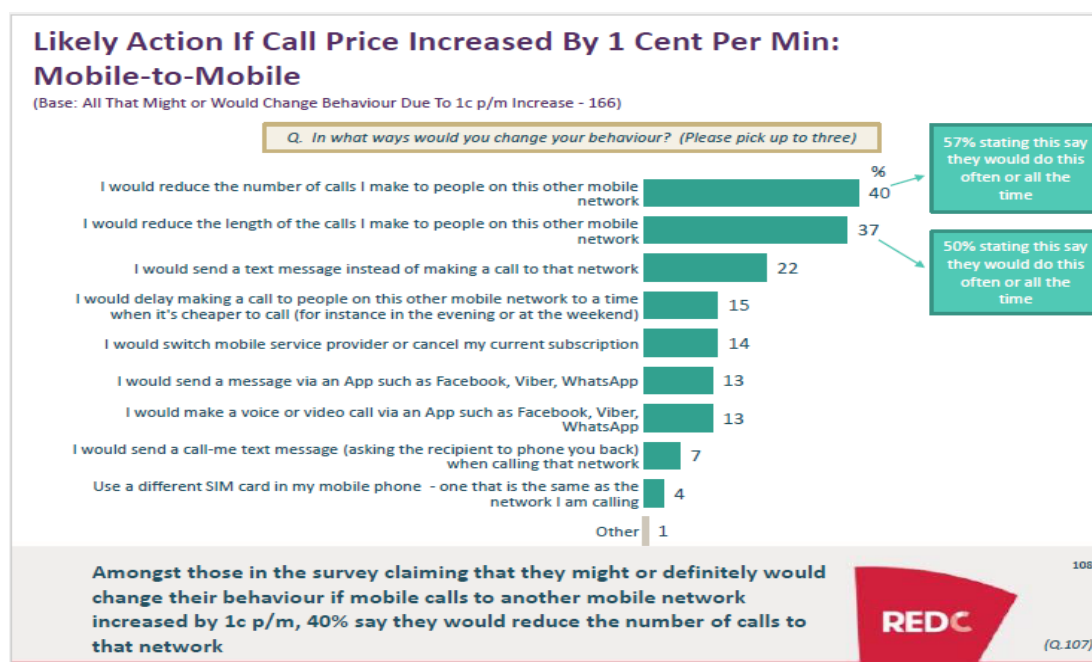
<sup>692</sup> 2016 Consumer FVCT Market Research, slide 106.

**Table 2.1: Consumer respondents' likelihood of change in behaviour arising from 1c and 3c increases in the price of RMVC**

	Yes, definitely change behaviour	Yes, maybe change behaviour	No change in behaviour
1c increase in mobile-to-mobile off-net call price <sup>693</sup>	6%	10%	84%
3c increase in mobile-to-mobile off-net call price <sup>694</sup>	22%	15%	63%
1c increase in fixed-to-mobile call price (purchasers of standalone RFVC) <sup>695</sup>	11%	13%	76%
1c increase in fixed-to-mobile call price (purchasers of RFVC in a bundle) <sup>696</sup>	7%	14%	79%

2.8 Among consumer respondents who were likely to change their behaviour as a result of a SSNIP of 1 cent, reducing the number of calls made or the duration of off-net mobile-to-mobile calls, were the most frequently cited options as indicated below. Over 50% of respondents that noted such behavioural change also indicated that they would do this often or almost always.

**Figure 2.1: Consumer respondents' stated behavioural response at 1 cent RMVC price increase**



<sup>693</sup> 2016 Consumer MVCT Market Research, slide 107.

<sup>694</sup> 2016 Consumer MVCT Market Research, slide 109.

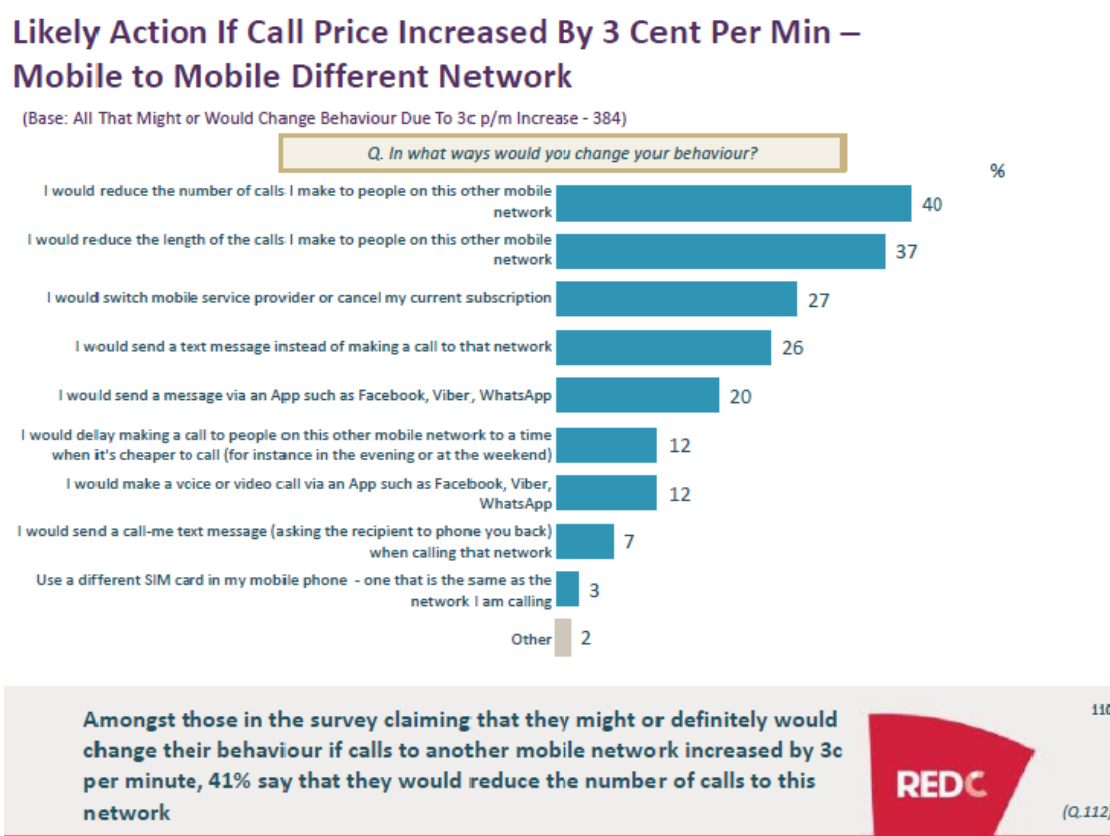
<sup>695</sup> 2016 Consumer FVCT Market Research, slide 93.

<sup>696</sup> 2016 Consumer FVCT Market Research, slide 106.

2.9 Similar behavioural responses to a 3 cent SSNIP were cited by consumer respondents purchasing RMVC. However, a noticeable increase in the number of consumer respondents indicating that they would switch their MSP or cancel their current subscription is also observed as demonstrated below.<sup>697</sup>

2.10 The frequency of stated behavioural changes is high with the majority of respondents noting that they would proceed with their stated behavioural change often or almost always.

**Figure 2.2: Consumer respondents’ behavioural response at 3 cent RMVC price increase**



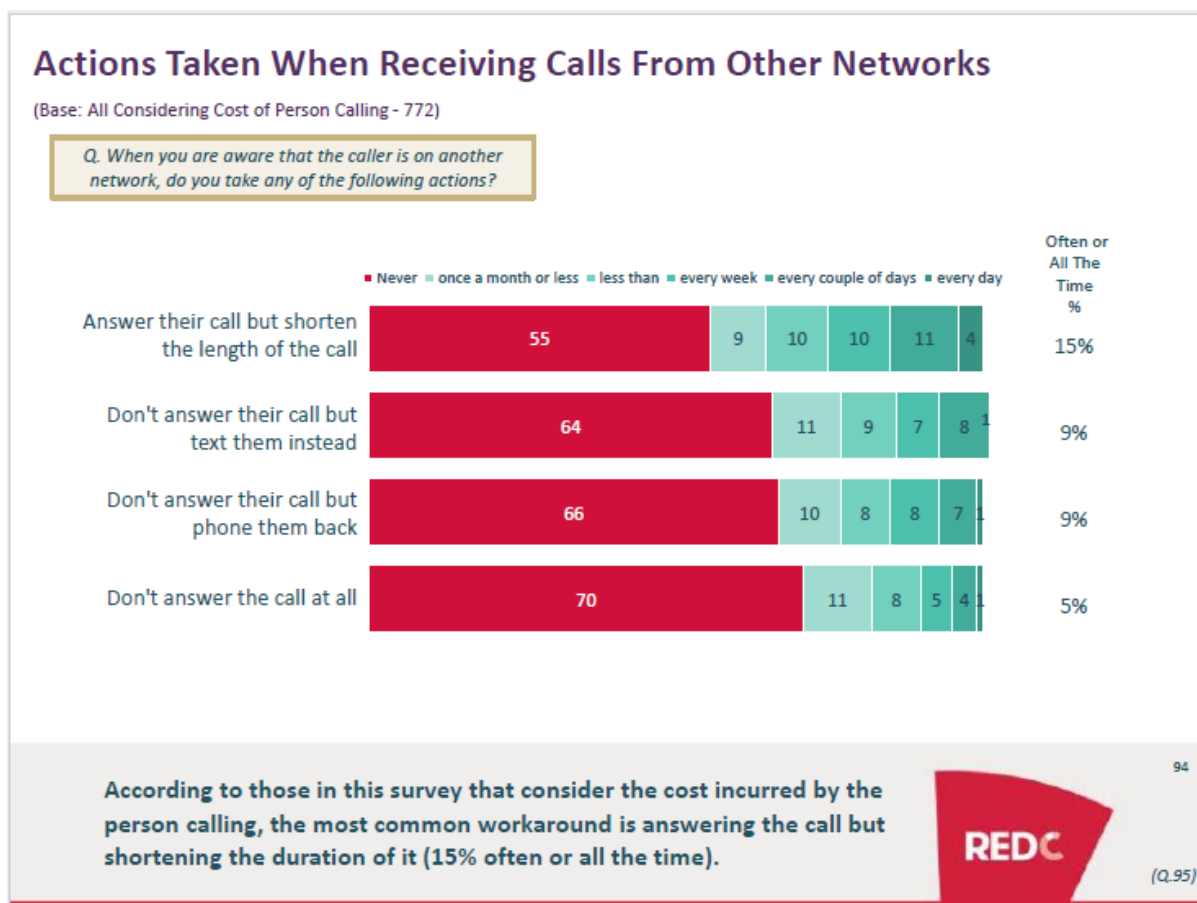
2.11 Similar behavioural responses were also cited by purchasers of RFVC who noted that they are likely to change their behaviour in response to a 1 cent SSNIP of fixed-to-mobile calls.<sup>698</sup>

<sup>697</sup> 2016 Consumer MVCT Market Research, slide 110. It should be noted that, in this instance, n=384, a smaller proportion of the overall sample.

<sup>698</sup> 2016 Consumer FVCT Market Research, slide 93.

2.12 Consumer respondents were also asked<sup>699</sup> whether they would change their behaviour, when receiving a call, if they were concerned about the cost for people when calling them, with the reported behaviours and their frequency set out below. It indicates that the majority of respondents are not likely to change their behaviour, when receiving a call, even if they know that the caller is on another mobile network.

**Figure 2.3: Consumer respondents’ stated behaviour when receiving off-net mobile call**



2.13 Similar questions were asked of SME respondents. Table 2.2 below demonstrates that the majority of SME respondents purchasing RMVC<sup>700</sup> and/or RFVC are unlikely to change their behaviour when making calls to mobile networks, in response to a 1 cent increase in the price of calls to mobiles.

<sup>699</sup> 2016 Consumer MVCT Market Research, slide 94.

<sup>700</sup> 2016 SME MVCT Market Research, slide 114.



**Table 2.2: SME respondents' stated likelihood of change in behaviour arising from a 1 cent increase in price of RMVC**

	Yes, definitely change behaviour	Yes, maybe change behaviour	No change in behaviour
1 cent increase in mobile-to-mobile off-net call price <sup>701</sup>	13%	3%	84%
1 cent increase in fixed-to-mobile call price (standalone RFVC) <sup>702</sup>	19%	10%	71%
1 cent increase in fixed-to-mobile call price (RFVC in a bundle) <sup>703</sup>	18%	12%	70%

2.14 Among SME respondents, the following actions were most frequently encouraged by employers of their employees,<sup>704</sup> following a 1 cent price increase in the cost of making a call to another mobile network;

- 55% - make fewer calls
- 67 % - reduce the length of a call
- 52% - change supplier; and
- 63% - encourage employees to send a text message instead of making a call.

2.15 Based on the above analysis it is ComReg's preliminary view that, the majority of RMVC subscriber's (consumers and SME) would not change their behaviour, as a result of a hypothetical 1 cent per minute increase. This item is further detailed in Sections 4 and 5 of this consultation.

<sup>701</sup> 2016 SME MVCT Market Research, slide 114.

<sup>702</sup> 2016 SME FVCT Market Research, slide 83.

<sup>703</sup> 2016 SME FVCT Market Research, slide 95.

<sup>704</sup> 2016 SME MVCT Market Research, slide 116.

## Annex: 3 FSP and MSP Retail Price Plans

### FSP Retail Price Plans<sup>705</sup>

Plan Name	Prepay (P) or Billpay (B) Plan	Plan Pricing Differs by Time of Day	Off-Net Plan Pricing Differs by Service Provider	On-Net Pricing Differs to Off-Net Pricing
<b>Eircom</b>				
Eir Talk Off-peak Mobile <sup>706</sup>	<b>B</b>	✓	✗	✗
Eir Talk Unlimited Mobile and UK <sup>707</sup>	<b>B</b>	✗	✗	✗
Eir Talk International <sup>708</sup>	<b>B</b>	✗	✗	✗
<b>Virgin Media</b>				
Anytime Mobile <sup>709</sup>	<b>B</b>	✗	✗	✗
Mobile World <sup>710</sup>	<b>B</b>	✗	✗	✗
<b>Pure Telecom</b>				
Pure Telecom <sup>711</sup>	<b>B</b>	✗	✗	✗
<b>Sky</b>				
Sky Talk Freetime <sup>712</sup>	<b>B</b>	✓	✗	✗
Sky Talk Anytime <sup>713</sup>	<b>B</b>	✓	✗	✗

<sup>705</sup> Price plan data correct as of September 22, 2017.

<sup>706</sup> Unlimited Off Peak local & national calls to landlines & Irish mobiles: <https://www.eir.ie/phone/>

<sup>707</sup> Ibid.

<sup>708</sup> Ibid.

<sup>709</sup> <https://www.virginmedia.ie/broadband/learn-about-home-phone/>

<sup>710</sup> Ibid.

<sup>711</sup> <https://puretelecom.ie/phone>

<sup>712</sup> <http://www.sky.com/ireland/broadband-talk/talk-compare/>

<sup>713</sup> Ibid.

## MSP Retail Price Plans

Vodafone Price Plans					
Plan Name	Prepay (P) or Billpay (B) Plan	Plan Pricing Differs by Time of Day <sup>714</sup>	Off-Net Plan Pricing Differs by Service Provider Called <sup>715</sup>	On-Net Pricing Differs to Off-Net Pricing <sup>716</sup>	Data Usage included
Chat Extra <sup>717</sup>	P	✗	✗	✗	✓
Smart Extra	P	✗	✗	✓ F	✓
Extra	P	✗	✗	✗	✓
RED Connect 12 Month SIM Only <sup>718</sup>	B	✗	✗	✗	✓
RED 30 day	B	✗	✗	✗	✓
RED Connect	B	✗	✗	✗	✓
RED Connect Essentials	B	✗	✗	✗	✓
RED Connect Super	B	✗	✗	✗	✓

<sup>714</sup> This column (throughout) captures whether the price of making calls differs according to when call is made during peak, off-peak or weekend. ✓=Yes and ✗=No. If Yes, then it is also indicated if the difference applies to All Calls (Mobile and Fixed) (AC), Mobile Only (MO), Fixed Only (FO) or to calls to the Same Network (SN) only.

