



Commission for  
**Communications Regulation**

## Submissions to Consultation

### **Liberalising the Use of the 900 MHz and 1800 MHz Spectrum Bands**

#### **Liberalisation of the GSM Spectrum Bands & Options for the Release of Spectrum in these Bands**

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Digiweb Ltd.

**Response to ComReg doc 09/14****Consultation on Liberalising the Future Use of the 900 MHz and 1800 MHz  
Spectrum Bands & Spectrum Release Options**

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## 1. Executive Summary

Digiweb Ltd welcomes the liberalisation of the spectrum in the 900 and 1800 MHz band including the possible use of these bands for fixed, mobile or radiolocation services, and the opportunity to respond to the Consultation Paper.

Digiweb is one of Ireland's leading telecommunications and internet services providers, an indigenous business investing in independent infrastructure to deliver wide-reaching and innovative services to its customers nationwide. Digiweb has a broad service capability from its own infrastructure including Fixed and Mobile Wireless Broadband, Fibre, Satellite, Data Centre and Web Hosting, and offers various fixed line services through wholesale relationships.

Digiweb's position is that, a variant of Option 1 is the optimum of the two options presented for the liberalisation of the 900MHz spectrum with the caveat that at least one of the blocks (i.e. Blocks A or B) are reserved for new entrants. Of the two options this one maximises the potential for new entrants to gain access to the market, thereby ensuring the promotion of competition.

Reserving one or both blocks of currently unused spectrum allows a new entrant to benefit from liberalisation relatively quickly instead of possibly having to wait until the expiry of existing licenses.

## 2. Response to Consultation Questions

### Q. 1. MVNO and the competitive process:

- a. What would be the impact of MVNOs on competition and investment?
- b. What in your opinion would be the likely benefits and costs of ComReg inviting MVNO commitments as part of a future 900 MHz spectrum licence competition?

In support of your response please refer

No Comment

### Q. 2. MVNO licence commitments:

- a. What should be the minimum services encompassed by MVNO licence commitments?
- b. Should any services be excluded or should this be left solely to normal commercial agreement?
- c. How might MVNO licence commitments be enforced? What criteria, processes and timelines might apply?

No Comment

### Q. 3. MVNO Wholesale Pricing:

- a. Should wholesale pricing considerations form part of any discussion on MVNO commitments?
- b. What factors should form the basis of any wholesale pricing structure in the event that MVNO licence commitments are included in any future 900 MHz spectrum licences? Please support your response with the reasoning for considering any such factors.

No Comment

### Q. 4. MVNO Technical Issues:

- a. Are there any technical or practical constraints to the inclusion of MVNO commitments within future 900 MHz licences in a liberalised setting? Please provide reasons for your view.

No Comment

**Q. 5. Do you believe that the Options for the release of spectrum in the 900 MHz set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg?**

No, but a variant between option C set out in consultation document 08/57 and option 1 set out in consultation document 09/14 should be included in the finalising the process. Please see response to Question 7 of consultation document 09/14 for detailed arguments describing and supporting this variant.

**Q. 6. Which of the two Options described above for release of spectrum in the 900 MHz band would you prefer?**

Option 1 is the optimum of the two options presented for the liberalisation of the 900MHz spectrum.

Option 1 would involve holding a single award process for the entire 900 MHz band. This would provide greater visibility and certainty to stakeholders and up to two years in advance of the first expiry dates in 2011. It would be more advantageous in terms of the efficient use and management of the spectrum as:

- The spectrum is divided into 7 x 5MHz blocks
- A lower risk of created stranded or unused blocks of spectrum

Since the licence competition is in 2009, it would provide an opportunity for new entrants to obtain 900 MHz spectrum earlier and benefit from liberalisation relatively quickly.

**Q. 7. What variations of the two Options should ComReg consider in finalising the process?**

Digiweb's position is that, a variant of Option 1 is the optimum of the two options presented for the liberalisation of the 900MHz spectrum with the caveat that at least one of the blocks (i.e. Blocks A or B) are reserved for new entrants.

This variation has the same advantages as option 1 with the exception that this variant would reserve at least one 5MHz block of spectrum for new applicants. This will leave six 5MHz blocks for existing or potential new applicants. It will also provide an opportunity for a new entrant to benefit from the liberalisation process immediately. It has a greater potential to promote competition by providing applicants with no 900 MHz spectrum the greatest opportunity to acquire a presence in the band which can be used shortly after the completion of the licence competition in 2009.

**Q. 8. Are there any other new Options that ComReg should consider?**

No Comment

**Q. 9. In the above Options, do you agree with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months?**

Yes, it should be possible for the incumbent operators to complete an automatic frequency plan for the different spectrum assignments within 6 months.

