



An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Spectrum Lease Determination

Lease of spectrum rights in the 3.6 GHz band from Vodafone Ireland Limited to Imagine Communications Ireland Limited

Reference: ComReg 23/22

Date: 10/03/2023

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Content

Section	Page
1 Introduction and background.....	4
1.1 Background – key aspects of framework for spectrum leases in Ireland.....	5
1.2 Background - 3.6 GHz Band, 3.6 GHz Band Award and Transition	5
2 Determination	8
2.1 The Notifying Parties.....	8
2.1.1 Business activities of the notifying parties.....	8
2.1.2 Existing overall spectrum holdings of the notifying parties	8
2.2 Imagine’s existing 3.6 GHz Band spectrum holdings	10
2.3 The Proposed Lease.....	11
2.4 Imagine’s 3.6 GHz Band spectrum holdings following the Proposed Lease	12
2.5 Assessment.....	13

1 Introduction and background

- 1.1 The procedures and guidelines for transfers and leases of spectrum rights of use for electronic communications services (“ECS”) in the 700 MHz¹, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2.6 GHz and 3.6 GHz bands in Ireland are set out in Commission for Communications Regulation (“ComReg”) Document 14/11R.²
- 1.2 On 25 July 2022, ComReg formed the view that the lease of spectrum rights in the 3.6 GHz band to Imagine Communications Ireland Limited (“Imagine”)³ from each of Meteor Mobile Communications Limited (“Meteor”)⁴, and Vodafone Ireland Limited (trading as “Vodafone”) (“Vodafone”)⁵ would not distort competition and determined that the leases may be put into effect for three months initially, followed by a further three-month period subject to the prior agreement by the relevant parties, and approval by ComReg.⁶
- 1.3 Those leases expired on 24 January 2023, and on 19 January 2023 Imagine submitted to ComReg further a notification (the “Lease Notification”) to lease spectrum rights in the 3.6 GHz band from Vodafone (“the “Proposed Lease”).
- 1.4 ComReg published an information notice regarding the Proposed Lease on 23 January 2023 (Document 23/08⁷) which set out:
 - relevant technical details of the lease notifications and other relevant material; and
 - the process by which interested parties could make submissions on the Proposed Lease and next steps.
- 1.5 ComReg does not repeat this background information and refers interested parties

¹ Decision (EU) 2017/899 of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union requires EU Member States to allow the transfer or leasing of spectrum rights of use in the 700 MHz (694-790 MHz) band.

² ComReg Document 14/11R, ‘*Spectrum Transfer and Lease Framework in Ireland - Procedures and Guidelines, and Notification Form(s)*’, revised 12 October 2017.

³ Imagine Communications Ireland Limited provides fixed wireless electronic communication services.

⁴ Meteor Mobile Communications Limited provides mobile ECS.

⁵ Vodafone Ireland Limited provides fixed and mobile ECS.

⁶ ComReg Document 22/65 – Spectrum Lease Determination: Lease of spectrum rights in the 3.6 GHz band from each of Meteor Mobile Communications Limited and Vodafone Ireland Limited to Imagine Communications Ireland Limited – published 25 July 2022.

⁷ ComReg Document 23/08 – “Spectrum Lease Notification: Proposed lease of spectrum rights in the 3.6 GHz band from Vodafone Ireland Limited to Imagine Communications Ireland Limited” - published 23 January 2023.

to Documents 23/08.

- 1.6 ComReg did not receive any submissions in response to Document 23/08.
- 1.7 This document sets out ComReg's written determination, having regard to the procedures and guidelines set out in Document 14/11R in particular.

1.1 Background – key aspects of framework for spectrum leases in Ireland

- 1.8 In October 2017, ComReg published its response (“Document 17/82”)¹ to the public consultation (“Document 17/47”)² on its proposed framework for spectrum leases in Ireland (“Spectrum Lease Framework”). ComReg also updated its spectrum transfer procedures to reflect its decisions on the Spectrum Lease Framework (“Document 14/11R”).
- 1.9 While the draft Wireless Telegraphy (Transfer of Spectrum Rights of Use) (Amendment) Regulations have yet to be made, there is no impediment to the Proposed Lease in the 3.6 GHz Band.⁸
- 1.10 In addition to Document 14/11R and S.I. No. 532 of 2016, ComReg would highlight Regulation 19 of the Framework Regulations⁹ and Regulation 9(11) of the Authorisation Regulations¹⁰.
- 1.11 Readers are also referred to Annex 2 of Document 20/122 for a general overview of the legislative framework relevant to ComReg's spectrum management function.