<sup>715</sup> This column (throughout) captures whether there is a difference in the price of making 'off-net' calls to subscribers of other mobile service providers (MSPs) or fixed service providers (FSPs) (together 'Service Providers') differs. ✓=Yes and ✗=No. If Yes, then it is also indicated if this difference applies to one or more Specific Mobile Service Providers (SMSPs) on the one hand, or to FSPs on the other and whether the price is at a Discounted Rate (DR) or is Free (F).

<sup>716</sup> This column (throughout) captures whether the cost of making a call to a subscriber of the same MSP is different to the cost of calling a subscriber of a different MSP or FSP. ✓=Yes and ✗=No. If Yes, then it is also indicated whether the on-net call price is at a Discounted Rate (DR) or is Free (F).

<sup>717</sup> <http://www.vodafone.ie/pay-as-you-go-plans/>

<sup>718</sup> <http://www.vodafone.ie/bill-pay-plans/>

3 Ireland Price Plans					
Plan Name	Prepay (P) or Billpay (B) Plan	Plan Pricing Differs by Time of Day	Off-Net Plan Pricing Differs by Service Provider Called	On-Net Pricing Differs to Off-Net Pricing	Data Usage Included
Three Prepay <sup>719</sup>	P	✘	✘	✓ F	✓
Unlimited Flex Max Sim Only <sup>720</sup>	B	✘	✘	✓ F	✓
Mini Flex Max 100 <sup>721</sup>	B	✘	✘	✓ F	✓
Classic Flex Max 350	B	✘	✘	✓ F	✓
Unlimited Flex max	B	✘	✘	✓ F	✓

<sup>719</sup> <http://www.three.ie/eshop/phone-plans/prepay/>

<sup>720</sup> <http://www.three.ie/eshop/sim-only-plans/bill-pay-sim-only/>

<sup>721</sup> <http://www.three.ie/eshop/phone-plans/bill-pay/>

TMI Price Plans					
Plan Name	Prepay (P) or Billpay (B) Plan	Plan Pricing Differs by Time of Day	Off-Net Plan Pricing Differs by Service Provider Called	On-Net Pricing Differs to Off-Net Pricing	Data usage included
Prepay 10GB <sup>722</sup>	P	✗	✗	✗	✓
30 day plan - €10 monthly <sup>723</sup>	B	✗	✗	✗	✓
€25 Sim + International 12 month plan	B	✗	✗	✗	✓
30 day plan - €25 monthly	B	✗	✗	✗	✓
€10 monthly <sup>724</sup>	B	✗	✗	✗	✓
€20 monthly	B	✗	✗	✗	✓
€30 monthly	B	✗	✗	✗	✓
€50 monthly	B	✗	✗	✗	✓
Lycamobile Mobile Price Plans (National Bundles only) <sup>725</sup>					
Plan Name	Prepay (P) or Billpay (B) Plan	Plan Pricing Differs by Time of Day	Off-Net Plan Pricing Differs by Service Provider Called	On-Net Pricing Differs to Off-Net Pricing	Data usage Included
Ireland Plus	P	✗	✗	✗	✓
National S	P	✗	✗	✗	✓
Talk & Text S	P	✗	✗	✓ F <sup>726</sup>	✗

<sup>722</sup> <https://www.tescomobile.ie/prepay-plans.aspx>

<sup>723</sup> <https://www.tescomobile.ie/sim-only-plans.aspx>

<sup>724</sup> <https://www.tescomobile.ie/bill-pay-plans.aspx>

<sup>725</sup> <https://www.lycamobile.ie/en/bundle>

<sup>726</sup> 450 minutes of calls to any network are included in the bundle. Charges for calls thereafter differ between on-net and off-net calls. See more at: <https://www.lycamobile.ie/en/nationalrates>

Eir Mobile Price Plans					
Plan Name	Prepay (P) or Billpay (B)	Plan Pricing Differs by Time of Day	Off-Net Plan Pricing Differs by Service Provider Called	On-Net Pricing Differs to Off-Net Pricing	Data Usage Included
€10 Calls <sup>727</sup>	P	✗	✗	✗	✗
€20 Calls & Data	P	✗	✗	✗	✓
€20 Text & Data	P	✗	✗	✗	✓
€20 Calls & Texts	P	✗	✗	✗	✗
€30 Calls & Texts	P	✗	✗	✗	✓
100 1GB + Roaming <sup>728</sup>	B	✗	✗	✗	✓
100 1GB + Roaming SIM Only	B	✗	✗	✗	✓
400 10GB + Roaming	B	✗	✗	✗	✓
400 10GB + Roaming SIM Only	B	✗	✗	✗	✓
Unlimited 15GB + Roaming	B	✗	✗	✗	✓
Unlimited 15GB + Roaming SIM Only	B	✗	✗	✗	✓
Unlimited 30GB + Roaming	B	✗	✗	✗	✓
Unlimited 30GB + Roaming SIM Only	B	✗	✗	✗	✓

<sup>727</sup> <https://www.eir.ie/mobile/prepay/>

<sup>728</sup> <https://www.eir.ie/opencms/export/sites/default/.content/pdf/pricing/pt12.2.pdf>

<b>Virgin Media Price Plans</b>					
<b>Plan Name</b>	<b>Prepay (P) or Billpay (B) Plan</b>	<b>Plan Pricing Differs by Time of Day</b>	<b>Off-Net Plan Pricing Differs by Service Provider Called</b>	<b>On-Net Pricing Differs to Off-Net Pricing</b>	<b>Data Usage Included</b>
Virgin Mobile <sup>729</sup> Unlimited	B	x	x	x	✓
Virgin Mobile 2GB	B	x	x	x	✓
2GB Plan <sup>730</sup>	B	x	x	x	✓
Unlimited Plan	B	x	x	x	✓

<sup>729</sup> SIM Only plan. See more at: <https://www.virginmedia.ie/mobile/sim-only/>

<sup>730</sup> <https://www.virginmedia.ie/mobile/>

## Annex: 4 Other SMP assessment criteria

- 4.1 As noted in Section 6, other factors which could have been assessed to indicate the potential market power of a WVCT supplier in the course of this market review have been considered but, for the reasons set out below, are considered of little or no relevance for the purposes of the SMP assessment in the Relevant FVCT Markets, and the Relevant MVCT Markets.

### Overall size of the undertaking

- 4.2 This criterion refers to the potential advantages, and the sustainability of those advantages, that may arise by virtue of the size of an undertaking, relative to its competitors or customers. Having regard to the definition of the Relevant Termination Markets, each Relevant Termination Market consists of a single supplier of FVCT or MVCT and, therefore, there are no actual or potential competitors (given entry barriers). This criterion is, therefore, considered of nugatory relevance. ComReg does, however, consider this factor to be somewhat relevant in considering the strength and impact of any countervailing buyer power on SMP, which it has considered in Section 6.

### Technological advantages or superiority

- 4.3 Technological advances or superiority can represent a barrier to entry, as well as conferring the ability for an undertaking to achieve cost or production efficiencies, generating advantages over its competitors. Having regard to the definition of the Relevant Termination Markets, there is only one supplier in each Relevant Termination Market (given entry barriers) and, therefore, there are no actual or potential competitors with which to compare technologies. Comparisons amongst competitor technologies thus have little or no bearing on the assessment of SMP in the Relevant Termination Markets. This criterion is, therefore, considered of nugatory relevance.

### Easy or privileged access to capital markets/financial resources

- 4.4 Easy or privileged access to capital markets may act as a barrier to entry, however, for the same reasons identified in paragraph 4.3 there are absolute barriers to entry and no actual or potential competitors on each Relevant FVCT Market and Relevant MVCT Market. Capital/financial advantages vis-à-vis competitors do not therefore arise in the Relevant Termination Markets and this criterion is, therefore, considered of little relevance.



## A highly developed distribution and sales network

- 4.5 The need to establish distribution systems might delay short to medium term market entry, given the costs involved and could, therefore, act as a barrier to entry. The demand for wholesale FVCT and MVCT services is effectively driven by the retail subscribers of the wholesale access seekers making a call to the retail subscribers of the FVCT or MVCT supplier. The extent of an FVCT or MVCT supplier's wholesale distribution and sales network therefore plays little role in the decision to purchase FVCT or MVCT. Indeed, the decision to purchase FVCT or MVCT is not made at wholesale level by the actual purchaser (the originating Service Provider), but at retail level by the purchaser's subscriber. Hence, the nature of the SMP FSP or MSP's distribution and sales network is not necessarily complex. This criterion is, therefore, not considered relevant to the assessment of SMP in the Relevant Termination Markets.

## Product or services diversification

- 4.6 While there is often a positive correlation between product or service differentiation and market power (due to the capacity of differentiation to generate brand loyalty and thus to diminish a customer's willingness to switch supplier), FVCT or MVCT is generally purchased on a standalone basis, rather than as part of a broader suite of retail and wholesale services (although Transit may be included as part of a bundle with FVCT or MVCT). However, given that no actual or potential competitors have been identified in the Relevant Termination Markets, product and service differentiation by FSPs or MSPs would not confer any comparative advantage in such markets. FVCT or MVCT is purchased on a standalone rather than a bundled basis. This criterion is, therefore, considered of less relevance to the assessment of SMP in the Relevant Termination Markets.

## Economies of scale and scope

- 4.7 **Economies of scale** refer to reductions in average costs due to an increase in efficiency of production, as the number of goods produced increases. Typically, a company that achieves economies of scale does so through increased production as fixed costs are shared over an increased number of goods.
- 4.8 Economies of scale can act as a barrier to entry, given that new entrants may not achieve the same cost advantages as an existing producer whose output is at operating at a higher level, i.e. it may result in new entrants only being able to operate below the minimum efficient scale.
- 4.9 **Economies of scope** exist when a product's average costs are reduced by virtue of the firm producing the product jointly with other products, i.e. where the firm achieves lower costs of production as it produces products jointly rather than separately. Such economies can arise from businesses sharing centralised functions, such as finance or marketing. They can also arise from interrelationships elsewhere in the business process, such as cross-selling one product alongside another, or using the outputs of one business as the inputs of another.

- 4.10 Economies of scope can act as a barrier to entry where they confer cost advantages on a firm over its competitors, who may not, for instance, produce multiple product lines.
- 4.11 For the same reasons identified in paragraph 4.3 there are significant barriers to entry in the Relevant Termination Markets, and no actual or potential competitors. As a consequence, comparative cost advantages via scale or scope economies do not arise in the context of an SMP assessment. These criteria are, therefore, not considered relevant to the assessment of SMP in the Relevant Termination Markets.

## Barriers to expansion

- 4.12 Where entry barriers are overcome, the ability for new entrants to expand in a market is relevant to understanding the extent to which an undertaking can act independently of such new competitors. For the same reasons identified in paragraph 4.3 there are significant barriers to entry in the Relevant Termination Markets, no actual or potential competitors and, as a consequence, entry is unlikely to occur within the period of this market review. This criterion is, therefore, not considered of relevance to the assessment of SMP in the Relevant Termination Markets.

## Sunk costs

- 4.13 Sunk costs are costs that, once incurred, cannot be recovered on exit from the market, and can represent an absolute barrier to entry. A sunk cost differs from other, future costs that a business may face, such as inventory costs or R&D expenses, because it has already happened. For the same reasons identified in paragraph 4.3 there are significant barriers to entry in the Relevant Termination Markets, no actual or potential competitors and, as a consequence, any comparative advantages/disadvantages arising from sunk costs are not considered of relevance to the assessment of SMP in the Relevant Termination Markets.

## Annex: 5 Identification of Key Wholesale FVCT and MVCT Service Providers

5.1 This Annex documents Service Providers that currently provide (or may provide) FVCT and/or MVCT services, during the timeframe of this market review. It includes a summary of what typically characterises a Service Provider that provides or may potentially provide WVCT. ComReg proposes three categories which enabled grouping the FVCT and MVCT Service Providers or potential providers of WVCT services. The FVCT groups are outlined first followed by the MVCT groups.

### Fixed Service Providers - Wholesale FVCT Service

5.2 ComReg has identified the following three groups of FVCT Service Provider:

- (a) **Group A FSPs:** these are comprised of all those FSPs with Geographic Number<sup>731</sup> allocations which set/control the FTRs in respect of such Geographic Numbers and are currently active in the provision of FVCT;
- (b) **Group B FSPs:** these are comprised of those FSPs with Geographic Number allocations which are not currently active in the provision of FVCT in respect of such Geographic Numbers, but have negotiated, or have concrete plans to negotiate, interconnection with relevant wholesale purchasers, including the FTRs to be applied, and have formal plans regarding prospective wholesale and/or retail activity; and
- (c) **Group C FSPs:** these are comprised of those FSPs that have Geographic Number allocations and have indicated an intention to start supplying/charging for FVCT for calls to those Geographic Numbers within the next three years but have not yet formalised their plans regarding prospective wholesale and/or retail activity.

5.3 Section 5 of this Consultation sets out the key characteristics of a FVCT service as follows:

- (a) FVCT involves the FSP's control (either by means of an allocation from ComReg, or the transfer of the Rights of Use from another authorised undertakings) of the subscriber's Geographic Number which is key to routing the final leg of an inbound call to an end user at a fixed location;
- (b) FVCT involves interconnection between networks and the FSP's ability to set/control the FTR for inbound calls to the Geographic Numbers; and
- (c) FVCT involves technological neutrality (i.e. FVCT services for calls to all Geographic Numbers are included irrespective of whether the underlying technology is wired or wireless).

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<sup>731</sup> In Section 5 dealing with the definition of the Relevant FVCT Markets, numbers are defined fixed as including Geographic, 076, 112, 999 and (managed and partially-managed) VoIP numbers.

- 5.4 Therefore, ComReg has performed a detailed analysis in order to identify all FSPs that currently or prospectively will provide such FVCT services for the purposes of the present market review. In assessing the likelihood of potential FVCT service provisioning within the period of this market review, ComReg has examined *inter alia* whether a potential entrant has been assigned any of the numbering categories which, in Section 5 above, it concluded fell within the relevant markets (from ComReg or via transfer<sup>732</sup> from the original authorised Service Provider).
- 5.5 Evidence of any wholesale interconnection negotiations, as obtained through statutory industry requests, was considered and/or whether there are any formal plans for initiation of wholesale and/or retail activities over the three years, following the completion of this market analysis process and the adoption of a new decision.
- 5.6 Using this process, ComReg has identified the list of FSPs that are currently or prospectively active in providing FVCT services within the timeframe of this market review, as set out below. Based on the credibility of FVCT service provisioning over the timeframe of this market review, ComReg is of the preliminary view that the FSPs in Groups A and B below are identified as providing a service which falls within a Relevant FVCT Market for the purposes of this market review.
- 5.7 It should also be noted in respect of each of the Relevant FVCT Markets identified, in each case the listed FSP is deemed to include any undertaking which it owns or controls, and any undertaking which owns or controls it. The listed undertaking also includes its successors, affiliates and assigns. This means that consolidation of companies by acquisition, creation of a subsidiary or any other changes of control should not affect the list of FSPs operating or likely to operate within a Relevant FVCT Market.
- 5.8 Where there is market entry or exit the list of FSPs will, however require, consideration. As noted in Section 5 of this Consultation, ComReg proposes to keep Group C FSPs under review.

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<sup>732</sup> When the original assignee allows another (authorised) service provider to use the numbers. The original assignee (as the rights of use holder) remains responsible for ensuring that the numbers are used in compliance with the Numbering Conditions of Use (ComReg Document 15/136).

## Group A FSPs

5.9 These are FSPs with Geographic Number allocations which currently supply FVCT.

	<b>Group A - Fixed Service Provider</b>
1.	Eircom Limited
2.	BT Communications Ireland Limited
3.	Vodafone Ireland Limited
4.	Verizon Ireland Limited
5.	Virgin Media Ireland Limited
6.	PlanNet 21 Communications Limited
7.	Airspeed Communications
8.	Colt Technology Services Limited
9.	Imagine Communications Ireland Limited
10.	Magnet Networks Limited
11.	Telcom Limited
12.	In2com Limited
13.	Finarea SA
14.	Viatel Ireland Limited
15.	Blue Face Limited (trading as Blueface)
16.	Modeva Networks
17.	Equant Network Services International Limited
18.	Dialoga Servicios Interactivos SA
19.	Intellicom Ireland Limited
20.	Magrathea Telecommunications Limited
21.	Voxbone SA

## Group B FSPs

5.10 These are FSPs with fixed number allocations which do not currently supply FVCT but have negotiated, or have concrete plans to negotiate, interconnection with relevant wholesale partners, including FTRs to be applied, and have formal plans regarding prospective wholesale and/or retail activity.