If a new applicant acquires the incumbent's current spectrum during the auction, it should be accepted that the new applicant would want to utilise this spectrum as quickly as possible. Therefore it is vital that this spectrum is freed within 6 months.

**Q. 10. Under Option 2, and in the event that the existing 900 MHz licensees wish to continue use of their frequency assignments beyond the expiry dates of their current licences, do you agree with the principles ComReg has outlined for use when setting an increased spectrum fees levy appropriate for those extended licences?**

No comment

**Q. 11. It is ComReg's intention to include conditions in any new 900 MHz licences issued.**

**a. Should the conditions be limited to existing services such as voice and text or be broadened to include other services such as broadband?**

**b. What kind of conditions (e.g. Coverage, Roll-Out, Quality of Service, etc.) should be included?**

**c. At what level should these conditions be set?**

**Please provide reasons for your views.**

- a. The new 900 MHz licences are to be technology neutral. As such any conditions have to be dynamic e.g. an IP broadband technology may not offer voice/text, therefore should conditions relating to voice/text be applied? Digiweb believe that the conditions should

include services such as broadband. However, not all conditions can be applied depending on the technology or strategy of the applicants.

- b. Considering the financial implications for new applicants entering the band, Digiweb's position is that Coverage and Roll-Out conditions may deter any potential new applicants from bidding for spectrum as the cost of a full scale national Roll-Out may be cost prohibitive. Therefore Digiweb recommend that Quality of Service conditions are the optimum criteria for new applicants.
- c. The Quality of Service conditions should be set on a network level. This ensures that the consumers are likely to benefit from a good quality network.



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30 April 2009

Dear Sinead

**SUBMISSION RE COMREG 09/14**

Please find enclosed our submission.

Yours sincerely

  
**MARK HUGHES**  
Head of Regulatory

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**Response by Hutchison 3G Ireland Limited  
in respect of ComReg Doc. No. 09/14  
*"Liberalising the Future Use of the 900 MHz and 1800 MHz Spectrum Bands &  
Spectrum Release Options"***

**30 April 2009**



## Executive Summary

Hutchison 3G Ireland Limited (“H3GI”) welcomes the opportunity to respond to ComReg Doc. No. 09/14 “*Liberalising the Future Use of the 900 MHz and 1800 MHz Spectrum Bands & Spectrum Release Options*”. In its consultation, ComReg correctly identifies mobile broadband services as being at the heart of the future use of the 900 MHz and 1800 MHz spectrum bands. Without sufficient access to spectrum, whether the ‘Digital Dividend’ (790 – 862 MHz), 900 MHz, 1800 MHz or 2.6 GHz, 3G mobile network operators cannot provide the Irish consumer and economy with the full benefits of 3G, HSPA and 4G or ‘Long Term Evolution’ technology. In order to promote competition and the interests of users, contribute to the development of the internal market and ensure the efficient management and use of radio frequency spectrum, ComReg should implement Option 1 identified in its consultation as soon as possible.

In relation to the two options consulted upon by ComReg, H3GI prefers Option 1. It provides certainty regarding the immediate and future availability of 900 MHz spectrum on a liberalised basis, promotes competition and the interests of users and ensures the efficient management and use of spectrum in accordance with ComReg’s statutory objectives.

In relation to Option 2, it:

1. Is contrary to European Community State Aid law;
2. Contradicts ComReg’s position regarding the renewal or extension of the licences of the 2G licensees;
3. Is not based on a sufficiently thorough and rigorous analysis of the 2G legacy issues cited by the 2G licensees in their responses to ComReg’s first consultation;
4. Threatens to delay the whole process of liberalising the 900 MHz band; and
5. Is inherently uncertain.

It is not necessary for ComReg to authorise Vodafone and/or O2 to provide 2G services up until 17 June 2015 in order to protect mobile consumers from significant service disruption. Firstly, Vodafone and O2 can bid appropriately for spectrum in the 900 MHz band under Option 1. Secondly, if they are unsuccessful in obtaining spectrum under Option 1, they can enter into a roaming agreement with Meteor (until 17 June 2015) or whomsoever is successful under Option 1. Thirdly, they can make attractive offers to their customers to transition to 3G. Fourthly, as stated in our response to ComReg’s previous consultation, there is sufficient competition in the Irish mobile market to provide services to the customers of Vodafone or O2 in the event that either of these operators were to lose or effectively lose its licence. Finally, neither Vodafone, O2 nor ComReg has demonstrated why it should take either Vodafone or O2 until after 2011 to “*transition to other solutions*”. H3GI does not believe that it should take Vodafone or O2 in excess of two years to “*transition to other solutions*”. In the last two years, both H3GI and O2 have completed RAN



infrastructure swaps without disruption to customers. H3GI completed its RAN infrastructure swap within six months. O2 completed two major swap-outs of both its 2G and 3G networks within two years. All GSM handsets have had dual band 1800/900 capability for the last number of years and the majority, if not all, of existing GSM sites are dual band. Any coverage holes could be covered by a national roaming agreement with another operator. The fact that ComReg is proposing to charge Vodafone and/or O2 for the ability to provide 2G services up until 17 June 2015 is irrelevant. Under Option 2, what ComReg is proposing to do amounts to an unjustified 'bailout' of Vodafone and/or O2 for failing to properly plan their businesses and look after their customers.