1.2 Background - 3.6 GHz Band, 3.6 GHz Band Award and Transition

3.6 GHz Band

- 1.12 The 3.6 GHz Band comprises the frequency range 3 400 – 3 800 MHz and in Ireland a total of 350 MHz is assigned to licensees for the purposes of providing ECS.¹¹

⁸ See, in particular, the Wireless Telegraphy (3.6 GHz Band Licences) Regulations 2016 (S.I. No. 532 of 2016) at <http://www.irishstatutebook.ie/eli/2016/si/532/made/en/print>

⁹ European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (S.I. No. 333 of 2011).

¹⁰ European Communities (Electronic Communications Networks and Services) (Authorisation) Regulations 2011 (S.I. No. 335 of 2011)

¹¹ The remainder comprises a 10 MHz guard band (between 3 400-3 410 MHz) and spectrum used by State Services.

- 1.13 The 3.6 GHz Band is one of the three “Pioneer 5G candidate bands” in Europe¹² and its use is harmonised in Europe by way of European Commission decisions (EU) 2019/235 and 2008/411/EC.¹³
- 1.14 3.6 GHz Band rights of use in Ireland are service- and technology-neutral, and use cases include mobile broadband, fixed wireless broadband and small cells.

3.6 GHz Band Award¹⁴

- 1.15 On 22 May 2017, ComReg announced the results of its 3.6 GHz Band Award (“Award”) which resulted in five Winning Bidders, across over nine regions (four rural and five urban), together “Regions”) and assigned on a contiguous basis.¹⁵

3.6 GHz Band Transition

- 1.16 Prior to the Award, the 3.6 GHz Band was used to provide fixed wireless broadband services (and phone services in some cases) to 21,665 existing customers, predominantly in rural areas. In those areas, the then existing operators may have been the only available provider of broadband services, such as to homes and schools.
- 1.17 In order to ensure continued services for those existing customers who were at risk of losing their service while Winning Bidders prepared for the deployment of their services (e.g. trials), ComReg developed a Transition licensing framework - which it consulted upon extensively with interested parties and implemented by way of the rules of the Award - which all participants to the Award agreed to be bound by.¹⁶ Essentially, this Transition licensing framework allows existing operators to continue to provide services to their customers until such time that Winning Bidders were ready to roll-out commercial services.
- 1.18 Relevantly, as Imagine was both a Fixed Wireless Access Local Area licensee and a Winning Bidder in the Award, Imagine was eligible to apply for, and currently holds, a 3.6 GHz Band Transition Protected Licence (“TPL”)¹⁷, to facilitate the completion

¹² https://rspg-spectrum.eu/wp-content/uploads/2013/05/RPSG16-032-Opinion_5G.pdf

¹³ Commission Implementing Decision (EU) 2019/235 of 24 January 2019 on amending Decision 2008/411/EC as regards an update of relevant technical conditions applicable to the 3400-3800 MHz frequency band (notified under document C(2019) 262) (Text with EEA relevance.)

¹⁴ For more information, please see:

<https://www.comreg.ie/industry/radio-spectrum/spectrum-awards/3-6ghz-band-spectrum-award/>

¹⁵ Full details of the results are set out in Document 17/38 and corresponding Media Release.

¹⁶ These rules are contained in the 3.6 GHz Band Spectrum Award Information Memorandum (Document 16/71) (“IM”).

¹⁷ See Section 2.6 of <https://www.comreg.ie/publication/3-6-ghz-band-spectrum-award-information-memorandum/>

of its Transition Activities as provided for under Section 3.8 of the IM.

- 1.19 Further details on 3.6 GHz Band Transition activities are available on ComReg's website.¹⁸
- 1.20 Chapter 2 which follows sets out ComReg's assessment of the Proposed Lease and determination.

¹⁸ See: <https://www.comreg.ie/industry/radio-spectrum/spectrum-awards/3-6-ghz-band-transition/>

2 Determination

2.1 This chapter outlines ComReg’s determination and is structured as follows:

1. A brief description of the notifying parties and their spectrum holdings;
2. Imagine’s existing 3.6 GHz Band spectrum holdings;
3. The Proposed Lease;
4. Imagine’s post-lease 3.6 GHz Band spectrum holdings; and
5. Assessment.

2.1 The Notifying Parties

2.1.1 Business activities of the notifying parties

2.2 **Imagine** is the largest Wireless Internet Service Provider (“WISP”) with circa 46,000 fixed broadband subscribers (2.9% market share by subscriptions) as at Q3 2022.¹⁹ Imagine does not provide mobile telecommunications services.