<b>Group B - Fixed Service Provider</b>	
1.	Internet Protocol Telecom Limited (trading as IP Telecom)

## Group C FSPs

5.11 These are FSPs with fixed number allocations which do not currently supply FVCT and which have indicated an intention to supply FVCT over the next three years but do not currently have formal plans regarding prospective wholesale and/or retail activity.

<b>Group C - Fixed Service Provider</b>	
1.	Procom Voice Solutions Ltd, trading as Speechpath

## Mobile Service Providers - Wholesale MVCT Service

5.12 ComReg has identified MSPs which currently provide MVCT services and has completed analysis of those MSPs, to identify if any MVCT activity is likely and credible during the timeframe of this market review.

5.13 Section 5 of this Consultation sets out the key characteristics of a MVCT service as follows:

- (a) MVCT involves the provision of a WVCT service for the purpose of completing voice calls to subscribers' mobile numbers that have been assigned to an MSP;
- (b) MVCT is provided by a MSP (irrespective of whether it is a MNO or an MVNO) which has the ability to set/control the MTR; and
- (c) MVCT is technology neutral and does not differ according to whether MVCT is provided over 3G, 4G or other underlying mobile technology.

- 5.14 In assessing the likelihood of potential new MVCT service provisioning within the period of this market review, ComReg has examined whether a potential entrant has been assigned Mobile Numbers (from ComReg or via transfer<sup>733</sup> from the original authorised Service Provider).
- 5.15 Evidence of any wholesale interconnection negotiations was considered and/or whether there are any formal plans for initiation of wholesale and/or retail activities over the three years following the completion of this market analysis process and the adoption of a new decision.
- 5.16 Using this process, ComReg has identified the list of MSPs that are currently or prospectively active in providing MVCT services within the timeframe of this market review, as set out below. Based on the credibility of MVCT service provisioning over the timeframe of this market review, ComReg is of the preliminary view that the MSPs in Groups A and B below would be identified as Relevant MVCT Markets for the purposes of this market review.
- 5.17 It should also be noted in respect of each of the Relevant MVCT Markets, in each case the listed MSP is deemed to include any undertaking which it owns or controls and any undertaking which owns or controls it.
- 5.18 The listed party also includes its successors, affiliates and assigns. This means that consolidation of companies by acquisition, creation of a subsidiary or any other changes of control should not affect the list.
- 5.19 Where there is market entry or exit the list of MSPs will, however require, consideration. As noted in Section 5 of this Consultation, ComReg proposes to keep Group C MSPs under review.
- 5.20 Similarly to the FVCT Groups above, ComReg proposes three groups of MSPs for the purposes of identifying their current and prospective MVCT activity as follows:

### Group A MSPs

- 5.21 These are MSPs with mobile number allocations which set/control the MTRs in respect of such mobile numbers and are currently active in the provision of MVCT:

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<sup>733</sup> When the original assignee allows another (authorised) service provider to use the numbers. The original assignee (as the rights of use holder) remains responsible for ensuring that the numbers are used in compliance with the Numbering Conditions of Use (ComReg Document 15/136).

	<b>Group A - Mobile Service Provider</b>
1.	Vodafone
2.	eir Mobile
3.	Three
4.	Lycamobile
5.	TMI
6.	Virgin Media
7.	iD Mobile

### Group B MSPs

5.22 These are MSPs with mobile number allocations which do not currently supply MVCT but have negotiated, or have concrete plans to negotiate, interconnection with relevant wholesale partners, including MTRs to be applied, and have formal plans regarding prospective wholesale and/or retail activity.

5.23 During the analysis, no Service Providers were identified in this category.

### Group C MSPs

5.24 These are MSPs with mobile number allocations which do not currently supply MVCT and which have indicated an intention to supply MVCT over the next three years but do not currently have formal plans regarding prospective wholesale and/or retail activity.

5.25 During the analysis, no Service Providers were identified in this category.



# Annex: 6 Draft FVCT Decision Instrument

## 1 STATUTORY POWERS GIVING RISE TO THIS DECISION INSTRUMENT

- 1.1 This Decision Instrument (“Decision Instrument”) is made by the Commission for Communications Regulation (“ComReg”) and relates to the market for wholesale call termination on individual public telephone networks provided at a fixed location identified by the European Commission in its Recommendation of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation<sup>734</sup> (“the 2014 Recommendation”) and as defined by ComReg in the Response to Consultation and Decision document entitled [Title of Response to Consultation], (Document No. [INSERT]/XX), (ComReg Decision No. XX/[INSERT]).
- 1.2 This Decision Instrument is made by ComReg:
- (i) Pursuant to, and having regard to, the functions and objectives of ComReg as set out in Sections 10 and 12 of the Communications Regulation Act 2002<sup>735</sup>, as amended, Regulation 6(1) of the Access Regulations<sup>736</sup>, and Regulation 16 of the Framework Regulations<sup>737</sup>; and
  - (ii) Having taken the utmost account of the 2014 Recommendation, the Explanatory Note<sup>738</sup> and the European Commission’s Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services;<sup>739</sup> and

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<sup>734</sup> European Commission Recommendation of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (C(2014) 7174 final) (“the 2014 Recommendation”).

<sup>735</sup> Communications Regulation Act 2002 (No. 20 of 2002), as amended.

<sup>736</sup> European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011) (the “Access Regulations”).

<sup>737</sup> European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011) (the “Framework Regulations”).

<sup>738</sup> European Commission Explanatory Note accompanying the 2014 Recommendation, SWD(2014) 298 (“the Explanatory Note”).

<sup>739</sup> European Commission guidelines of 11 July 2002 on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C165/03) (OJ C 165/6) (the SMP Guidelines”).

- (iii) Having, where appropriate, pursuant to Section 13 of the Communications Regulation Act 2002, as amended, complied with the policy directions made by the Minister for Communications, Climate Action and Environment;<sup>740</sup> and
- (iv) Having taken the utmost account of the European Commission's Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU ("the Termination Rates Recommendation");<sup>741</sup> and
- (v) Having taken the utmost account of the European Commission Recommendation of 19 September 2005 on accounting separation and cost accounting systems under the regulatory framework for electronic communications (the "2005 Accounting Separation and Cost Accounting Recommendation").
- (vi) Having had regard to the market definition, market analysis and reasoning set out in. "[TO BE INSERTED]"; and
- (vii) Having taken account of the submissions received from interested parties in relation to the document entitled "[TO BE INSERTED]" following a public consultation pursuant to Regulation 12 of the Framework Regulations; and
- (viii) Having consulted with the Competition and Consumer Protection Commission further to Regulation 27 of the Framework Regulations; and
- (ix) Having notified the draft measure and the reasoning on which same is based to the European Commission, BEREC and the national regulatory authorities in other EU Member States in accordance with Regulation 13 of the Framework Regulations and having taken the utmost account pursuant to Regulation 13(6) of the Framework Regulations of any comments made by the European Commission, BEREC and any national regulatory authority in another EU Member State in accordance with Article 7(3) of the Framework Directive;<sup>742</sup> and
- (x) Pursuant to Regulations 25, 26 and 27 of the Framework Regulations and Regulations 8, 9, 10, 11, 12, 13 and 18 of the Access Regulations; and

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<sup>740</sup> Policy Directions made by Dermot Ahern TD, then Minister for Communications, Marine and Natural Resources, dated 21 February 2003 and 26 March 2004.

<sup>741</sup> European Commission Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU (2009/396/EC) (OJ L124/67).

<sup>742</sup> Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services, as amended *inter alia* by Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 (the "Framework Directive").

- (xi) The provisions of ComReg Document [INSERT IF APPLICABLE] and ComReg Document [INSERT IF APPLICABLE] shall, where appropriate, be construed with this Decision Instrument.
- 1.3 The provisions of the Consultation and Draft Decision entitled “[TO BE INSERTED]” and the Response to Consultation and Decision document entitled “[TO BE INSERTED], ComReg Document No. [INSERT]/XX, Decision No. XX/XX” shall, where appropriate, be construed with this Decision Instrument, however, if a conflict arises between the text of this Decision Instrument and Consultation “[TO BE INSERTED]” and/or Response to Consultation “[TO BE INSERTED]”, the text of this Decision Instrument shall prevail.
- 1.4 If a conflict arises between this Decision Instrument, and any other obligation imposed by ComReg (including as hereby amended), the most restrictive obligation or provision shall apply.

## **PART I - GENERAL PROVISIONS (SECTIONS 2 TO 5 OF THE DECISION INSTRUMENT)**

### **2 DEFINITIONS AND INTERPRETATION**

#### **2.1 In this Decision Instrument:**

“**Access**” shall have the same meaning as under the Access Regulations; for the purposes of this Decision Instrument it shall include (but shall not be limited to) Access to FVCT and Associated Facilities where appropriate;

“**Access Regulations**” means the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No 334 of 2011), as may be amended from time to time or replaced with equivalent effect;

“**Airspeed Communications**” means Airspeed Communications Unlimited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

“**Associated Facilities**” shall have the same meaning as the Framework Regulations, and for the purpose of this Decision Instrument shall include information on call routing, which assists and/or has the ability to assist in the provision of Access to FVCT;

“**BEREC**” means the Body of European Regulators for Electronic Communications, as established pursuant to Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009;

“**Blueface**” means Blue Face Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“BT Communications”** means BT Communications Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Colt Technology Services”** means Colt Technology Services Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“ComReg”** means the Commission for Communications Regulation, established under Section 6 of the Communications Regulation Act 2002, as amended;

**“ComReg Decision D06/07”** means Appendix A of ComReg Document 07/109 entitled “Decision Notice & Decision Instrument – Designation of SMP & SMP Obligations Market Analysis – Interconnection Market Review Fixed Wholesale Call Termination Services” dated 21 December 2007;

**“ComReg Decision DXX/XX”** means “Wholesale Voice Call Termination Services Provided at a Fixed Location, Response to Consultation and Decision, ComReg Document No. /XX, Decision XX/XX” dated XX 201;

**“ComReg Decision D07/11”** means Section 5 of ComReg Document 11/67;

**“ComReg Decision D08/10”** means ComReg Document 10/67 entitled “Response to Consultation Document and Final Direction and Decision, Response to Consultation Document No. 09/75 and Final Direction and Decision: Accounting Separation and Cost Accounting Review of Eircom Limited” dated 31 August 2010;

**“ComReg Document 11/67”** means ComReg Document 11/67, “Wholesale Call Origination and Wholesale Call Termination Markets Response to Consultation Document No. 10/76 and decisions amending price control obligations and withdrawing and further specifying transparency obligations”, dated 15 September 2011;

**“ComReg Decision D12/12”** means Annex 1 of ComReg Document 12/125 entitled “Mobile and Fixed Voice Call Termination Rates in Ireland, Response to Consultations, Decisions and Decision Instruments”, dated 21 November 2012;

**“Customer-Sited Handover”** or **“CSH”** means the connection from the Eircom network to the alternative Undertaking’s equipment in the alternative Undertaking’s premises, which includes the installation of an Eircom network termination unit at the alternative Undertaking’s premises;

**“Dialoga Servicios Interactivos”** means Dialoga Servicios Interactivos, SA and its subsidiaries, and any Undertakings which it owns or controls and any

Undertaking which owns or controls it, and its successors, affiliates and assigns.

**“Effective Date”** means the date set out in Section 16 of this Decision Instrument;

**“Eircom”** means Eircom Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Electronic Communications Network(s)”** or **“ECN(s)”** shall have the same meaning as under the Framework Regulations;

**“Electronic Communications Service(s)”** or **“ECS(s)”** shall have the same meaning as under the Framework Regulations;

**“End-User”** shall have the same meaning as under the Framework Regulations;

**“Equant Network Services”** means Equant Network Services International Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“European Economic Area countries”** or **“EEA countries”** means countries who have ratified the Agreement on the European Economic Area, which entered into force on 1 January 1994;

**“EEA Mobile Service Provider(s)”** means an undertaking operating within the EEA that provides mobile voice telephony services to its Subscribers in the EEA;

**“Finarea”** means Finarea SA and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Fixed Number”** means a number from the Irish national numbering scheme as set out in the Numbering Conditions of Use, which, within the meaning of this Decision Instrument, is terminated at a fixed location and means a Geographic Number, a Nomadic Number, or an emergency access number (112 or 999);

**“Fixed Service Provider(s)”** or **“FSP(s)”** means an Undertaking providing End-Users with publicly available voice telephony services using a Fixed Number at a fixed location, irrespective of the underlying technology over which such services are delivered;

**“Fixed Termination Rate(s)”** or **“FTR(s)”** means the wholesale charge(s) levied by a Fixed Service Provider for the supply of Fixed Voice Call Termination;

**“Fixed Voice Call Termination”** or **“FVCT”** means the provision by a Fixed Service Provider of a wholesale call termination service to other Undertakings for the purpose of terminating incoming calls to a Fixed Number in respect of which that Fixed Service Provider is able to set the Fixed Termination Rate. For the avoidance of doubt, the provision of Fixed Voice Call Termination involves the provision of an Interconnection service;

**“Framework Regulations”** means the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No 333 of 2011), as may be amended from time to time;

**“Geographic Number”** shall have the same meaning as set out in the Numbering Conditions of Use with the addition, for the purpose of this Decision Instrument, that the definition of Geographic Numbers shall include Nomadic Numbers and emergency access numbers (112 or 999);

**“Imagine Communications”** means Imagine Communications Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“In-Building Handover”** or **“IBH”** means the connection from the Eircom network to the alternative Undertaking’s equipment within the Eircom exchange, or equivalent facility;

**“In-Span Handover”** or **“ISH”** means the connection between the Eircom exchange and the alternative Undertaking’s nominated point of handover;

**“Intellicom”** means Intellicom Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Interconnection”** shall have the same meaning as under the Access Regulations;

**“Interconnection Path(s)”** means the physical transmission connection(s) between the Electronic Communications Networks of two Undertakings which allows for the carriage of calls between the respective networks;

**“Interconnection Services”** means interconnection used for services including FVCT supplied by Eircom and includes CSH, IBH, ISH, and Interconnection Paths;

**“In2com”** means In2com Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“IP Telecom”** means Internet Protocol Telecom Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Magnet Networks”** means Magnet Networks Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Magrathea Telecommunications”** means Magrathea Telecommunications (Ireland) Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Modeva Networks”** means Modeva Networks Unlimited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Nomadic Number”** has the meaning assigned in the Numbering Conditions of Use;

**“Non-Geographic Number”** has the meaning assigned in the Numbering Conditions of Use;

**“Numbering Conditions of Use”** means the set of rules under which the Irish national numbering scheme is managed and administered as set out in the document entitled *Numbering Conditions of Use and Application Process, ComReg 15/136*, as may be amended by ComReg from time to time;

**“Other Authorised Operator(s)”** or **“OAO(s)”** means an Undertaking that is not Eircom, providing or intending to provide an ECN or an ECS pursuant to the Authorisation Regulations;

**“PlanNet 21 Communications”** means PlanNet 21 Communications Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Reference Interconnect Offer”** or **“RIO”** means the offer of contract by a Fixed Service Provider to another Undertaking in respect of FVCT (and Associated Facilities) in accordance with the requirements of this Decision Instrument. The RIO sets out products, services and facilities including, but not limited to, service descriptions, associated terms and conditions and standards to be offered in accordance with the requirements of this Decision Instrument. To the extent that there is any conflict between the RIO and the obligations now set out herein, the latter shall prevail;

**“Relevant Market”** means, in the context of a particular SMP Fixed Service Provider, the specific market relating to that SMP Fixed Service Provider’s supply of FVCT as identified in Section 4(i) to (xxii) below;

**“Relevant Markets”** means all of the markets defined in Section 4 below;

**“Service Level Agreement(s)”** or **“SLA(s)”** means a legally binding contract between Eircom and OAOs in relation to the service levels which Eircom

commits to from time to time, as more particularly set out in the RIO. For the avoidance of doubt, however, to the extent that there is any conflict between the RIO, the SLAs and Eircom's obligations set out herein, it is the obligations set out here that will prevail;

**“Significant Market Power (SMP) Fixed Service Provider”** or **“SMP FSP”** means a Fixed Service Provider designated with SMP in Section 5 below as may be amended from time to time;

**“Significant Market Power Obligations”** or **“SMP Obligations”** are those obligations as more particularly described in Part II below as may be amended from time to time;

**“Subscriber”** shall have the same meaning as under Regulation 2 of the Framework Regulations;

**“Switchless Voice Service”** or **“SV Service”** means a switchless voice service which allows an operator to purchase end-to-end call conveyance services without the need to have its own Interconnection infrastructure;

**“Telcom”** means Telcom Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Undertaking(s)”** shall have the same meaning as under Regulation 2 of the Framework Regulations;

**“Verizon”** means Verizon Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Viatel”** means Viatel Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Virgin Media”** means Virgin Media Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Vodafone”** means Vodafone Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Voxbone”** means Voxbone SA and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns.