H3GI looks forward to ComReg's competition proposals.

### **Introduction**

The purpose of this document is to respond to ComReg Document No. 09/14 "*Liberalising the Future Use of the 900 MHz and 1800 MHz Spectrum Bands & Spectrum Release Options*" (the "Consultation"). The format of this document is:

1. Part 1 addresses ComReg's general comments.
2. Part 2 addresses issues raised by respondents to ComReg's first consultation.
3. Part 3 addresses conclusions on licensing and technical issues.
4. Part 4 addresses mobile virtual network operator access.
5. Part 5 addresses consideration of previous consultation options for the release of 900 MHz spectrum.
6. Part 6 addresses new proposals for the release of 900 MHz spectrum.
7. Annex 1 contains responses to ComReg's consultation questions.
8. Annex 2 contains comments in respect of submissions to ComReg's first consultation.

### **Part 1 – General Comments**

H3GI welcomes the opportunity to respond to ComReg Doc. No. 09/14 "*Liberalising the Future Use of the 900 MHz and 1800 MHz Spectrum Bands & Spectrum Release Options*". In its consultation, ComReg correctly identifies mobile broadband services as being at the heart of the future use of the 900 MHz and 1800 MHz spectrum bands.<sup>1</sup> Without sufficient access to spectrum, whether the 'Digital Dividend' (790 – 862 MHz), 900 MHz, 1800 MHz or 2.6 GHz, 3G mobile network operators cannot provide the Irish consumer and economy with the full benefits of 3G, HSPA and 4G or 'Long Term Evolution' technology. In order to promote competition and the interests of users, contribute to the development of the internal market and ensure the efficient management and use of radio frequency spectrum<sup>2</sup>, ComReg should implement Option 1 identified in its consultation as soon as possible.

### **Part 2 – Issues raised by Respondents to ComReg's First Consultation**

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<sup>1</sup> Page 3 of the Consultation.

<sup>2</sup> Section 12 of the Communications Regulation Act, 2002.



Subject to our response to ComReg's first consultation and this response, H3GI agrees with ComReg's position regarding issues raised by respondents to its first consultation.

### **Part 3 – Conclusions on Licensing and Technical Issues**

#### ***Service & Technology Neutral Licences***

In relation to service and technology neutrality, H3GI agrees with ComReg's proposed approach.

#### ***Spectrum Management & Technical Licensing Conditions***

##### *Limit on 900 MHz Spectrum per Operator*

H3GI agrees with ComReg's proposal to limit the amount of spectrum in the 900 MHz band that can be held by any licensee to 2 x 10 MHz. In particular, it agrees with ComReg's proposal that this cap would apply across all spectrum licences in the 900 MHz band, that is to existing, legacy (if any) and new liberalised licences. It promotes competition and ensures the efficient management and use of spectrum in accordance with ComReg's statutory objectives.<sup>3</sup>

##### *Spectrum Block Size*

H3GI agrees with ComReg's proposal that the minimum spectrum block size should be 2 x 5 MHz.

##### *Frequency Coordination and Interference Mitigation*

H3GI agrees with ComReg's proposed approach regarding frequency coordination and interference mitigation.

#### ***Non-Technical Licence Conditions***

##### *Licence Duration*

H3GI agrees with ComReg's position that a licence duration of 15 years for all new licences issued for 900 MHz spectrum is appropriate.

##### *Choice of Spectrum Award Process*

H3GI looks forward to ComReg's competition proposals.

### **Part 4 – Mobile Virtual Network Operator Access**

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<sup>3</sup> Section 12 of the Communications Regulation Act, 2002.



H3GI does not believe that an MVNO access obligation is appropriate. It is currently subject to an MVNO access obligation under its 3G Right of Use<sup>4</sup> and there is sufficient competition in the Irish mobile market to provide services to the customers of Vodafone, O2 or Meteor in the event that either of these operators were to lose or effectively lose its licence. Whilst the retail market for mobile electronic communications services in Ireland is not effectively competitive, if ComReg and the Competition Authority enforce applicable competition law, the current economic climate and the maturing nature of the mobile electronic communications sector in Ireland will create the incentives for the incumbent operators, including Meteor, to enter into genuine and national MVNO arrangements. H3GI remains willing at all times to enter into commercially acceptable MVNO arrangements.