2.3 **Vodafone** is a mobile network operator (“MNO”) with circa 2.96 million mobile subscribers (34.3% market share by subscriptions)²⁰. Vodafone also provides fixed line broadband services and has circa 320,000 fixed broadband subscribers (20% market share by subscriptions)²¹.

2.1.2 Existing overall spectrum holdings of the notifying parties

2.4 The existing spectrum holdings of the notifying parties²² capable for the provision of public wireless ECS is shown in **Table 1: Existing spectrum holdings of notifying parties capable for the provision of public wireless ECS**

¹⁹ Quarterly Key Data Report, Q3 2022.

²⁰ Including mobile broadband and machine-to-machine subscriptions.

²¹ Quarterly Key Data Report, Q3 2022.

²² The figures exclude leases or other temporary rights of use.

Band	Vodafone	Imagine
700 MHz*	20 MHz	-
800 MHz	20 MHz	-
900 MHz	20 MHz	-
Total sub-1 GHz	60 MHz	-
1800 MHz	50 MHz	-
2.1 GHz FDD*	40 MHz	-
2.3 GHz*	-	40 MHz
2.6 GHz FDD*	70 MHz	-
2.6 GHz TDD*	30 MHz	15 MHz
3.6 GHz	85 MHz in rural regions and 105 MHz in the cities	60 MHz in each of the rural regions
Total supra-1 GHz	295 MHz	115 MHz
Total	355 MHz	115 MHz

2.5 below.²³

²³ This excludes temporary spectrum rights issued under ComReg's Covid-19 Temporary Spectrum Management Measures, TPL and Previous Leases.

Table 1: Existing spectrum holdings of notifying parties capable for the provision of public wireless ECS

Band	Vodafone	Imagine
700 MHz*	20 MHz	-
800 MHz	20 MHz	-
900 MHz	20 MHz	-
Total sub-1 GHz	60 MHz	-
1800 MHz	50 MHz	-
2.1 GHz FDD*	40 MHz	-
2.3 GHz*	-	40 MHz
2.6 GHz FDD*	70 MHz	-
2.6 GHz TDD*	30 MHz	15 MHz
3.6 GHz	85 MHz in rural regions and 105 MHz in the cities	60 MHz in each of the rural regions
Total supra-1 GHz	295 MHz	115 MHz
Total²⁴	355 MHz	115 MHz

*Spectrum rights acquired following the completion of the auction stages of MBSA2²⁵

2.2 Imagine's existing 3.6 GHz Band spectrum holdings

2.6 Imagine's existing 3.6 GHz Band spectrum holdings consists of 60 MHz (in the frequency range 3560 to 3620 MHz) in each of four rural licence regions (i.e. Borders, Midlands and West; South West; East and South East) held under its 3.6 GHz Band Liberalised Use Licence ("LU Licence").

2.7 Imagine also holds 3.6 GHz Band spectrum rights in various parts of the band in 85

²⁴ Note that these numbers are the maximum assigned to the licensee in any given region.

²⁵ At the time of publication, ComReg is now commencing the remaining stages of the MBSA2 award, being: (1) the Notification and Grant Stage ; and (2) the Transition Phase. See ComReg 23/06.

Transition Service Areas (“TSAs”) under its TPL.

- 2.8 These TSAs correspond to local service areas in which Imagine previously operated under the 3.6 GHz Band FWALA licensing scheme prior to the Award. At the start of Transition immediately after the Award, all TSAs had a 20 km radius boundary around a defined centre point. As Transition has progressed, the area of some TSAs has been reduced to reflect completion of Transition Activities which affect only part of a TSA and to facilitate ongoing Transition Activities in the remainder of the TSA.
- 2.9 In addition to having a defined geographic area, TSAs are assigned frequency ranges which derive from the previous channel plan for 3.6 GHz Band FWALA licensing prior to the Award, which included a number of paired and unpaired channels. In many cases, the frequency ranges of Imagine’s TSAs have reduced as Transition has progressed.