### 3 SCOPE AND APPLICATION

3.1 This Decision Instrument applies to each of the following Undertakings in respect of activities falling within the scope of the Relevant Markets defined in Section 4 of this Decision Instrument. Furthermore, this Decision Instrument is binding upon each such Undertaking in the manner now set out below and each such Undertaking shall comply with this Decision Instrument to the extent that it applies to that Undertaking.

- (i) Airspeed Communications;
- (ii) Blueface;
- (iii) BT Communications;
- (iv) Colt Technology Services;
- (v) Dialoga Servicios Interactivos;
- (vi) Eircom;
- (vii) Equant Network Services;
- (viii) Finarea;
- (ix) Imagine Communications;
- (x) Intellicom;
- (xi) In2com;
- (xii) IP Telecom;
- (xiii) Magnet Networks;
- (xiv) Magrathea Telecommunications;
- (xv) Modeva Networks;
- (xvi) PlanNet 21 Communications;
- (xvii) Telcom;
- (xviii) Verizon;
- (xix) Viatel;
- (xx) Virgin Media;
- (xxi) Vodafone;
- (xxii) Voxbone.

3.2 This Decision Instrument, pursuant to Regulations 8, 9, 10, 11, 12, 13 and 18 of the Access Regulations imposes certain obligations on Undertakings, as more particularly set out in Sections 6 to 12 of this Decision Instrument.

3.3 This Decision Instrument, pursuant to Regulations 8, 9, 10, 11, 12 and 13 of the Access Regulations also withdraws certain obligations previously imposed, as more particularly set out in Section 14 of this Decision Instrument.

#### 4 MARKET DEFINITION

4.1 This Decision Instrument relates to the market for wholesale call termination on individual public telephone networks provided at a fixed location, as identified in the 2014 Recommendation and as analysed by ComReg in ComReg **Document Number XX/**. For the purposes of this Decision Instrument, ComReg identifies twenty-two (22) separate markets as defined in Section 4.2 below (referred to in this Decision Instrument as the Relevant Market(s)).

4.2 Pursuant to Regulation 26 of the Framework Regulations and in accordance with the 2014 Recommendation and the Explanatory Note, taking the utmost account of the SMP Guidelines and in accordance with the principles of competition law, the twenty-two (22) separate Relevant Markets defined in this Decision Instrument are the markets for the provision, by each of those Fixed Service Providers listed below, of voice call termination services to the Geographic Numbers utilised by other FSP's subscribers at their respective fixed locations in Ireland to other Undertakings for the purpose of terminating incoming voice calls, as more particularly described as:

- (i) The provision by Airspeed Communications of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Airspeed Communications is able to set the FTR;
- (ii) The provision by Blueface of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers ((for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Blueface is able to set the FTR;
- (iii) The provision by BT Communications of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which BT Communications is able to set the FTR;

- (iv) The provision by Colt Technology Services of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Colt Technology Services is able to set the FTR;
- (v) The provision by Dialoga Servicios Interactivos of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Dialoga Servicios Interactivos is able to set the FTR;
- (vi) The provision by Eircom of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Eircom is able to set the FTR;
- (vii) The provision by Equant Network Services of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use ) in respect of which Equant Network Services is able to set the FTR;
- (viii) The provision by Finarea of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Finarea is able to set the FTR;
- (ix) The provision by Imagine Communications of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use ) in respect of which Imagine Communications is able to set the FTR;

- (x) The provision by Intellicom of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Intellicom is able to set the FTR;
- (xi) The provision by In2com of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which In2com is able to set the FTR;
- (xii) The provision by IP Telecom of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which IP Telecom is able to set the FTR;
- (xiii) The provision by Magnet Networks of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Magnet Networks is able to set the FTR;
- (xiv) The provision by Magrathea Telecommunications of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use ) in respect of which Magrathea Telecommunications is able to set the FTR;
- (xv) The provision by Modeva Networks of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use ) in respect of which Modeva Networks is able to set the FTR;

- (xvi) The provision by PlanNet 21 Communications of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use ) in respect of which PlanNet 21 Communications is able to set the FTR;
- (xvii) The provision by Telcom of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Telcom is able to set the FTR;
- (xviii) The provision by Verizon of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use ) in respect of which Verizon is able to set the FTR;
- (xix) The provision by Viatel of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Viatel is able to set the FTR;
- (xx) The provision by Virgin Media of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Virgin Media is able to set the FTR;
- (xxi) The provision by Vodafone of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Vodafone is able to set the FTR;

(xxii) The provision by Voxbone of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Fixed Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of) in respect of which Voxbone is able to set the FTR.

4.3 The relevant geographic market is the market covered by the network of each Fixed Service Provider but in any event the outer limit is the State.

4.4 The Relevant Markets are more particularly described in Section [...] of ComReg Document [INSERT]/XX.

## 5 DESIGNATION OF FIXED SERVICE PROVIDERS WITH SIGNIFICANT MARKET POWER (“SMP”)

5.1 Pursuant to Regulation 25 and Regulation 27 of the Framework Regulations and taking the utmost account of the SMP Guidelines, having determined that the Relevant Markets are not effectively competitive, each of the following Fixed Service Providers is individually (and not collectively) designated as having SMP in relation to the Relevant Market on which that Fixed Service Provider operates:

- (i) Airspeed Communications;
- (ii) Blueface;
- (iii) BT Communications;
- (iv) Colt Technology Services;
- (v) Dialoga Servicios Interactivos;
- (vi) Eircom;
- (vii) Equant Network Services;
- (viii) Finarea;
- (ix) Imagine Communications;
- (x) Intellicom;
- (xi) In2com;
- (xii) IP Telecom;
- (xiii) Magnet Networks;
- (xiv) Magrathea Telecommunications;
- (xv) Modeva Networks;
- (xvi) PlanNet 21 Communications;
- (xvii) Telkom;

- (xviii) Verizon;
- (xix) Viatel;
- (xx) Virgin Media;
- (xxi) Vodafone;
- (xxii) Voxbone.

## **PART II – SMP OBLIGATIONS IN RELATION TO SMP FIXED SERVICE PROVIDERS (SECTIONS 6 TO 12 OF THE DECISION INSTRUMENT)**

### **6 GENERAL PROVISIONS REGARDING SMP OBLIGATIONS**

- 6.1 For the purposes of Part II of this Decision Instrument, each of the Fixed Service Providers identified at Sections 4(i) to 45.1(xxii) above are referred to individually as the “SMP Fixed Service Provider” and collectively as the “SMP Fixed Service Providers”.
- 6.2 For the purposes of this Decision Instrument, an SMP Obligation applies to an SMP Fixed Service Provider only insofar as, and to the extent that, such SMP Fixed Service Provider is operating on its Relevant Market.

### **7 SMP OBLIGATIONS IN RELATION TO FVCT**

- 7.1 ComReg is imposing certain SMP Obligations on SMP Fixed Service Providers in accordance with and pursuant to Regulations 8, 9, 10, 11, 12, and 13 of the Access Regulations, as detailed in Sections 8 to 12 below.

### **8 OBLIGATIONS TO PROVIDE ACCESS**

- 8.1 Pursuant to Regulation 12(1) of the Access Regulations, each SMP Fixed Service Provider shall meet all reasonable requests from other Undertakings for the provision of Access.
- 8.2 Without prejudice to the generality of the obligation in Section 8.1 of this Decision Instrument and pursuant to Regulation 12(2) of the Access Regulations, each SMP Fixed Service Provider shall provide and grant Access to Undertakings to the following particular products, services and facilities:
  - (i) FVCT; and
  - (ii) Associated Facilities.
- 8.3 Without prejudice to the generality of the obligations in Sections 8.1 and 8.2, Eircom shall provide and grant Access to Undertakings to Interconnect Services, as a form of Associated Facility.
- 8.4 Without prejudice to the generality of the obligations in Sections 8.1 and 8.2 of this Decision Instrument each SMP Fixed Service Provider shall:
  - (i) Pursuant to Regulation 12(2)(b) of the Access Regulations, negotiate in good faith with Undertakings requesting Access (including Access to FVCT and Associated Facilities); and

- (ii) Pursuant to Regulation 12(2)(c) of the Access Regulations, not withdraw Access (including Access to FVCT and Associated Facilities) to facilities already granted, without prior approval of ComReg and in accordance with terms and conditions as may be determined by ComReg; and
- (iii) Pursuant to Regulation 12(2)(e) of the Access Regulations, grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services or virtual network services (including Access to FVCT and Associated Facilities).

## 9 CONDITIONS ATTACHED TO THE ACCESS OBLIGATIONS

- 9.1 Pursuant to Regulation 12(3) of the Access Regulations, each SMP Fixed Service Provider shall, in relation to the obligations set out under Section 8 above, grant Undertakings Access (including Access to FVCT and Associated Facilities) in a fair, reasonable and timely manner.
- 9.2 Where a request by an Undertaking for provision of Access (including Access to FVCT and Associated Facilities), or a request by an Undertaking for the provision of information in relation to such Access is refused or granted only in part by an SMP Fixed Service Provider, the SMP Fixed Service Provider shall, at the time of the refusal or partial grant, provide in detail to the Undertaking each of the objective reasons for such refusal or partial grant. A response to a request for Access (including Access to FVCT and Associated Facilities) shall be provided in a timely manner.
- 9.3 Without prejudice to the generality of the obligation in Section 9.1 of this Decision Instrument, pursuant to Regulation 12(3) of the Access Regulations Eircom shall, in accordance with its obligation of non-discrimination under Section 10, below, conclude, maintain or update as appropriate, legally binding and fit-for-purpose SLAs in respect of its provision of Interconnection Services.

## 10 OBLIGATION OF NON-DISCRIMINATION

- 10.1 Pursuant to Regulation 10 of the Access Regulations, each SMP Fixed Service Provider shall have an obligation of non-discrimination in respect of the provision of Access (including Access to FVCT and Associated Facilities).
- 10.2 Without prejudice to the generality of the obligation in Section 10.1 of this Decision Instrument, each SMP Fixed Service Provider shall:
- (i) Apply equivalent conditions, including in respect of FTRs or other charges, in equivalent circumstances to other Undertakings requesting or being provided with Access (including Access to FVCT and Associated Facilities), or requesting or being provided with information in relation to such Access; and



- (ii) Provide Access (including Access to FVCT and Associated Facilities) and information relating to Access to all other Undertakings under the same conditions and of the same quality as the SMP Fixed Service Provider provides to itself or to its subsidiaries, affiliates or partners.
- 10.3 For the avoidance of any doubt, the obligations set out in this Section 10 apply irrespective of whether or not a specific request for Access (including Access to FVCT and Associated Facilities) or information has been made by an Undertaking to the relevant SMP Fixed Service Provider.

## 11 OBLIGATION OF TRANSPARENCY

- 11.1 Each SMP Fixed Service Provider shall have an obligation of transparency as provided for by Regulation 9 of the Access Regulations in relation to Access, (including Access to FVCT and Associated Facilities).
- 11.2 Without prejudice to the generality of the obligation in Section 11.1 of this Decision Instrument, pursuant to Regulation 9(2) of the Access Regulations, each SMP Fixed Service Provider shall make publicly available, and keep updated on its website, a RIO.
- 11.3 The RIO shall be sufficiently unbundled so as to ensure that Undertakings availing of Access (including Access to FVCT and Associated Facilities) are not required to pay for services or facilities which are not necessary for the Access requested.
- 11.4 Without prejudice to the generality of the obligation in Section 11.2 and in accordance with the obligations specified elsewhere in this Decision, each SMP Fixed Service Provider shall ensure that its RIO includes at least the following:
- (i) A description of the offer of contract for Access (including Access FVCT and Associated Facilities) broken down into components according to market needs;
  - (ii) A description of any associated contractual or other terms and conditions for Access (including Access to FVCT and Associated Facilities) and use, including FTRs and other prices and charges; and
  - (iii) A description of the technical specifications and network characteristics of the Access (including Access to FVCT and Associated Facilities) being offered.
- 11.5 Each SMP Fixed Service Provider, other than Eircom, shall publish its RIO within 90 days of the Effective Date.
- 11.6 Without prejudice to the generality of the obligations in Section 11.1 to 11.4, pursuant to Regulation 9(1) and 9(4) of the Access Regulations, each SMP Fixed Service Provider shall make its FTRs publicly available and shall publish such FTRs in an easily accessible manner on its publicly available website. Each SMP Fixed Service Provider shall, unless otherwise agreed with ComReg:

- (i) Publish a notice of its intention to amend its FTR(s) not less than 30 (thirty) calendar days in advance of the date on which any such amendment comes into effect. Such notice shall, at least, include a statement of the existing FTR(s), a description of the proposed new FTR(s) and the date on which such new FTR(s) are proposed to come into effect;
  - (ii) Provide Undertakings with which it has entered into a contract in respect of Access, written notification of its intention to amend its FTR(s) not less than 30 (thirty) calendar days in advance of the date on which any such amendment comes into effect. Such notification shall at least include a statement of the existing FTR(s), a description of the proposed new FTR(s) and the date on which such new FTR(s) are proposed to come into effect; and
  - (iii) Provide ComReg with written notification of its intention to amend its FTR(s) not less than 60 (sixty) calendar days in advance of the date on which any such amendments come into effect. At the time of such notification each SMP Fixed Service Provider shall furnish to ComReg a statement confirming that its proposed amended FTR(s) comply with Section 12 of this Decision Instrument.
- 11.7 Pursuant to Regulation 9 of the Access Regulations, Eircom shall make publicly available and publish within its RIO the non-price terms, conditions, Service Level Agreements, guarantees and other product related assurances associated with those services and facilities described in Sections 8 and 9 which form part of any offer or provision of a SV Service to any other Undertaking.
- 11.8 Pursuant to Regulation 9(3) of the Access Regulations, ComReg may issue directions requiring an SMP Fixed Service Provider to make amendments to the RIO to give effect to obligations imposed in this Decision Instrument and to publish the RIO with such amendments, with or without complying with the transparency timelines as ComReg may agree. In accordance with Regulation 18 of the Access Regulations, ComReg may issue directions to an SMP Fixed Service Provider from time to time requiring it to publish specified information, such as accounting information, technical specifications, network characteristics, prices, and terms and conditions for supply and use, including any conditions limiting access to or use of services and applications where such conditions are permitted by law.
- 12 OBLIGATION RELATING TO PRICE CONTROL AND COST ACCOUNTING (ALTERNATE APPROACHES PROPOSED)**
- 12.1 [PROPOSED TEXT IF DISTINCTION DRAWN FOR NON-EEA ORIGINATED CALLS]**

Pursuant to Regulation 13(1) of the Access Regulations, and subject to Section 12.2 of this Decision Instrument, each SMP Fixed Service Provider is subject to a cost orientation obligation as regards FTRs and prices charged by that SMP Fixed Service Provider to any other Undertaking for Access to or use of those products, services or facilities referred to in Section 8 of this Decision Instrument.

12.2 The cost-orientation obligation imposed at Section 12.1, to the extent that it applies to FTRs, does not apply to calls originated outside of the EEA, unless the call is originated by a Subscriber of an EEA Mobile Service Provider while roaming in non-EEA countries. Furthermore, the cost-orientation obligation imposed at Section 12.1, to the extent that it applies to FTRs, does not apply to calls originated inside of the EEA where the caller is a Subscriber of a non-EEA MSP who is roaming in the EEA.]

12.1 **[PROPOSED TEXT IF NO DISTINCTION DRAWN FOR NON-EEA ORIGINATED CALLS**

Pursuant to Regulation 13(1) of the Access Regulations each SMP Fixed Service Provider is subject to a cost-orientation obligation as regards FTRs and prices charged by that SMP Fixed Service Provider to any other Undertaking for Access to or use of those products, services or facilities referred to in Section 8 of this Decision Instrument.]