#### **Part 5 – Consideration of Previous Consultation Options for the Release of 900 MHz Spectrum**

H3GI does not believe that the options for the release of spectrum in the 900 MHz band set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg.

#### **Part 6 – New Proposals for the Release of 900 MHz Spectrum**

H3GI prefers Option 1. It provides certainty regarding the immediate and future availability of 900 MHz spectrum on a liberalised basis, promotes competition and the interests of users and ensures the efficient management and use of spectrum in accordance with ComReg's statutory objectives.<sup>5</sup>

In relation to Option 2, it:

1. Is contrary to European Community State Aid law;
2. Contradicts ComReg's position regarding the renewal or extension of the licences of the 2G licensees;<sup>6</sup>
3. Is not based on a sufficiently thorough and rigorous analysis of the 2G legacy issues cited by the 2G licensees in their responses to ComReg's first consultation;
4. Threatens to delay the whole process of liberalising the 900 MHz band; and
5. Is inherently uncertain.

These points are expanded upon below.

H3GI agrees with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months.

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<sup>4</sup> <http://www.comreg.ie/fileupload/publications/ComReg0416.pdf>.

<sup>5</sup> Section 12 of the Communications Regulation Act, 2002.

<sup>6</sup> Section 4 of the Consultation.



Without prejudice to our position in respect of Option 1, if ComReg decides to implement Option 2, it should charge an appropriate spectrum access fee and annual spectrum fees. Licence conditions should be limited to existing services. Regulation of mobile broadband at this stage would harm the development of this product.<sup>7</sup> H3GI believes that coverage and quality of service licence obligations should reflect the services being provided by the licence holder ie if 3G services are being provided by means of 2G spectrum, licences should reflect the coverage and quality of service licence obligations contained in the licence holders' 3G licences.

### **State Aid**

Article 87 of the EC Treaty provides:

*“Save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market.”*

There are four elements of this prohibition:

1. Transfer of State resources;
2. Economic advantage;
3. Selectivity; and
4. Effect on competition and trade.

Taking each of these in turn:

1. Option 2 involves the transfer of State resources. Under Option 2, ComReg proposes to authorise Vodafone and/or O2 to provide 2G services up until 17 June 2015.
2. Option 2 confers an economic advantage on Vodafone and/or O2 that neither would have received in the normal course of business.
3. Option 2 is selective. It provides Vodafone and/or O2 with an opportunity to remedy their failure to properly plan for the expiry of their 2G licences on 15 May 2011. It does not provide for a similar benefit for either Meteor or H3GI both of whom compete with Vodafone and/or O2 in the retail market for mobile electronic communications services in Ireland (ie a benefit for failing to properly plan one's business).

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<sup>7</sup> The European Commission 14th Report on the Implementation of the Telecommunications Regulatory Package – 2008:  
[http://ec.europa.eu/information\\_society/policy/ecomm/library/communications\\_reports/annualreports/14th/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecomm/library/communications_reports/annualreports/14th/index_en.htm).



4. Finally, Option 2 has an effect on competition and trade. Vodafone and/or O2 are involved in an economic activity and operate in a market in which there is trade between Member States.

At page 35 of the Consultation, ComReg states:

*"In the interests, inter alia, of protecting mobile consumers from significant service disruption, ComReg may also consider the possibility of short-term retention of spectrum for continuity in the provision of legacy 2G services whilst the affected MNOs transition to other solutions. ComReg has developed a modified proposal to take account of any such justifiable legacy issues and is consulting on this as set out in Section 9 below."*

It is not necessary for ComReg to authorise Vodafone and/or O2 to provide 2G services up until 17 June 2015 in order to protect mobile consumers from significant service disruption. Firstly, Vodafone and O2 can bid appropriately for spectrum in the 900 MHz band under Option 1. Secondly, if they are unsuccessful in obtaining spectrum under Option 1, they can enter into a roaming agreement with Meteor (until 17 June 2015) or whomsoever is successful under Option 1. Thirdly, they can make attractive offers to their customers to transition to 3G. Fourthly, as stated in our response to ComReg's previous consultation, there is sufficient competition in the Irish mobile market to provide services to the customers of Vodafone or O2 in the event that either of these operators were to lose or effectively lose its licence. Finally, neither Vodafone, O2 nor ComReg has demonstrated why it should take either Vodafone or O2 until after 2011 to "transition to other solutions". H3GI does not believe that it should take Vodafone or O2 in excess of two years to "transition to other solutions". In the last two years, both H3GI and O2 have completed RAN infrastructure swaps without disruption to customers. H3GI completed its RAN infrastructure swap within six months. O2 completed two major swap-outs of both its 2G and 3G networks within two years. All GSM handsets have had dual band 1800/900 capability for the last number of years and the majority, if not all, of existing GSM sites are dual band. Any coverage holes could be covered by a national roaming agreement with another operator. The fact that ComReg is proposing to charge Vodafone and/or O2 for the ability to provide 2G services up until 17 June 2015 is irrelevant. Under Option 2, what ComReg is proposing to do amounts to an unjustified 'bailout' of Vodafone and/or O2 for failing to properly plan their businesses and look after their customers.