2.3 The Proposed Lease

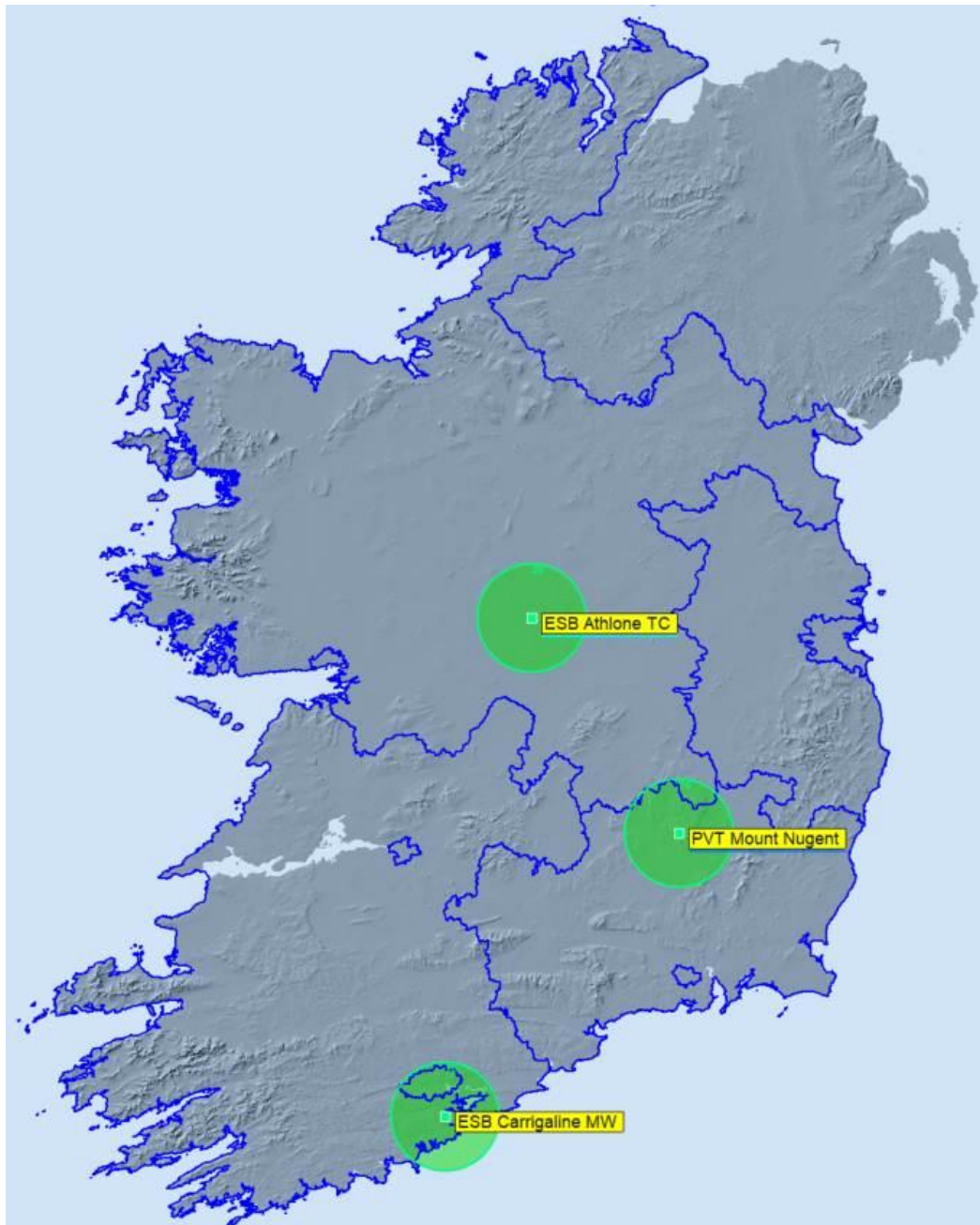
- 2.10 Details of the Proposed Lease are set out in Annex 1 of Documents 23/08 and readers are referred to same.
- 2.11 At a high level, the Proposed Lease entail Imagine leasing 20 MHz²⁶ of Vodafone’s spectrum at one location, 40 MHz²⁷ at one further location, and 60 MHz²⁸ at another further location.
- 2.12 Each location consists of an area of 20 km radius around an existing Imagine base station (“Proposed Lease Area” or “PLA”).
- 2.13 The Proposed Lease Areas are shown at **Figure 1** below.
- 2.14 The Proposed Lease is for three months initially, with a further three-month period subject to the prior agreement by the relevant parties, and approval by ComReg. Accordingly, the following assessment has been conducted on the basis of the Proposed Lease having a 6-month (potential) overall duration.
- 2.15 The Proposed Lease does not entail any amendments to the conditions of the 3.6 GHz Band Liberalised Use Licences of Vodafone.

²⁶ In the frequency range 3540 to 3560 MHz

²⁷ in the frequency range 3500 to 3540 MHz

²⁸ In the frequency range 3480 to 3540 MHz

Figure 1: Map of Proposed Lease Areas



2.4 Imagine's 3.6 GHz Band spectrum holdings following the Proposed Lease

2.16 The Proposed Lease would increase Imagine's 3.6 GHz Band spectrum holdings by 20MHz-60MHz in the 3 unique PLAs, relative to Imagine's holdings absent the

Proposed Lease.