12.2 Pursuant to Regulation 13(1) of the Access Regulations, Eircom shall continue to comply with all of the obligations in relation to cost accounting set out in Annex 1 and 2 of ComReg Decision D08/10 and in force immediately prior to the Effective Date of this Decision Instrument which relate to the Relevant Market.

**PART III - OBLIGATIONS AND EFFECTIVE DATE (SECTIONS 13 TO 16 OF THE DECISION INSTRUMENT)**

**13 STATUTORY POWERS NOT AFFECTED**

13.1 Nothing in this Decision Instrument shall operate to limit ComReg in the exercise and performance of its statutory powers or duties conferred on it from time to time under any primary or secondary legislation (in force prior to or after the effective date of this Decision Instrument).

**14 WITHDRAWAL OF SMP OBLIGATIONS**

14.1 Pursuant to Regulations 8, 9, 10, 11, 12 and 13 of the Access Regulations, the following Decision Instruments, and/or ComReg Documents and/or Decisions are hereby withdrawn, and are replaced with the obligations in this Decision Instrument:

- (i) ComReg Decision D06/07;

- (ii) The Decision Instrument entitled “Wholesale Call Termination” located at section 5 of ComReg Document 11/67 and part of ComReg Decision D07/11; and
- (iii) Annex: 1 Decision Instrument: Fixed Voice Call Termination” of ComReg Decision D12/12.

## 15 MAINTENANCE OF OBLIGATIONS

- 15.1 Unless expressly stated otherwise in this Decision Instrument, all obligations and requirements contained in Decision Instruments, Decision Notices and Directions made by ComReg applying to each SMP Fixed Service Provider and in force immediately prior to the Effective Date of this Decision Instrument, are continued in force by this Decision Instrument and each SMP Fixed Service Provider shall comply with same.
- 15.2 If any section, clause or provision or portion thereof contained in this Decision Instrument is found to be invalid or prohibited by the Constitution, by any other law or judged by a court to be unlawful, void or unenforceable, that section, clause or provision or portion thereof shall, to the extent required, be severed from this Decision Instrument and rendered ineffective as far as possible without modifying the remaining section(s), clause(s) or provision(s) or portion thereof of this Decision Instrument, and shall not in any way affect the validity or enforcement of this Decision Instrument.

## 16 EFFECTIVE DATE

- 16.1 The Effective Date of this Decision Instrument shall be the date of its publication and notification to each SMP Fixed Service Provider and it shall remain in force until further notice by ComReg.

**GERRY FAHY**

**CHAIRPERSON AND COMMISSIONER**

**THE COMMISSION FOR COMMUNICATIONS REGULATION**

**THE [...] DAY OF [...] 2017**

# Annex: 7 Draft MVCT Decision Instrument

## 1 STATUTORY POWERS GIVING RISE TO THIS DECISION INSTRUMENT

1.1 This Decision Instrument (“Decision Instrument”) is made by the Commission for Communications Regulation (“ComReg”) and relates to the market for voice call termination on individual mobile networks as identified by the European Commission in its Recommendation of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation<sup>743</sup> (“the 2014 Recommendation”) and as analysed by ComReg in the document entitled **[[Title of Response to Consultation], (Document No. [INSERT]/XX), (ComReg Decision No. XX/[INSERT])**

1.2 This Decision Instrument is made:

- (iv) Pursuant to, and having regard to, the functions and objectives of ComReg as set out, in particular, in Sections 10 and 12 of the Communications Regulation Act 2002,<sup>744</sup> as amended, and Regulation 6(1) of the Access Regulations<sup>745</sup> and Regulation 16 of the Framework Regulations;<sup>746</sup> and
- (v) Having taken the utmost account of the 2014 Recommendation, the Explanatory Note<sup>747</sup> and the European Commission’s Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services;<sup>748</sup> and

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<sup>743</sup> European Commission Recommendation of 9 October 2014 on relevant product and service markets within the electronic communications sector susceptible to *ex ante* regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (C(2014) 7174 final) (“the 2014 Recommendation”).

<sup>744</sup> Communications Regulation Act 2002 (No. 20 of 2002), as amended.

<sup>745</sup> European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No. 334 of 2011) (the “Access Regulations”).

<sup>746</sup> European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011) (the “Framework Regulations”).

<sup>747</sup> European Commission Explanatory Note accompanying the 2014 Recommendation, SWD (2014) 298 (“the Explanatory Note”).

<sup>748</sup> European Commission guidelines of 11 July 2002 on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services (2002/C165/03) (OJ C 165/6) (the SMP Guidelines”).

- (vi) Having, where appropriate, pursuant to Section 13 of the Communications Regulation Act 2002, as amended, complied with the policy directions made by the Minister for Communications, Climate Action and Environment;<sup>749</sup> and
- (vii) Having taken the utmost account of the European Commission's Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU ("the Termination Rates Recommendation");<sup>750</sup> and
- (viii) Having taken the utmost account of the European Commission Recommendation of 19 September 2005 on accounting separation and cost accounting systems under the regulatory framework for electronic communications (the "2005 Accounting Separation and Cost Accounting Recommendation").<sup>751</sup>
- (ix) Having had regard to the market definition, market analysis and reasoning set out in [TO BE INSERTED]; and
- (x) Having taken account of the submissions received from interested parties in relation to ComReg Document No. [TO BE INSERTED] following a public consultation pursuant to Regulation 12 of the Framework Regulations; and
- (xi) Having consulted with the Competition and Consumer Protection Commission further to Regulation 27 of the Framework Regulations; and
- (xii) Having notified the draft measure and the reasoning on which same is based to the European Commission, BEREC and the national regulatory authorities in other EU Member States in accordance with Regulation 13 of the Framework Regulations and having taken the utmost account pursuant to Regulation 13(6) of the Framework Regulations of any comments made by the European Commission, BEREC and any national regulatory authority in another EU Member State in accordance with Article 7(3) of the Framework Directive;<sup>752</sup> and

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<sup>749</sup> Policy Directions made by Dermot Ahern TD, then Minister for Communications, Marine and Natural Resources, dated 21 February 2003 and 26 March 2004.

<sup>750</sup> European Commission Recommendation of 7 May 2009 on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU (2009/396/EC) (OJ L124/67).

<sup>751</sup> European Commission Recommendation of 19 September 2005 on accounting separation and cost accounting systems under the regulatory framework for electronic communications (2005/698/EC) (the "2005 Accounting Separation and Cost Accounting Recommendation").

<sup>752</sup> Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services, as amended *inter alia* by Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009 (the "Framework Directive").

- (xiii) Pursuant to Regulations 25, 26 and 27 of the Framework Regulations and Regulations 8, 9, 10, 12, 13 and 18 of the Access Regulations.
- (xiv) The provisions of ComReg Document No. [INSERT IF APPLICABLE] and ComReg Document No. [INSERT IF APPLICABLE] shall, where appropriate, be construed with this Decision Instrument.
- 1.3 The provisions of the Consultation and Draft Decision entitled “[TO BE INSERTED]”, the Response to Consultation and Decision document entitled “[TO BE INSERTED], ComReg Document No. [INSERT]/XX, Decision No. XX/XX” shall, where appropriate, be construed with this Decision Instrument, however, if a conflict arises between the text of this Decision Instrument and Consultation “[TO BE INSERTED]” and/or Response to Consultation “[TO BE INSERTED]”, the text of this Decision Instrument shall prevail.
- 1.4 If a conflict arises between this Decision Instrument, and any other obligation imposed by ComReg (including as hereby amended), the most restrictive obligation or provision shall apply.

## **PART I - GENERAL PROVISIONS (SECTIONS 2 TO 5 OF THE DECISION INSTRUMENT)**

### **2 DEFINITIONS AND INTERPRETATION**

#### **2.1 In this Decision Instrument:**

“**Access**” shall have the same meaning as under the Access Regulations; for the purposes of this Decision Instrument it shall include (but shall not be limited to) Access to MVCT and Associated Facilities where appropriate;

“**Access Regulations**” means the European Communities (Electronic Communications Networks and Services) (Access) Regulations 2011 (S.I. No 334 of 2011), as may be amended from time to time or replaced with equivalent effect;

“**Associated Facilities**” shall have the same meaning as the Framework Regulations and for the purpose of this Decision Instrument shall include information on call routing, which assists and/or has the ability to assist in the provision of Access to MVCT;

“**Authorisation Regulations**” means the European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011 (S.I. No 335 of 2011), as may be amended from time to time or replaced with equivalent effect;

“**BEREC**” means the Body of European Regulators for Electronic Communications, as established pursuant to Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009;

**“ComReg”** means the Commission for Communications Regulation, established under Section 6 of the Communications Regulation Acts 2002 as amended;

**“ComReg Decision D11/12”** means Annex I of ComReg Document 12/124 entitled “Market Review: Voice Call Termination on Individual Mobile Networks, Response to Consultation and Decision Notice”, dated 21 November 2012,

**“ComReg Decision D12/12”** means Annex 2 of ComReg Document 12/125 entitled “Mobile and Fixed Voice Call Termination Rates in Ireland, Response to Consultations, Decisions and Decision Instruments”, dated 21 November 2012,

**“ComReg Decision D02/16”** means Annex 1 of ComReg Document 16/09 entitled “Mobile Termination Rates Response to Consultation 14/29 and Supplementary Consultation 15/19 and Decision Document”, dated 12 February 2016,

**“Effective Date”** means the date set out in Section 16 of this Decision Instrument;

**“Electronic Communications Network”** or **“ECN”** shall have the same meaning as under the Framework Regulations;

**“Electronic Communications Service”** or **“ECS”** shall have the same meaning as under the Framework Regulations;

**“End-User”** shall have the same meaning as under the Framework Regulations;

**“European Economic Area countries”** or **“EEA countries”** means countries who have ratified the Agreement on the European Economic Area, which entered into force on 1 January 1994.

**“EEA Mobile Service Provider(s)”** means an undertaking operating within the EEA that provides mobile voice telephony services to its Subscribers in the EEA;

**“Framework Regulations”** means the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No 333 of 2011), as may be amended from time to time or replaced with equivalent effect;

**“iD Mobile”** means Carphone Warehouse Ireland Mobile Limited, trading as iD Mobile, and its subsidiaries, and any Undertaking which it owns or controls and any undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Interconnection”** shall have the same meaning as under the Access Regulations;



**“Lycamobile”** means Lycamobile Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Meteor”** means Meteor Mobile Communications Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns<sup>753</sup>;

**“Mobile Network”** means a 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, or 5<sup>th</sup> Generation digital wireless network, or any intermediate evolution of those, using Mobile Numbers, in which seamless handover and roaming features are provided;

**“Mobile Number(s)”** shall have the same meaning as set out in the Numbering Conditions of Use, as may be amended from time to time;

**“Mobile Service Provider(s)”** or **“MSP(s)”** means an Undertaking providing End-Users with land based/terrestrial publicly available mobile voice telephony services using a Mobile Network;

**“Mobile Termination Rate(s)”** or **“MTR(s)”** means the wholesale charge(s) levied by a Mobile Service Provider for the supply of Mobile Voice Call Termination;

**“Mobile Voice Call Termination”** or **“MVCT”** means the provision by a Mobile Service Provider of a wholesale call termination service to other Undertakings for the purpose of terminating incoming voice calls to a Mobile Number in respect of which that Mobile Service Provider is able to set the Mobile Termination Rate. For the avoidance of doubt, the provision of Mobile Voice Call Termination involves the provision of an Interconnection service;

**“Numbering Conditions of Use”** means the set of rules under which the Irish national numbering scheme is managed and administered as set out in the document entitled *Numbering Conditions of Use and Application Process*, ComReg 15/136, as may be amended by ComReg from time to time;

**“Reference Interconnect Offer”** or **“RIO”** means the offer of contract by a Service Provider to another Undertaking in respect of MVCT (and Associated Facilities) in accordance with the requirements of this Decision Instrument. The RIO sets out products, services and facilities including, but not limited to, service descriptions, associated terms and conditions and standards to be offered in accordance with the requirements of this Decision Instrument. To the

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<sup>753</sup> Meteor announced in July 2017 that its branding would be retired and replaced with Eircom branding from September 2017. At present Meteor is the licensed Mobile Service Provider and so for the purposes of this draft Decision Instrument, ComReg has continued to refer to Meteor, however this position may be amended in the final Decision Instrument should Eircom Limited, or some other Undertaking, become a successor or assign of Meteor or in any other way the appropriate Undertaking to be designated with SMP.

extent that there is any conflict between the RIO and the obligations now set out herein, the latter shall prevail;

**“Relevant Market”** means, in the context of a particular SMP Mobile Service Provider, the specific market relating to that SMP Mobile Service Provider’s supply of MVCT as identified in Sections 4.2(i) to (vii) below;

**“Relevant Markets”** means all of the markets defined in Section 4.2 below;

**“Significant Market Power (SMP) Mobile Service Provider” or “SMP MSP”** refers to a Mobile Service Provider designated with SMP in Section 5 below as may be amended from time to time;

**“Significant Market Power Obligations” or “SMP Obligations”** are those obligations as more particularly described in Part II below as may be amended from time to time;

**“Subscriber(s)”** shall have the same meaning as under Regulation 2 of the Framework Regulations;

**“Tesco Mobile”** means Tesco Mobile Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;;

**“Three”** means Three Ireland (Hutchison) Limited and its subsidiaries, and any undertaking which it owns or controls and any undertaking which owns or controls it, and its successors, affiliates and assigns, which for the avoidance of doubt includes Three Ireland Services (Hutchison) Limited;

**“Undertaking(s)”** shall have the same meaning as under the Framework Regulations;

**“Virgin Media”** means Virgin Media Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns;

**“Vodafone”** means Vodafone Ireland Limited and its subsidiaries, and any Undertaking which it owns or controls and any Undertaking which owns or controls it, and its successors, affiliates and assigns.

### 3 SCOPE AND APPLICATION

3.1 This Decision Instrument applies to each of the following Undertakings in respect of activities falling within the scope of the Relevant Markets defined in Section 4 of this Decision Instrument. Furthermore, this Decision Instrument is binding upon each such Undertaking in the manner now set out below and each such Undertaking shall comply with this Decision Instrument to the extent that it applies to that Undertaking.

- (i) iD Mobile;
- (ii) Lycamobile;

- (iii) Meteor;
  - (iv) Tesco Mobile;
  - (v) Three;
  - (vi) Virgin Media; and
  - (vii) Vodafone.
- 3.2 This Decision Instrument, pursuant to Regulations 8, 9, 10, 12, 13 and 18 of the Access Regulations imposes certain obligations on Undertakings, as more particularly set out in Sections 6 to 12 of this Decision Instrument.
- 3.3 This Decision Instrument, pursuant to Regulations 8, 9, 10, 11, 12 and 13 of the Access Regulations also withdraws certain obligations previously imposed, as more particularly set out in Section 4 of this Decision Instrument.

#### 4 MARKET DEFINITION

- 4.1 This Decision Instrument relates to the market for wholesale voice call termination on individual mobile networks, as identified in the 2014 Recommendation and as analysed by ComReg in the document entitled *Market Review: [INSERT TITLE]*. For the purposes of this Decision Instrument, ComReg identifies seven (7) separate markets as defined in Section 4.2 below (referred to in this Decision Instrument as the Relevant Market(s)).
- 4.2 Pursuant to Regulation 26 of the Framework Regulations and in accordance with the 2014 Recommendation and the Explanatory Note, taking the utmost account of the SMP Guidelines and in accordance with the principles of competition law, the seven (7) separate Relevant Markets defined in this Decision Instrument are the markets for the provision, by each of those Mobile Service Providers below, of wholesale mobile voice call termination services in Ireland (in so far as each Mobile Service Provider's network covers) to other Service Providers, for the purpose of terminating incoming voice calls to Mobile Numbers, and in respect of which that Mobile Service Provider is able to set the Mobile Termination Rate, as more particularly described as:
- (i) The provision by iD Mobile of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Mobile Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which iD Mobile is able to set the MTR; and

- (ii) The provision by Lycamobile of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Mobile Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Lycamobile is able to set the MTR; and
  - (iii) The provision by Meteor of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Mobile Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use ) in respect of which Meteor is able to set the MTR; and
  - (iv) The provision by Tesco Mobile of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Mobile Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Tesco Mobile is able to set the MTR; and
  - (v) The provision by Three of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Mobile Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Three is able to set the MTR; and
  - (vi) The provision by Virgin Media of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Mobile Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Virgin Media is able to set the MTR; and
  - (vii) The provision by Vodafone of a wholesale service to other Undertakings for the purpose of terminating incoming voice calls to Mobile Numbers (for which the rights of use have been granted by ComReg, or transferred from another Undertaking, in accordance with the stipulations set out in the Numbering Conditions of Use) in respect of which Vodafone is able to set the MTR.
- 4.3 The relevant geographic market corresponds to the geographic coverage of each individual Mobile Service Provider's network, but in any event the outer limit is the State. Accordingly, the relevant geographic market for each of the seven product markets defined in section 4.2 above is national.