#### **Section 4 of the Consultation - Issues Raised by Respondents to ComReg's First Consultation**

Option 2 contradicts ComReg's position regarding the renewal or extension of the licences of the 2G licensees. At page 34 of the Consultation, ComReg states:

*"On the issues of regulatory certainty, efficient infrastructure investment and expectations of licence renewal, ComReg's views, in summary, are as follows:*

*i) the principles of annual licence renewal, subject to licence compliance, and of expiry at term, are of fundamental importance within the framework of a fixed licence duration. The relevant GSM licence regulations have been, and remain, very clear on*



*licence duration, annual renewal and ultimate expiry. Since the first GSM licences were issued in 1996, ComReg has, without exception, annually renewed the licences provided that the licensees demonstrate compliance with their licence obligations. ComReg proposes to continue this process within the duration of the current 15-year GSM licences;*

*ii) the Options presented in the Consultation operate on this basis, and provide further clarity to existing 2G licensees and other actual and potential users of the radio spectrum. That is, either in advance, or on expiry of the GSM licences the spectrum assigned to those licences would be released using open, transparent, non-discriminatory procedures, and objective, transparent, non-discriminatory and proportionate criteria as required under the Framework and Authorisation Regulations, respectively. ComReg's proposals in this regard recognise that demand for 900 MHz spectrum is likely to exceed supply and, in these circumstances, open, non-discriminatory and equitable opportunities to access that spectrum, such as through market mechanisms, are appropriate; and*

*iii) ComReg proposes that new licences would again be subject to a fixed licence duration (as discussed in Section 6.3 of this document)."*

### **Thorough and Rigorous Analysis**

Option 2 is not based on a sufficiently thorough and rigorous analysis of the 2G legacy issues cited by the 2G licensees in their responses to ComReg's first consultation. In this regard, H3GI refers to the standards set down by the Electronic Communications Appeal Panel ("ECAP") in ECAP Decision No. 01/05 *Hutchison 3G Ireland Limited –v- Commission for Communications Regulation* and the Court of First Instance and Court of Justice of the European Communities in *Airtours -v- Commission*, *Schneider -v- Commission* and *Tetra Laval -v- Commission*.<sup>8</sup>

### **Delay**

Option 2 threatens to delay the whole process of liberalising the 900 MHz band.

At pages 67 and 68 of the Consultation, ComReg states:

1. In mid-2009, it will invite submissions from O2 and Vodafone to support any need for them to maintain part or all of their current spectrum assignments in the 900 MHz GSM band beyond 15 May 2011;
2. It is ComReg's intention to set revised 900 MHz fees for retained spectrum licences in advance of the competition;
3. It will "*specify the relevant technical criteria and modelling approach to be used in evaluating O2 and Vodafone's submissions.*"; and

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<sup>8</sup> Case T-342/99, *Airtours plc v Commission* [2002] ECR II-2585. Case T-310/01, *Schneider Electric SA v Commission* [2002] ECR II-4071 and Case T-5/02 *Tetra Laval BV v Commission* [2002] ECR II-4381 and on appeal *Commission –v- Tetra Laval*, Case C-12/03, Judgment of the ECJ of 15 February 2005.



4. No extension of any 2G licences will be granted beyond 17 June 2015 (the expiry date of Meteor's 2G licence).

Firstly, Vodafone and O2 may argue that ComReg is obliged to publicly consult regarding: (i) the revised 900 MHz fees for retained spectrum licences; and (ii) the technical criteria and modelling approach to be used in evaluating their submissions. Secondly, ComReg will have to evaluate submissions from Vodafone and O2. Thirdly, Vodafone and/or O2 may legally challenge any decision by ComReg regarding: (i) revised 900 MHz fees for retained spectrum licences; (ii) the technical criteria and modelling approach to be used in evaluating their submissions; or (iii) their submissions. Finally, in the absence of published technical criteria and a modelling approach, Vodafone and/or O2 may legally challenge how ComReg can determine that no extension of any 2G licences should be granted beyond 17 June 2015.