2.17 In this particular instance, ComReg has chosen to assess the likely impact of the Proposed Lease by reference to:

- Its assessment in Document 21/131 of the leases from Meteor and Vodafone to Imagine, which ComReg determined not to impact or distort competition; and
- Its assessment in Document 22/64 of the leases from Meteor and Vodafone to Imagine which ComReg also determined not to impact or distort competition.

2.18 This is appropriate and conservative in this instance, as:

- Firstly, the Proposed Lease represents a reduction in spectrum relative to the above leases (i.e. Imagine proposes to lease the same quantum of spectrum from Vodafone and none from Meteor); and
- Secondly, the three sites proposed are among the four sites assessed previously in Document 22/64, also noting the recency of that assessment.

2.19 Lastly, the Expired Leases do not form part of the assessment of the potential impacts of the Proposed Lease.

2.20 For these reasons, ComReg has not performed a detailed assessment of Imagine's current spectrum holdings for each site.

2.5 Assessment

2.21 By way of background, ComReg recalls that its guidelines for the determination of whether a spectrum transfer or lease would likely distort competition - as set out in Chapter 3 Document 14/11R - are to be interpreted and applied flexibly having regard to the specific circumstances of each case.²⁹ For example and other things being equal, a transfer or lease with prima facie greater potential to raise competition concerns (such as in terms of quantum of spectrum rights involved, the relative existing spectrum holdings of the notifying and other relevant parties before and following the proposed transfer or lease, and/or the duration of lease etc.), would likely involve a more exhaustive assessment of the matters identified in the guidelines, including a likely corresponding higher burden on the notifying parties in

²⁹ Paragraph 33 of Document 14/11R.

terms of the information required to inform such an assessment.

- 2.22 In the present matter, ComReg would particularly note the quite limited duration of the Proposed Lease (i.e. 3 months initially, and up to 6 months overall) and the relative spectrum holdings of the relevant parties (both pre- and post-lease).
- 2.23 ComReg notes that, in this instance, this amounts to a conservative approach as the previous leases concerned the transfer of a greater quantum of spectrum rights of use than that the Proposed Lease. ComReg has not received any submissions regarding either its assessment of the previous leases, or their competitive effects.
- 2.24 In light of the above context, ComReg outlines out its assessment below.
- 2.25 **First**, and in the context of market definition, ComReg recalls paragraph 39 of Document 14/11R which states:

“It is not always necessary to reach a firm conclusion on market definition - for example, where it is clear that the proposed spectrum transfer or lease is not likely to raise competition concerns on any reasonable definition of the market.”

- 2.26 In the present case, it appears sufficient to consider the Proposed Lease in the narrow context of the relative distributions of holdings in the relevant spectrum band, noting, of course, the potential for other competitive constraints when viewed more broadly, such as in terms of alternative spectrum bands (e.g. fixed wireless access services provided using licence-exempt spectrum) and alternative technologies (e.g. mobile broadband and fixed broadband etc).
- 2.27 **Second**, and in that context, ComReg does not consider that the post-lease 3.6 GHz Band spectrum holdings of Imagine would be likely to distort competition noting, among other things:
- that Imagine presently holds 60 MHz under its LU Licence out of a total of 350 MHz assigned in rural regions in the 3.6 GHz Band (or circa 17%), further noting the service-and technology-neutral licensing of rights in this band;
 - the very short-term nature of the Proposed Lease (see further below); and
 - the overall quantum of spectrum Imagine would hold under the Proposed Lease is less than that was held by Imagine under the previous leases (i.e. Imagine would no longer lease 20 MHz of Meteor’s spectrum at one location).

- 2.28 Furthermore, the very short-term nature of the Proposed Lease limits the potential

for material competitive distortions to arise because, among other things:

- the Proposed Lease is stated to be for use in providing FWA services to Imagine's pre-existing customers only;³⁰ and
- the benefits to Imagine from the Proposed Lease (i.e. additional capacity and better quality of service) is short-lived, thereby reducing the ability and incentive to seek to increase its prices (or reduce its output) on foot of same without concern as to the reactions of its competitors and/or customers.

2.29 For the reasons outlined above, ComReg considers that the Proposed Lease would not be likely to distort competition and has determined that the Proposed Lease may be put into effect for a period of six months from 10/03/2023.

³⁰ See page 4 of the lease agreements between Imagine with Vodafone and Meteor respectively, in ComReg Document 23/08.