4.4 The Relevant Markets are more particularly described in Section 5 of the document entitled *Market Review: [INSERT TITLE]*

## 5 DESIGNATION OF MOBILE SERVICE PROVIDERS WITH SIGNIFICANT MARKET POWER (“SMP”)

5.1 Pursuant to Regulation 25 and Regulation 27 of the Framework Regulations and taking the utmost account of the SMP Guidelines, having determined that the Relevant Markets are not effectively competitive, each of the following Mobile Service Providers is individually (and not collectively) designated as having SMP, to the extent that such SMP Mobile Service Provider is operating on its Relevant Market:

- (i) iD Mobile;
- (ii) Lycamobile;
- (iii) Meteor;
- (iv) Tesco Mobile;
- (v) Three;
- (vi) Virgin Media; and
- (vii) Vodafone.

## **PART II - SMP OBLIGATIONS IN RELATION TO SMP MOBILE SERVICE PROVIDERS (SECTIONS 6 TO 12 OF THE DECISION INSTRUMENT)**

### 6 GENERAL PROVISIONS REGARDING SMP OBLIGATIONS

6.1 For the purposes of Part II of this Decision Instrument, each of the Mobile Service Providers identified at Sections 5.1(i) to 5.1(vii) above are referred to individually as the “SMP Mobile Service Provider” and collectively as the “SMP Mobile Service Providers”.

6.2 For the purposes of this Decision Instrument, an SMP Obligation applies to an SMP Mobile Service Provider only insofar as, and to the extent that, such SMP Mobile Service Provider is operating on its Relevant Market.

### 7 SMP OBLIGATIONS IN RELATION TO MVCT

7.1 ComReg is imposing certain SMP Obligations on SMP Mobile Service Providers in accordance with and pursuant to Regulations 8, 9, 10, 12, and 13 of the Access Regulations, as detailed further in Sections 8 to 12 below.

### 8 OBLIGATIONS TO PROVIDE ACCESS

8.1 Pursuant to Regulation 12(1) of the Access Regulations, each SMP Mobile Service Provider shall meet all reasonable requests from other Undertakings for the provision of Access.

- 8.2 Without prejudice to the generality of the obligation in Section 8.1 and pursuant to Regulation 12(2) of the Access Regulations, each SMP Mobile Service Provider shall provide and grant Access to Undertakings to the following particular services and facilities:
- (i) MVCT;
  - (ii) Associated Facilities.
- 8.3 Without prejudice to the generality of Sections 8.1 and 8.2, each SMP Mobile Service Provider shall:
- (i) Pursuant to Regulation 12(2)(b) of the Access Regulations, negotiate in good faith with Undertakings requesting Access (including Access to MVCT and Associated Facilities); and
  - (ii) Pursuant to Regulation 12(2)(c) of the Access Regulations, not without the prior approval of ComReg withdraw Access (including Access to MVCT and Associated Facilities) already granted; and
  - (iii) Pursuant to Regulation 12(2)(e) of the Access Regulations, grant open access to technical interfaces, protocols and other key technologies that are indispensable for the interoperability of services or virtual network services (including Access to MVCT and Associated Facilities).

## 9 CONDITIONS ATTACHED TO THE ACCESS OBLIGATIONS

- 9.1 Pursuant to Regulation 12(3) of the Access Regulations, each SMP Mobile Service Provider shall, in relation to the obligations set out under Section 8 above, grant Undertakings Access (including Access to MVCT and Associated Facilities) in a fair, reasonable and timely manner.
- 9.2 Where a request by an Undertaking for provision of Access (including Access to MVCT and Associated Facilities), or a request by an Undertaking for the provision of information in relation to such Access is refused or granted only in part by an SMP Mobile Service Provider, the SMP Mobile Service Provider shall, at the time of the refusal or partial grant, provide in detail to the Undertaking each of the objective reasons for such refusal or partial grant.

## 10 OBLIGATION OF NON-DISCRIMINATION

- 10.1 Pursuant to Regulation 10 of the Access Regulations, each SMP Mobile Service Provider shall have an obligation of non-discrimination in respect of the provision of Access (including Access to MVCT and Associated Facilities).
- 10.2 Without prejudice to the generality of Section 10.1, each SMP Mobile Service Provider shall:

- (i) Apply equivalent conditions, including in respect of MTRs or other charges, in equivalent circumstances to other Undertakings requesting or being provided with Access (including Access to MVCT and Associated Facilities) or requesting or being provided with information in relation to such Access; and
  - (ii) Provide Access (including Access to MVCT and Associated Facilities) and information in relation to such Access to all other Undertakings under the same conditions and of the same quality as the SMP Mobile Service Provider provides to itself or to its subsidiaries, affiliates or partners.
- 10.3 For the avoidance of any doubt, the obligations set out in this Section 10 apply irrespective of whether or not a specific request for Access (including Access to MVCT and Associated Facilities) or information in relation to such Access has been made by an Undertaking to the relevant SMP Mobile Service Provider.

## 11 OBLIGATION OF TRANSPARENCY

- 11.1 Each SMP Mobile Service Provider shall have an obligation of transparency as provided for by Regulation 9 of the Access Regulations in relation to Access (including Access to MVCT and Associated Facilities).
- 11.2 Without prejudice to the generality of the obligation in Section 11.1, pursuant to Regulation 9(2) of the Access Regulations, each SMP Mobile Service Provider shall make publicly available, and keep updated on its website, a RIO.
- 11.3 The RIO shall be sufficiently unbundled so as to ensure that Undertakings availing of Access (including Access to MVCT and Associated Facilities) are not required to pay for services or facilities which are not necessary for the Access requested.
- 11.4 Without prejudice to the generality of the obligation in Section 11.1 and 11.2 and in accordance with the obligations specified elsewhere in this Decision, each SMP Mobile Service Provider shall ensure that its RIO includes at least the following:
- (i) A description of the offer of contract for Access (including Access to MVCT and Associated Facilities) broken down into components according to market needs; and
  - (ii) A description of any associated contractual or other terms and conditions for Access (including Access to MVCT and Associated Facilities) including MTRs and other prices and charges; and
  - (iii) A description of the technical specifications and network characteristics of the Access (including Access to MVCT and Associated Facilities) being offered.
- 11.5 Virgin Media and iD Mobile shall publish their RIO within 90 (ninety) calendar days of the Effective Date.

11.6 Without prejudice to the generality of the obligations in Section 11.1 to 11.4, pursuant to Regulation 9(1) and 9(4) of the Access Regulations, each SMP Mobile Service Provider shall make its MTRs publicly available and shall publish such MTRs in an easily accessible manner on its publicly available website. Each SMP Mobile Service Provider shall, unless otherwise agreed with ComReg:

- (i) Publish a notice of its intention to amend its MTR(s) not less than 30 (thirty) calendar days in advance of the date on which any such amendment comes into effect. Such notice shall at least include a statement of the existing MTR(s), a description of the proposed new MTR(s) and the date on which such new MTR(s) are proposed to come into effect; and
- (ii) Provide Undertakings with which it has entered into a contract in respect of Access, written notification of its intention to amend its MTR(s) not less than 30 (thirty) calendar days in advance of the date on which any such amendment comes into effect. Such notification shall at least include a statement of the existing MTR(s), a description of the proposed new MTR(s) and the date on which such new MTR(s) are proposed to come into effect.

11.7 Provide ComReg with written notification of its intention to amend its MTR(s) not less than 60 (sixty) calendar days in advance of the date on which any such amendments come into effect. At the time of such notification each SMP Mobile Service Provider shall furnish to ComReg a statement confirming that its proposed amended MTR(s) comply with Section 12 of this Decision Instrument. Pursuant to Regulation 9(3) of the Access Regulations, ComReg may issue directions requiring an SMP Mobile Service Provider to make amendments to the RIO to give effect to obligations imposed in this Decision Instrument and to publish the RIO with such amendments. In accordance with Regulation 18 of the Access Regulations, ComReg may issue directions to an SMP Mobile Service Provider from time to time requiring it to publish specified information, such as accounting information, technical specifications, network characteristics, prices, and terms and conditions for supply and use, including any conditions limiting access to or use of services and applications where such conditions are permitted by law.

## 12 OBLIGATION RELATING TO PRICE CONTROL (ALTERNATE APPROACHES PROPOSED)

### 12.1 [PROPOSED TEXT IF DISTINCTION DRAWN FOR NON-EEA ORIGINATED CALLS]



Pursuant to Regulation 13(1) of the Access Regulations, and subject to Section 12.2 of this Decision Instrument, each SMP Mobile Service Provider is subject to a cost-orientation obligation as regards MTRs and prices charged by that SMP Mobile Service Provider to any other Undertaking for Access to or use of those products, services or facilities referred to in Section 8 of this Decision Instrument.

12.2 The cost-orientation obligation imposed at Section 12.1, to the extent that it applies to MTRs, does not apply to calls originated outside of the EEA, unless the call is originated by a Subscriber of EEA Mobile Service Provider while roaming in non-EEA countries. Furthermore, the cost-orientation obligation imposed at Section 12.1, to the extent that it applies to MTRs, does not apply to calls originated inside of the EEA where the caller is a Subscriber of a non-EEA MSP who is roaming in the EEA.]

12.1 **[PROPOSED TEXT IF NO DISTINCTION DRAWN FOR NON-EEA ORIGINATED CALLS**

Pursuant to Regulation 13(1) of the Access Regulations each SMP Mobile Service Provider is subject to a cost-orientation obligation as regards MTRs and prices charged by that SMP Mobile Service Provider to any other Undertaking for Access to or use of those products, services or facilities referred to in Section 8 of this Decision Instrument.]

**PART III - OBLIGATIONS AND EFFECTIVE DATE (SECTIONS 13 TO 16 OF THE DECISION INSTRUMENT)**

**13 STATUTORY POWERS NOT AFFECTED**

13.1 Nothing in this Decision Instrument shall operate to limit ComReg in the exercise and performance of its statutory powers or duties conferred on it from time to time under any primary or secondary legislation (in force prior to or after the Effective Date of this Decision Instrument).

**14 WITHDRAWAL OF OBLIGATIONS**

14.1 Pursuant to Regulations 8, 9, 10, 11, 12 and 13 of the Access Regulations, the following Decision Instruments, and/or ComReg Documents and/or Decisions are hereby withdrawn, and are replaced with the obligations in this Decision Instrument when this Decision Instrument takes effect:

- (i) ComReg Decision 11/12;
- (ii) ComReg Decision D12/12;
- (iii) ComReg Decision D02/16.

## 15 MAINTENANCE OF OBLIGATIONS

- 15.1 Unless expressly stated otherwise in this Decision Instrument, all obligations and requirements contained in Decision Instruments, Decision Notices and Directions made by ComReg applying to each SMP Mobile Service Provider and in force immediately prior to the Effective Date of this Decision Instrument, are continued in force by this Decision Instrument and each SMP Mobile Service Provider shall comply with same.
- 15.2 If any section, clause or provision or portion thereof contained in this Decision Instrument is found to be invalid or prohibited by the Constitution, by any other law or judged by a court to be unlawful, void or unenforceable, that section, clause or provision or portion thereof shall, to the extent required, be severed from this Decision Instrument and rendered ineffective as far as possible without modifying the remaining section(s), clause(s) or provision(s) or portion thereof of this Decision Instrument, and shall not in any way affect the validity or enforcement of this Decision Instrument.

## 16 EFFECTIVE DATE

- 16.1 The Effective Date of this Decision Instrument shall be the date of its publication and notification to each SMP Mobile Service Provider and it shall remain in force until further notice by ComReg.

**GERRY FAHY**

**CHAIRPERSON AND COMMISSIONER**

**THE COMMISSION FOR COMMUNICATIONS REGULATION**

**THE [ ... ] DAY OF [ ... ] 2017**

## Annex: 8 List of Consultation Questions

**Q. 1.** Do you agree that this Section identifies the main relevant developments in the retail fixed voice and mobile voice markets since the previous reviews of the Relevant FVCT and MVCT Markets? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Q. 2.** Do you agree with ComReg's preliminary conclusions on the retail product and geographic market assessment to the extent that it informs the analysis of the Relevant FVCT Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual or other evidence supporting your views.

**Q. 3.** Do you agree with ComReg's preliminary conclusions on the retail product and geographic market assessment to the extent that it informs the analysis of the Relevant MVCT Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual or other evidence supporting your views.

**Q. 4.** Do you agree with ComReg's preliminary conclusions on the wholesale FVCT product market and geographic market definition assessment? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Q. 5.** Do you agree with ComReg's preliminary conclusions on the wholesale MVCT product market and geographic market definition assessment? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Q. 6.** Do you agree with ComReg's assessment of SMP in the Relevant FVCT Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Q. 7.** Do you agree with ComReg's assessment of SMP in the Relevant MVCT Markets? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Q. 8.** Do you agree that the competition problems and the associated impacts on competition and consumers which are identified in this Section are those which could potentially arise in the Relevant FVCT Markets? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Q. 9.** Do you agree that the competition problems and the associated impacts on competition and consumers which are identified in this Section are those which could potentially arise in the Relevant MVCT Markets? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Q. 10.** Do you agree with ComReg's approach to imposing remedies in the Relevant FVCT Markets? Are there other approaches that would better address the identified competition problems? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Q. 11.** Do you agree with ComReg's draft FVCT Decision Instrument set out in Appendix 6? Do you agree with ComReg's definitions and interpretations as set out in these draft Decision Instruments? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer.

**Q. 12.** Do you agree with ComReg's approach to imposing remedies in the Relevant MVCT Markets? Are there other approaches that would better address the identified competition problems? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your views.

**Q. 13.** Do you agree with ComReg's draft MVCT Decision Instrument set out in Appendix 7? Do you agree with ComReg's definitions and interpretations as set out in these draft Decision Instruments? Please explain the reason for your answer, clearly indicating the relevant paragraph numbers to which your comments refer.

**Q. 14.** In respect of the potential alternative approaches for price control obligations on the application of WVCT to calls originated outside the EEA, please indicate which approach would better address the identified competition problems. Please explain the reason for your answer, providing any empirical evidence and clearly indicating the relevant paragraph numbers to which your comments refer.

**Q. 15.** Do you agree with ComReg's preliminary conclusions on the Regulatory Impact Assessment, in respect of FVCT? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your position.

**Q. 16.** Do you agree with ComReg's preliminary conclusions on the Regulatory Impact Assessment, in respect of MVCT? Please explain the reasons for your answer, clearly indicating the relevant paragraph numbers to which your comments refer, along with all relevant factual evidence supporting your position.