Article 88 (3) of the EC Treaty provides:

*"The [European] Commission shall be informed, in sufficient time to enable it to submit its comments, of any plans to grant or alter aid. If it considers that any such plan is not compatible with the common market having regard to Article 87, it shall without delay initiate the procedure provided for in paragraph 2. The Member State concerned shall not put its proposed measures into effect until this procedure has resulted in a final decision."*

In accordance with our comments above, if ComReg decides to implement Option 2, it will have to notify the European Commission of its proposed measure. This will take at least two months.

If ComReg decides to implement Option 2, clarity and certainty in respect of all the above issues will be required in advance of any competition. As it is, in advance of the proposed competition, ComReg has to: (i) respond to this consultation; (ii) issue an Information Memorandum; and (iii) run workshops regarding the proposed competition. If ComReg does not run the competition for the award of the currently unallocated 900 MHz spectrum soon, significant economic benefits will be lost.

### ***Uncertainty***

Option 2 is inherently uncertain. Under Option 2, it will be uncertain in 2009 how much 900 MHz spectrum will be available between 2011 and 2015 and when such spectrum will become available.

### **Conclusion**

H3GI agrees with ComReg's identification of mobile broadband services as being at the heart of the future use of the 900 MHz and 1800 MHz spectrum bands. Without sufficient access to spectrum, whether the 'Digital Dividend' (790 – 862 MHz), 900 MHz, 1800 MHz or 2.6 GHz, 3G mobile network operators cannot provide the Irish consumer and economy with the full benefits of 3G, [HSPA] and 4G or 'Long Term Evolution' technology. In order to promote competition and the interests of users, contribute to the development of the internal market and ensure the efficient



management and use of radio frequency spectrum<sup>9</sup>, ComReg should implement Option 1 identified in its consultation as soon as possible.

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<sup>9</sup> Section 12 of the Communications Regulation Act, 2002.



## ANNEX 1

### Q. 1. MVNO and the competitive process:

a. What would be the impact of MVNOs on competition and investment?

b. What in your opinion would be the likely benefits and costs of ComReg inviting MVNO commitments as part of a future 900 MHz spectrum licence competition?

**In support of your response please refer to current and likely future market conditions and developments.**

H3GI does not believe that an MVNO access obligation is appropriate. It is currently subject to an MVNO access obligation under its 3G Right of Use<sup>10</sup> and there is sufficient competition in the Irish mobile market to provide services to the customers of Vodafone, O2 or Meteor in the event that either of these operators were to lose or effectively lose its licence. Whilst the retail market for mobile electronic communications services in Ireland is not effectively competitive, if ComReg and the Competition Authority enforce applicable competition law, the current economic climate and the maturing nature of the mobile electronic communications sector in Ireland will create the incentives for the incumbent operators, including Meteor, to enter into genuine and national MVNO arrangements. H3GI remains willing at all times to enter into commercially acceptable MVNO arrangements.

### Q. 2. MVNO licence commitments:

a. What should be the minimum services encompassed by MVNO licence commitments?

b. Should any services be excluded or should this be left solely to normal commercial agreement?

c. How might MVNO licence commitments be enforced? What criteria, processes and timelines might apply?

Please see the answer to question 1.

### Q. 3. MVNO Wholesale Pricing:

a. Should wholesale pricing considerations form part of any discussion on MVNO commitments?

b. What factors should form the basis of any wholesale pricing structure in the event that MVNO licence commitments are included in any future 900 MHz spectrum licences? Please support your response with the reasoning for considering any such factors.

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<sup>10</sup> <http://www.comreg.ie/fileupload/publications/ComReg0416.pdf>.



Please see the answer to question 1.

**Q. 4. MVNO Technical Issues:**

**a. Are there any technical or practical constraints to the inclusion of MVNO commitments within future 900 MHz licences in a liberalised setting? Please provide reasons for your view.**

Please see the answer to question 1.

**Q. 5. Do you believe that the Options for the release of spectrum in the 900 MHz set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg? If yes, please provide detailed supporting argument with your answer.**

H3GI does not believe that the options for the release of spectrum in the 900 MHz band set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg.

**Q. 6. Which of the two Options described above for release of spectrum in the 900 MHz band would you prefer? Please provide supporting arguments with your answer.**

H3GI prefers Option 1. It provides certainty regarding the immediate and future availability of 900 MHz spectrum on a liberalised basis, promotes competition and the interests of users and ensures the efficient management and use of spectrum in accordance with ComReg's statutory objectives.<sup>11</sup>

In relation to Option 2, it:

1. Is contrary to European Community State Aid law;
2. Contradicts ComReg's position regarding the renewal or extension of the licences of the 2G licensees;<sup>12</sup>
3. Is not based on a sufficiently thorough and rigorous analysis of the 2G legacy issues cited by the 2G licensees in their responses to ComReg's first consultation;
4. Threatens to delay the whole process of liberalising the 900 MHz band; and
5. Is inherently uncertain.

These points are expanded upon above.

H3GI agrees with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months.

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<sup>11</sup> Section 12 of the Communications Regulation Act, 2002.

<sup>12</sup> Section 4 of the Consultation.



Without prejudice to our position in respect of Option 1, if ComReg decides to implement Option 2, it should charge an appropriate spectrum access fee and annual spectrum fees. Licence conditions should be limited to existing services. Regulation of mobile broadband at this stage would harm the development of this product.<sup>13</sup> H3GI believes that coverage and quality of service licence obligations should reflect the services being provided by the licence holder ie if 3G services are being provided by means of 2G spectrum, licences should reflect the coverage and quality of service licence obligations contained in the licence holders' 3G licences.

**Q. 7. What variations of the two Options should ComReg consider in finalising the process? Again please provide supporting arguments with your answer and suggest a detailed alternative if applicable.**

Please see the answer to question 6.

**Q. 8. Are there any other new Options that ComReg should consider? Please provide supporting arguments with your answer.**

Please see the answer to question 6.

**Q. 9. In the above Options, do you agree with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months?**

H3GI agrees with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months.

**Q. 10. Under Option 2, and in the event that the existing 900 MHz licensees wish to continue use of their frequency assignments beyond the expiry dates of their current licences, do you agree with the principles ComReg has outlined for use when setting an increased spectrum fees levy appropriate for those extended licences? Please provide supporting arguments with your answer and suggest a detailed alternative if applicable.**

Without prejudice to our position in respect of Option 1, if ComReg decides to implement Option 2, it should charge an appropriate spectrum access fee and annual spectrum fees.

**Q. 11. It is ComReg's intention to include conditions in any new 900 MHz licences issued.**

**a. Should the conditions be limited to existing services such as voice and text or be broadened to include other services such as broadband?**

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<sup>13</sup> The European Commission 14th Report on the Implementation of the Telecommunications Regulatory Package – 2008:  
[http://ec.europa.eu/information\\_society/policy/ecomm/library/communications\\_reports/annualreports/14th/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecomm/library/communications_reports/annualreports/14th/index_en.htm).



Conditions should be limited to existing services. Regulation of mobile broadband at this stage would harm the development of this product.<sup>14</sup>

**b. What kind of conditions (e.g. Coverage, Roll-Out, Quality of Service, etc.) should be included?**

**c. At what level should these conditions be set?**

**Please provide reasons for your views.**

H3GI believes that coverage and quality of service licence obligations should reflect the services being provided by the licence holder ie if 3G services are being provided by means of 2G spectrum, licences should reflect the coverage and quality of service licence obligations contained in the licence holders' 3G licences.

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<sup>14</sup> The European Commission 14th Report on the Implementation of the Telecommunications Regulatory Package – 2008:  
[http://ec.europa.eu/information\\_society/policy/ecomm/library/communications\\_reports/annualreports/14th/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecomm/library/communications_reports/annualreports/14th/index_en.htm).



## ANNEX 2

### COMMENTS IN RESPECT OF SUBMISSIONS TO COMREG'S FIRST CONSULTATION

#### **Vodafone, O2 and Meteor**

H3GI does not agree with submissions made by Vodafone, O2 and Meteor to ComReg's first consultation. Vodafone, O2 and Meteor fail to demonstrate that ComReg's proposals will have the effects claimed. In particular, H3GI does not agree with the outcome of the spectrum refarming trial conducted by Vodafone and referred to in the letter from Mr Gerry Fahy, of Vodafone to Mr John Doherty, of ComReg dated 12 March 2009. Vodafone's trial is neither objective nor transparent. The choice of Donegal as one of the geographic area for the trial lends itself to the outcome of Vodafone's trial. Whilst Vodafone made a presentation to the rest of the mobile sector on 17 April 2009 in respect of the trial, it did not provide the rest of the mobile sector with sufficient information to properly analyse and respond to same.

### **3 Ireland Offline**



Ireland Offline

Response to Consultation Document 09/14 30 April 2008

## **“Liberalising the Future Use of the 900 MHz and 1800 MHz Spectrum Bands & Spectrum Release Options”**

Ireland Offline View.

We fully understand that many of the options discussed in this consultation may be taken out of the hands of Comreg and implemented by the EU Commission by way of amending or replacing the GSM Directive .