## Annex: 9 Glossary of terms

Acronym	Full Title
<b>BEREC</b>	Body of European Regulators for Electronic Communications
<b>BU-LRIC</b>	Bottom-up Long-Run Incremental Cost
<b>CATI</b>	Computer Aided Telephone Interview
<b>CBP</b>	Countervailing Buyer Power
<b>CO</b>	Call Origination
<b>CPP</b>	Calling Party Pays
<b>CSH</b>	Customer-Sited Handover
<b>DSL</b>	Digital Subscriber Line
<b>EC</b>	European Commission
<b>EEA</b>	European Economic Area
<b>EU</b>	European Union
<b>FA</b>	Fixed Access
<b>FACO</b>	Fixed Access and Call Origination
<b>FSP</b>	Fixed Service Provider
<b>FTR</b>	Fixed Termination Rate
<b>FTTP</b>	Fibre to the Premises
<b>FTTx</b>	Fibre to the .....
<b>FVCO</b>	Fixed Voice Call Origination
<b>FVCT</b>	Fixed Voice Call Termination
<b>FWA</b>	Fixed Wireless Access
<b>FWALA</b>	Fixed Wireless Access Local Area
<b>GGSN</b>	Gateway GPRS Support Node
<b>GHz</b>	Gigahertz
<b>GMSC</b>	Gateway Mobile Switching Centre
<b>GPRS</b>	General Packet Radio Service
<b>HLR</b>	Home Location Register
<b>HM</b>	Hypothetical Monopolist
<b>HMT</b>	Hypothetical Monopolist Test
<b>IBH</b>	In Building Handover

<b>IP</b>	Internet Protocol
<b>ISDN</b>	Integrated Services Digital Network
<b>ISH</b>	In-Span Handover
<b>LRIC</b>	Long Run Incremental Cost
<b>M2M</b>	Mobile-to-Mobile (call)
<b>MNAC</b>	Mobile Network Access Code
<b>MNO</b>	Mobile Network Operator
<b>MNP</b>	Mobile Number Portability
<b>MNPCD</b>	Mobile Number Porting Centralised Database
<b>MoU</b>	Minutes of Use
<b>MSP</b>	Mobile Service Provider
<b>MTR</b>	Mobile Termination Rate
<b>MVCT</b>	Mobile Voice Call Termination
<b>MVNE</b>	Mobile Virtual Network Enabler
<b>MVNO</b>	Mobile Virtual Network Operator
<b>NEH</b>	Near-End Handover
<b>NGA</b>	Next Generation Access
<b>NTP</b>	Network Termination Point
<b>OAO</b>	Other Authorised Operator
<b>OTT</b>	Over the Top
<b>PBX</b>	Private Branch Exchange
<b>PSTN</b>	Public Switched Telephone Network
<b>RFTS</b>	Retail Fixed Telephony Service
<b>RFVC</b>	Retail Fixed Voice Call
<b>RIA</b>	Regulatory Impact Assessment
<b>RIO</b>	Reference Interconnect Offer
<b>RMTS</b>	Retail Mobile Telephony Service
<b>RMVC</b>	Retail Mobile Voice Call
<b>RPP</b>	Receiving Party Pays
<b>SABB</b>	Standalone Broadband
<b>SB-WLR</b>	Single-Billing via Wholesale Line Rental
<b>SEO</b>	Similarly Efficient Operator
<b>SIM</b>	Subscriber Identity Module

<b>SIP</b>	Session Initiation Protocol
<b>SLA</b>	Service Level Agreement
<b>SME</b>	Small-to-Medium-size Enterprise
<b>SMP</b>	Significant Market Power
<b>SMS</b>	Short Message Service
<b>SSNIP</b>	Small but Significant Non-transitory Increase in Price
<b>STRPL</b>	Switched Transit and Routing Price List
<b>SV</b>	Switchless Voice
<b>TDM</b>	Time Division Multiplexing
<b>TFEU</b>	Treaty on the Functioning of the European Union
<b>VASP</b>	Value-Added Service Provider
<b>VDSL</b>	Very-high-bit-rate Digital Subscriber Line
<b>VOB</b>	Voice over Broadband
<b>VoIP</b>	Voice over Internet Protocol
<b>VUA</b>	Virtual Unbundled Access
<b>WACC</b>	Weighted Average Cost of Capital
<b>WDMDS</b>	Wideband Digital Mobile Data Service
<b>WLR</b>	Wholesale Line Rental
<b>WVCT</b>	Wholesale Voice Call Termination



## Annex: 10 Framework for CBP Assessment

- 10.1 ComReg sets out below the framework which it uses to assess the existence of any existing or potential effective CBP in the Relevant Termination Markets. The assessment of any such CBP is considered in Section 6.
- 10.2 ComReg assesses CBP in accordance with the following framework:
- (a) The regulatory context for CBP assessment;<sup>754</sup> and
  - (b) The economic framework for CBP assessment.<sup>755</sup>

### Regulatory Context for CBP Assessment

- 10.3 In carrying out an assessment of CBP it is necessary to consider the impacts of existing or potential future regulation. In this regard, ComReg sets out below its approach to the treatment of:
- (a) Existing SMP regulation in the Relevant Termination Markets under assessment;
  - (b) Existing SMP regulation in markets other than the Relevant Termination Markets under assessment; and
  - (c) Other non-SMP regulation, and the role of dispute resolution.

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<sup>754</sup> As set out at paragraph 6.34 above.

<sup>755</sup> As set out at paragraphs 6.35 to 6.37 above.

### Approach to existing SMP regulation in the Relevant Termination Markets when considering CBP

- 10.4 ComReg has already noted<sup>756</sup> that it adopts the 'Modified Greenfield Approach' set out by the European Commission, whereby SMP regulation in the market under consideration is discounted when considering the prospective SMP analysis of the Relevant Termination Markets. In assessing the existence of any effective CBP, ComReg considers the potential bargaining outcomes if the Service Provider in question were not actually or potentially designated with SMP, and were therefore not subject to SMP obligations. This is to avoid drawing conclusions regarding the competitive structure of a particular market which may be influenced by, or indeed premised on, existing or potential regulation on that market. Considering how the Relevant Termination Markets may function absent regulation helps to ensure that regulation is only applied (or withdrawn) in those circumstances where it is truly justified and proportionate. To do otherwise could result in a circularity of argument whereby, for example, the Relevant Termination Markets are found to be effectively competitive (or not) only by virtue of constraints arising from existing or potential SMP obligations. Once found to be effectively competitive, SMP obligations would be withdrawn, thereby undermining the original finding of effective competition on those markets.

### Approach to existing SMP regulation outside the Relevant Termination Markets

- 10.5 Before assessing approaches to existing SMP regulation outside the Relevant Termination Markets, it is important to note that various approaches are possible under the Modified Greenfield Approach.
- 10.6 Under one approach, it is assumed that neither the FSP active on the Relevant FVCT Market under consideration, nor FSPs active on separate Relevant FVCT Markets are subject to SMP regulation, but that MSPs active on Relevant MVCT Markets are subject to SMP regulation. The implication of this approach is that FSPs active on each Relevant FVCT Market are unregulated, and therefore more capable of exerting CBP with respect to one another, than MSPs active on each Relevant MVCT Market, who are subject to SMP regulation. The SMP MSPs are therefore likely to have less freedom to exercise CBP, as they will have less freedom of manoeuvre to threaten to alter their behaviour as a negotiating tool in their CBP strategy vis-à-vis suppliers of FVCT.

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<sup>756</sup> See paragraph 1.22 above.

- 10.7 Under an alternative approach, it could be assumed that the FSP active on the Relevant FVCT Market under consideration is not subject to SMP regulation, but that Service Providers active on all other Relevant FVCT Markets and Relevant MVCT Markets are subject to SMP regulation. In this case, the Modified Greenfield Approach assumes that only one FSP on one Relevant FVCT Market is unregulated. In these circumstances, all other Service Providers are likely to be constrained in their capacity to exert CBP on the Unregulated FSP, due to their SMP regulatory obligations. The Unregulated FSP on the Relevant FVCT Market is therefore much more likely to be able to exert CBP against other Service Providers, while those Service Providers in turn are much less likely to be able to exert CBP on it.
- 10.8 ComReg proposes to take the latter approach that, in the case of an FSP active on a specific Relevant FVCT Market, Service Providers active on all other Relevant FVCT Markets and Relevant MVCT Markets are subject to SMP regulation, and are therefore more constrained in their CBP strategies. This approach is based on ComReg's preliminary findings that each Relevant FVCT Market consists of a single FSP supplying FVCT, and that, accordingly, all other FSPs and MSPs providing WVCT services are active on markets external to the specific Relevant FVCT Market under consideration.
- 10.9 For the avoidance of doubt, ComReg similarly considers that, in the case of a specific Relevant MVCT Market, Service Providers active on all other Relevant FVCT Markets and Relevant MVCT Markets are subject to SMP regulation.

#### **SMP regulation in markets other than the Relevant FVCT Market**

- 10.10 SMP regulation in markets outside the Relevant FVCT Market being examined is considered and, in this regard, the 2006 Expert Report prepared on behalf of the European Commission notes:<sup>757</sup>

*“..it should also be noted that an operator requiring fixed call termination loses any power to counteract with an increase in its own termination rate if it is subject to SMP regulation and its call termination rate is set by the regulator on an ex ante basis. When applying the modified Greenfield approach to fixed termination, we assume that mobile operators are subject to SMP regulation and their termination rate is set by the regulator.”*

- 10.11 It is clear from the above statement that the bargaining position of a Service Provider will likely be weakened in FTR negotiations with a FVCT supplier if the Service Provider is subject to SMP obligations, and this is the logic of the Modified Greenfield Approach. Under the Modified Greenfield Approach, the SMP Service Provider cannot credibly exert CBP by threatening a retaliatory termination rate price increase.

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<sup>757</sup> “A Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to ex ante Regulation - An independent report”, Footnote 161, at page 57.

10.12 The provision of FVCT services by the 2007 SMP FSPs is subject to a number of regulatory obligations, including an obligation of price control. In these circumstances, the 2007 SMP FSPs, in their termination rate negotiations with other Service Providers, are unable to credibly threaten to retaliate with an increase in their FTRs and their bargaining power relative to other Service Providers is likely to be lessened, compared to a counterfactual in which they are not subject to SMP obligations. ComReg's preliminary view is that SMP obligations constrain the bargaining power of SMP FSPs in termination rate negotiations with other Service Providers, given that SMP FSPs are subject to a range of regulatory obligations, including an obligation of price control. As set out below, however, the converse is also the case.

### **SMP regulation in markets other than the Relevant MVCT Market**

10.13 SMP regulation in markets outside the specific Relevant MVCT Market being examined is considered and, in this regard, when discussing CBP, the Explanatory Note to the 2007 Recommendation notes:<sup>758</sup>

*“Considerations of relative market power are not limited to networks (of differing size or coverage) serving end users at a fixed location or address but also apply to networks such as mobile cellular networks serving non-fixed locations. In circumstances where a ‘fixed’ network with Significant Market Power is subject to a regulatory remedy (beyond the basic one to negotiate interconnect) such as regulated prices for call termination, market power relative to mobile networks would be affected.”*

10.14 What is clear in the above statement is that the bargaining position of a SMP FSP will likely be weakened in MTR negotiations with a MVCT supplier if its supply of FVCT is subject to SMP price regulation, or other SMP obligations governing the requirement to meet reasonable requests for access and not to discriminate. The provision of FVCT services by the 2007 SMP FSPs is subject to a number of regulatory obligations, including an obligation of price control.

10.15 In these circumstances, SMP FSPs, in their MTR negotiations with an MSP, are unable to credibly threaten to retaliate with an increase in their FTRs and their bargaining power relative to MVCT suppliers is likely to be lessened, compared to a counterfactual in which they are not subject to SMP obligations. ComReg's preliminary view is that SMP obligations constrain the bargaining power of SMP FSPs in MTR negotiations with an MVCT supplier, given that SMP FSPs are subject to regulatory obligations, including an obligation of price control.

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<sup>758</sup> Explanatory Note to the 2007 Recommendation, page 25, footnote 28. The Explanatory Note to the 2014 Recommendation refers at page 32 under the heading ‘Related aspects of SMP finding’ to the CBP discussion set out in the 2007 Recommendation, rather than setting out a CBP analysis in the body of the text.

## Approach to other non-SMP regulatory obligations and the role of dispute resolution

- 10.16 ComReg has also considered the role of dispute resolution (and own initiative investigations) in the context of general interconnection obligations, and how this might impact on the bargaining dynamic between parties in termination rate negotiations and CBP. Regulation 31<sup>759</sup> of the Framework Regulations empowers ComReg to resolve disputes between authorised undertakings not only in relation to specific SMP obligations, but also with respect to general obligations, including those governing interconnection. Furthermore, Section 10 of the Communications Regulation Act 2002 (as amended) provides ComReg with the power to carry out investigations into matters relating to the supply of access, either on its own initiative or following a complaint from an undertaking.
- 10.17 The question arises as to whether ComReg's ability to actually or potentially exercise its dispute resolution powers (or to commence investigations on its own initiative) is a relevant factor which should be taken into account in the assessment of CBP. If so, the next question is what the impact on the bargaining dynamic of the negotiating parties of such dispute resolution intervention is likely to be, such that the strength of any CBP exercised by a purchaser of WVCT is likely to offset a WVCT supplier's ability to set its termination rates above the competitive level. These questions must also be considered against the backdrop of the 'Modified Greenfield Approach' described in detail at paragraphs 10.4 to 10.11 above.
- 10.18 The European Regulatory Framework provides that SMP obligations may only be imposed on a Service Provider that is designated as holding SMP. Exceptionally, under Regulation 6 of the Access Regulations, such obligations may be imposed on operators that do not have SMP. However, the exception is subject to the proviso set out in Regulation 6(2) that such obligations should only be imposed "*to the extent that it is necessary to ensure end-to-end connectivity*" and to "*ensure interoperability.*" Whenever ComReg is exercising its dispute resolution powers or its powers to initiate investigations on its own initiative, it must also do so having regard to its objectives under Section 12 of the Communication Regulation Act 2002 (as amended) and Regulation 16 of the Framework Regulations.
- 10.19 In the event that Service Providers are unable to reach a commercially negotiated arrangement regarding the interconnection of their networks, including in relation to the level of the termination rates levied or proposed to be levied by a WVCT supplier (absent SMP), it would potentially<sup>760</sup> be open to one of the parties to seek to have the matter resolved by ComReg through the dispute resolution process provided for under Regulation 31 of the Framework Regulations.

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<sup>759</sup> This transposes Article 20 of the Framework Directive (Directive 2002/21/EC as amended by Directive 2009/140/EC).

<sup>760</sup> Having regard to ComReg's statutory functions and objectives in relation to interconnection.

- 10.20 It is also open to ComReg to carry out an investigation in relation to a Service Provider's general obligations to, for example, meet requirements to comply with aspects of the Numbering Conditions of Use,<sup>761</sup> including those relating to the opening up of access to numbers on their networks to ensure their subscribers can access services using such numbers.<sup>762</sup> Compliance with obligations relating to access to numbering contained in Regulation 23 (1) of the Universal Service Regulations<sup>763</sup> could also be taken into consideration.
- 10.21 As has been ComReg's position to date,<sup>764</sup> ComReg does not accept that the existence of its dispute resolution function, and its resulting power to determine termination rates in the context of an interconnection dispute, would negate any WVCT supplier's potential SMP position. Dispute resolution is a regulatory function which operates in parallel to, rather than as a substitute for, market analysis functions. Were ComReg to accept that the potential for regulatory intervention through the exercise of its dispute resolution functions negates the existence of an SMP position, it would then be faced with a scenario whereby no undertaking could ever be designated with SMP.
- 10.22 ComReg also does not consider that such a scenario was contemplated in the European Regulatory Framework and this has been borne out in a number of recent decisions by the European Commission under Article 7 of the Framework Directive concerning the imposition by National Regulatory Authorities of both SMP obligations pursuant to findings of SMP following a market analysis and the imposition of SMP-type obligations on non-SMP undertakings pursuant to the exercise of dispute resolution functions. Such European Commission decisions<sup>765</sup> clearly highlight its view that regulatory intervention in relation to the level of termination rates by non-SMP Service Providers through dispute resolution, while appropriate in certain scenarios as a short term measure, is no substitute for the conduct of a market analysis and, where appropriate, the imposition of permanent price control remedies.

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<sup>761</sup> One of the functions of ComReg is to manage the national numbering resource. The Numbering Conditions of Use set out, *inter alia*, the definitions of the various numbering categories available for use in the State. Available online at <https://www.comreg.ie/publication/numbering-conditions-of-use-and-applications-process/>

<sup>762</sup> See Appendix 8 of the Numbering Conditions of Use.

<sup>763</sup> European Communities (Electronic Communications Networks and Services) (Universal Service and End Users' Rights) Regulations 2011 (S.I. No. 337 of 2011).

<sup>764</sup> See, for example, paragraphs 4.68 to 4.79 of [Consultation on Market Analysis relating to wholesale voice call termination on Three's network, ComReg Document 07/01, 11 January 2007](#); paragraph 6.44 of Market Review Wholesale Voice Call Termination Services Provided at a Fixed Location Consultation and Draft Decision, ComReg 12/96, and paragraph 6.115 of Market Review: Voice Call Termination on Individual Mobile Networks, Response to Consultation and Decision Notice Decision: D11/12

<sup>765</sup> See, for example, Cases PL/2012/1280, PL/2012/1378 and IT/2016/1885.

10.23 The UK's Competition Appeal Tribunal ('CAT') 2014 judgement<sup>766</sup> regarding an appeal by six telecommunications providers of a decision by the Office of Communications ('Ofcom') in respect of a dispute resolution process concerning the wholesale prices charged for Ethernet access is also informative. The CAT, in considering the effects of a regulator's dispute resolution role quoted with approval the 2012 Court of Appeal judgment in *Telefónica O2 UK Ltd v BT*,<sup>767</sup> which held that:

*"The existence side by side of both adjudicatory and regulatory functions follows from the scheme of the Directives, but is particularly clearly spelled out in section 190 of the Communications Act, which I have already quoted."*<sup>768</sup>

10.24 In further considering the role of dispute resolution and its impact on the assessment of CBP, a regulatory dispute determination governing the termination rates of a non-SMP undertaking may not necessarily result in a form of price control that would prevail in a competitive market. Given that the particular circumstances of each dispute can vary, it is difficult to be definitive as to precisely how ComReg would approach a particular interconnection dispute concerning the level of a non-SMP Service Provider's termination rate. ComReg's view is that the imposition of any price control on non-SMP Service Providers would potentially be such as to ensure end-to-end connectivity or interoperability between networks pursuant to Regulation 6(2) of the Access Regulations.

10.25 Such an approach is not necessarily equivalent to the imposition of a cost oriented price. Any price control arising from a dispute determination would only be relevant insofar as it applied to the parties to the dispute itself, would not have a general market application, and would not, in ComReg's view be an efficient or effective means of resolving broader competition problems associated with the potential exercise of market power.

10.26 Overall, for the reasons outlined above, ComReg considers that the actual or potential impact of dispute resolution is not a factor for consideration in terms the bargaining dynamic between parties and, ultimately, CBP.

10.27 ComReg has not, through its dispute resolution process, to date, imposed non-SMP type price control or other obligations on MSPs pursuant to Section 6(2) of the Access Regulations.

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<sup>766</sup> Case Numbers 1205/3/3/13, 1206/3/3/13, and 1207/3/3/13. Available online at <http://www.catribunal.org.uk/238-8608/Judgment.html>.

<sup>767</sup> *Telefónica O2 UK Ltd v BT* [2012] EWCA Civ 1002 (the '08x Numbers case')

<sup>768</sup> See paragraph 296 of the 2014 CAT Judgement.

## Economic Framework for CBP assessment

- 10.28 Assessing the presence or absence of effective CBP involves an examination of whether sufficient buyer power may be exercised, such that the WVCT supplier cannot behave independently of its customers or consumers, and is therefore unable to sustain a termination rate above the level that would pertain in a competitive market. As noted earlier, the concept of CBP is not an absolute one,<sup>769</sup> and some degree of CBP may be present in termination rate negotiations between parties. Given that termination rate negotiations are usually bilateral in nature, it is reasonable to assume that the level of any CBP exercised will vary between parties, having regard to their circumstances.
- 10.29 While a range of economic models provides a context for the assessment of the exercise of CBP between interconnecting parties,<sup>770</sup> ComReg's review considers a series of bilateral monopoly bargaining scenarios involving one monopolist supplier of WVCT and one monopsonist purchaser of WVCT. ComReg recognises that this may not always be the case, as a number of purchasers of WVCT do so on the basis of interconnection through a transit provider. For example, Eircom, given its position in call origination markets (which continue to be regulated) and transit markets (which were deregulated by ComReg in 2015), purchases WVCT not just on its own behalf, but also on behalf of a number of other Service Providers. Accordingly, when considering a Service Provider's buyer power, ComReg has regard not only to purchases of WVCT on its own behalf, but also those purchases of WVCT on behalf of other parties such as in cases involving transit arrangements.
- 10.30 ComReg also considers a number of other factors which are relevant to setting out the economic framework according to which ComReg measures relevant bargaining dynamics and positions in the demand for and supply of WVCT. Such factors include:
- (a) The degree to which a purchaser of WVCT represents an important outlet for the seller;
  - (b) The degree to which a purchaser of WVCT has alternative supply options and is a well-informed and price sensitive buyer; and
  - (c) Evidence of CBP through analysing price-setting behaviour and actual negotiations.
- 10.31 The above factors are considered in the CBP assessments of Relevant Termination Markets carried out in Section 6.

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<sup>769</sup> The question to be addressed is not whether or not CBP has been exercised, but rather the strength of CBP exercised, and whether this is sufficient to constrain the exercise of SMP, in particular, by preventing a WVCT supplier from pricing termination rates above the competitive level.

<sup>770</sup> See, for example, the discussion in previous ComReg documents such as [Market Analysis: Voice Call Termination on Hutchison 3G Ireland's Mobile Network, ComReg Document No. 07/01, January 2007](#) (paragraphs 4.16 to 4.28).



## Size of the buyer and its relative importance to the seller

- 10.32 The strength of CBP can be influenced by the relative size of the buyer, measured according to the buyer's share of total purchases of WVCT from a Service Provider. The degree to which WVCT purchases are concentrated amongst one or more buyers may be relevant.
- 10.33 The size of the buyer's subscriber base impacts its buyer power, as it may be important for the WVCT supplier to have interconnection with the buyer to ensure that the WVCT supplier's subscribers can receive calls from and make calls to the buyer's subscribers.<sup>771</sup> However, the same may also be said of the buyer given that it would, for reputational and other reasons, also wish to ensure that its subscribers can receive calls from and make calls to the subscribers of a given WVCT supplier.
- 10.34 The size of the buyer and its relative importance to the seller has the potential to be dynamic over time, particularly having regard to the growth in the subscriber bases of the respective parties, and trends in actual or potential termination purchased by a buyer. For example, as a WVCT supplier's customer base grows, it may become somewhat more difficult for a WVCT purchaser to refuse or delay interconnection with that Service Provider (and purchase WVCT), given that it will likely have both an increasing need for its subscribers to be able to contact the Service Provider's subscribers, and an increase in the potential volume of incoming traffic from the Service Provider in question.
- 10.35 Arising from the above, it is possible that, relative to an established Service Provider, a new entrant Service Provider would find it more important to ensure that it had obtained interconnection to other Service Providers that have large customer bases. Recognising this asymmetry, the bargaining power of larger networks supplying/purchasing WVCT in interconnection negotiations with new entrant Service Providers could potentially be enhanced.
- 10.36 Overall, having regard to the nature of the interconnection arrangements established with Service Providers, to identify the largest buyers of a Service Provider's WVCT service and their relative importance to the Service Provider, ComReg considers the following:
- (a) The share of WVCT supplied by a particular Service Provider that is purchased by individual Service Providers directly interconnected with the Service Provider and trends over time;
  - (b) The size of each of the WVCT buyers' subscriber bases relative to the Service Provider's subscriber base and trends over time; and
  - (c) The growth in the level of termination traffic exchanged between the parties and trends over time.

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<sup>771</sup> Such interconnection can occur directly between the respective networks, or indirectly, with the purchaser interconnecting with that WVCT supplier through a third-party transit arrangement.

### Credible alternative sources of WVCT for the buyer

- 10.37 The strength of buyer power in WVCT negotiations is influenced by the degree to which a buyer can credibly refuse to purchase, or delay purchasing, WVCT. Such a strategy, in order to be credible, would likely be affected by a number of factors, including whether there are alternative (existing or potential) sources of supply of WVCT, and the degree to which the buyer can switch within a reasonable timeframe to alternative supply sources without incurring unrecoverable (sunk) costs. ComReg has considered these points in Section 5 (dealing with demand and supply-side substitution), and has expressed its preliminary view that there are no effective alternative sources of WVCT supply, given that the Relevant Termination Markets are defined at the individual Service Provider level.
- 10.38 Were the WVCT supplier to seek to refuse or delay direct interconnection, the buyer may have an alternative means of indirectly<sup>772</sup> interconnecting to the Service Provider through a third-party transit provider that has already interconnected with the Service Provider at an agreed termination rate. For example, Eircom and BT Ireland have widespread direct interconnection with other Service Providers and can, through their transit services, provide an indirect means for one Service Provider to achieve termination with another Service Provider.<sup>773</sup>
- 10.39 Similarly, were one Service Provider to refuse to allow an MSP to interconnect to it, the MSP could also potentially avail of indirect interconnection via third-party transit arrangements. Utilisation of such indirect interconnection alternatives is not, however, a cost-free exercise, due to the need to invest in new Interconnection Paths. Given that existing investments in direct interconnection may be sunk and largely irrecoverable, it would somewhat weaken the relative bargaining power of the parties, given that it could undermine the credibility of threats of refusal to supply (or delayed supply).

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<sup>772</sup> It may not be commercially viable for all Service Providers to interconnect directly with each other. In the context of establishing direct interconnection with a Service Provider, an undertaking is likely to consider the trade-off between the cost of establishing direct interconnection, the likely current and future volumes of traffic to be exchanged with the Service Provider, the termination rate to be charged under a direct interconnection agreement, the cost of using third-party transit services to provide indirect interconnection, and the termination rates charged by the Provider to this transit provider.

<sup>773</sup> When traffic is handed over by Eircom (or BT) to an MSP, an MSP does not discern Eircom's (or BT's) own traffic from the traffic also being handed over by Eircom (or BT) to the MSP on behalf of another Service Provider as part of a transit arrangement. The same would hold for other FSPs or MSPs handing over traffic directly to MSPs.

10.40 As noted by the European Commission in its expression of serious doubts to the Latvian NRA,<sup>774</sup> in the event that direct interconnection is impeded, Service Providers seeking access to the FVCT service in question would be forced to interconnect, indirectly bearing additional costs resulting from transit services. Thus, the availability of transit services does not solve the problem of a denial of, or delayed, access. It is also important to note that such indirect interconnection options would not necessarily undermine the ability and incentive of the WVCT Service Provider to charge termination rates above the efficient level to those third-party transit providers, which would in turn presumably be passed through (indirectly) to all WVCT purchasers, thereby still impacting on their ability to compete in downstream markets.

#### **Price sensitivity of the buyer**

10.41 Most WVCT buyers will likely be well informed about the price of WVCT, having regard to the existing arrangements for publication of termination rates in Eircom's RIO and the openeir STRPL,<sup>775</sup> as appropriate, as well as by being informed through contractual price notification arrangements.

10.42 Other factors that may impact the degree of price sensitivity of buyers include:

- (a) The absolute and relative level of the termination rate, in proportion to the overall cost faced by the originating Service Provider in providing a retail call to a fixed or mobile phone. If the level of the termination rate accounts for a large proportion of a Service Provider's cost in transmitting a call to a number, it is more likely to be sensitive to movements in the level of the termination rates, given the likelihood that such costs would be reflected in retail prices (call prices or other elements of the associated retail service).
- (b) The degree of any difference in the level of termination rates charged between interconnecting Service Providers. For example, where termination rates are asymmetric (for reasons other than underlying cost differences), all other things being equal, interconnecting parties face cost differences in exchanging terminating traffic.

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<sup>774</sup> See case [LV/2012/1296](#): Voice call termination on individual mobile networks, Opening of Phase II investigation pursuant to Article 7a of Directive 2002/21/EC as amended by Directive 2009/140/EC, concerning the non-imposition of an access obligation on Telekom Baltija and 12 MVNOs in the relevant MVCT markets. As noted in the BEREC opinion on the Latvian case, indirect interconnection may raise the costs of access and, thus, transit services are not a substitute for the availability of direct interconnection. See BEREC opinion on European Commission's serious doubts on asymmetric treatment of mobile operators in mobile call termination markets in Latvia: [http://www.berec.europa.eu/eng/document\\_register/subject\\_matter/berec/download/0/95-berec-opinion-on-phase-ii-investigation-0.pdf](http://www.berec.europa.eu/eng/document_register/subject_matter/berec/download/0/95-berec-opinion-on-phase-ii-investigation-0.pdf). Ultimately, the Latvian NRA withdrew the draft measures.

<sup>775</sup> The RIO is the Reference Interconnect Offer, which sets out the interconnection services which an FSP or MSP offers to other Service Providers wishing to interconnect with it, and the prices which it charges for these services. The STRPL (Switched Transit Routing and Price List) is a document published by openeir, Eircom's wholesale business. According to page 7 thereof, it "contains details of the services terminating on the networks of Authorised Operators who have requested openeir to open number ranges that have been granted to them by the National regulator in the Numbering Plan."

- (c) The degree to which the volume of traffic exchanged between Service Providers is asymmetric, i.e. if one Service Provider purchases more termination from an alternative Service Provider than the alternative Service Provider purchases from it, all things being equal, its price sensitivity, having regard to objective cost differences, may be higher given the presence of net revenue outflows.

10.43 In respect of FVCT, ComReg takes the preliminary view that, having regard to differences in the relative exchange of termination traffic between individual FSPs, FVCT purchasers could be expected to be somewhat sensitive to FTRs charged by different FSPs. For example, as set out in Table 10.1 below, in the case of Unregulated FSPs such as Vodafone, FTRs represent a maximum of 7% of the cost of a national call, compared to well under 1% in the case of Virgin Media, an SMP FSP:<sup>776</sup>

**Table 10.1: FTRs as a percentage of total call costs**

	Vodafone <sup>777</sup>		Virgin Media <sup>778</sup>	
	Cent per min	FTR as % of call cost	Cent per min	FTR as % of call cost
<b>FTR</b>	1.04		0.072	
<b>Call cost</b>	4.5		4.5	
<b>Setup charge</b>	9.80		15	
<b>Cost of 1 minute call</b>	15.34	7%	19.572	0.37%
<b>Cost of 10 minute call</b>	65.21	2%	60.72	0.12%

**Source: Vodafone and Virgin Media websites; openeir STRPL**

10.44 In such circumstances, the degree of price sensitivity of FVCT purchasers to FTR levels may vary in practice. ComReg's analysis indicates that, absent regulation, Termination Rates have been significantly higher than regulated SMP Termination Rates (which ComReg considers as a proxy for the termination rates likely to obtain on a competitive market). The higher such termination rates are, the more likely are Service Providers to be sensitive to them.

### Evidence of price-setting behaviour and negotiations between operators

10.45 Eircom publishes its FTRs as part of its RIO. The respective FTRs of other FSPs (some of which are not subject to SMP regulation), and the MTRs of MSPs (some of which are not subject to SMP regulation), are published in the openeir STRPL.<sup>779</sup>

<sup>776</sup> Vodafone is currently designated with SMP on the MVCT market, but not the FVCT market. Virgin Media is currently designated with SMP on the FVCT market, but not the MVCT market.

<sup>777</sup> <https://n.vodafone.ie/shop/broadband/charges.html>

<sup>778</sup> [https://www.virginmedia.ie/pdf/standard\\_call\\_rates\\_march\\_2015.pdf](https://www.virginmedia.ie/pdf/standard_call_rates_march_2015.pdf)

<sup>779</sup> Openeir Switched Transit Routing and Price List (STRPL), version 148.0, 08 June 2017. Available online at <http://www.openeir.ie/WorkArea/DownloadAsset.aspx?id=4582>

- 10.46 ComReg checks whether there is evidence of price-setting behaviour, and has regard to any such evidence. As part of the 2016 SIRs issued to Service Providers, ComReg sought details of any negotiations that took place regarding the setting of termination rates, as well as any instances of the exercise of CBP in such negotiations. Little evidence was provided which would indicate any effective exercise of CBP in respect of either FVCT or MVCT negotiations: of 28 FSP and MSP respondents, only one [redacted] indicated that it had experienced CBP, it specified that it had experienced CBP in the context of termination rates arising in the context of international transit traffic only. No other respondent indicated that it had experienced CBP with respect to the setting of termination rates although, as set out in paragraph 6.109, [redacted] unsuccessfully attempted to exercise its CBP with respect to [redacted].
- 10.47 The development and extent of competition in a market over time may be observed by reference to pricing behaviour. In an SMP assessment context, the ability of a Service Provider to behave, to an appreciable extent, independently of the pricing behaviour of its competitors may be suggestive (but not determinative in itself) of SMP when considered alongside other factors. ComReg assesses this factor when considering the effectiveness of CBP.