We are equally cognisant of the many structural weaknesses in the Irish Market , particularly the concentration of wireless deployments in urban areas at the invariable expense of rural areas .

We feel that every significant Spectrum Award , eg 3g , 3.5GHz etc has led to further deployments of services in areas that were already well served in communications terms and that no account has been taken of rural areas. This is a consequence of flawed thinking as to the overall functioning of the market when evidence shows that it is not so.

We further feel that sub 1Ghz Wireless technologies are of crucial importance in Rural areas given their much greater reach and penetration but that Comreg has never recognised this formally and has never adapted any licencing scenarios to deal with this problem.

We therefore urge Comreg to carry out a detailed survey , based on but not relying on the data underpinning the National Broadband Scheme mapping project . The purpose of the survey is to accurately identify the rural areas with the highest communications deficits in Ireland

We then propose that Comreg take this opportunity to remediate the situation . In the 900mhz band the two key events due over the next 3 years are:

1. Surrender of GSM licences by O2 and Vodafone
2. Allocation of 13MHz of unused spectrum .

In addition we urge Comreg to unused Digiweb spectrum and the Railway GSM spectrum to the available pool , certainly the latter .

We note from the Document 09/14 that:

“A total of six operators have expressed an interest in acquiring spectrum in the 900 MHz bands. The combined level of demand expressed exceeds 2 x 40 MHz in the 900 MHz band where there is only 2 x 35 MHz available in total.”

However Comreg did not trouble us with any information on the technologies for which there apparently is spectrum demand leading to a suspicion that this will simply be another spectrum land grab and that least served areas shall suffer disproportionately again from market dysfunction

We agree with the Comreg view stated in Document 09/14 that the efforts made to retain existing GSM licences beyond 2011 by both Vodafone and O2 are utterly frivolous and that a new licensing framework is inevitable in the near term .

This gives all stakeholders, not least O2 and Vodafone , an opportunity to complete the rollout of the Mobile telephony networks under licencing terms requiring adequate indoor reception in the 900MHz band for every citizen of the state . However this condition should not be universal as market measures will largely ensure it in certain areas.

We accordingly call for Comreg to mandate the following at the end of this consultation process.

1. In the least served 50% of the State by area Indoor reception for 100% of residents in the 900MHz band shall be a condition of any licences issued post 2009 in the 900MHz band. We believe that 85% GEO 6dBSNR min Mobile and 99% GEO 23dB SNR fixed (both outdoor measures at premises ) , Fixed 23dB SNR @ 6m high with upto 13dBi gain . Mobile/Nomadic @ 1.2m high with -2dBi gain omni will give 100% population coverage in the Deficit area and we expect Comreg to lay this minimum mandatory and easily verifiable limit down for all licencees in the 900Mhz bands in those areas .
2. In the best served 50% of the state by area this shall not be a licencing requirement and the market shall ( on balance) be allowed to function without specifying SNR minima in any licence in the best served 50% of the State by area.

3. This condition shall not apply to more difficult spectrum over 1GHz where it would be too onerous and costly .
4. We expect Comreg to published their list of the least served 50% of areas in the state for informed and extended public consultation and in a timely manner .
5. Considerable Latitude is to be given operators who are licenced under the Terms of Point 1 ( ante) to share equipment/masts and to pool spectrum allowing greater N reusage on a collective basis in the least served 50%
6. No spectrum squatting shall be tolerated in these underserved areas. Any licensee not using their full spectrum allocation in a timely manner or failing that ensuring its use by a competitor on a licensing basis shall forfeit their entire national allocation.
7. As universal coverage shall not be mandated in the best served 50% of the state by area this condition (6) shall not apply if areas are unserved there .

We believe that this is consistent with Comreg stated objective in Document 09/14

“ComReg must take **all reasonable measures** which are aimed at achieving that objective, including

- a. Ensuring that users derive maximum benefit in terms of choice, price and quality;
- b. Ensuring that there is no distortion or restriction of competition in the electronic communications sector;
- c. Encouraging efficient investment in infrastructure and promoting innovation; and
- d. Encouraging efficient use and ensuring the effective management of radio frequencies;”

In fact we believe that any other approach is not “**Effective**” given the plentiful information to hand on previous rollouts .

We believe that licences issued under the best / worst served geographically asymetric conditionalities should be issued for 15-20 years to ensure certainty . We note the industry has indicated this already in the responses to earlier consultations .

We note that the 1800MHz band is grossly underutilised at present and we also note that the industry has not yet quite begun a vociferous campaign to grab that in the longer term . This is not very acceptable but Comreg appears to accept the situation and did not suggest a remedy.

"ComReg notes that the existing GSM licensees are not using the 1800 MHz spectrum assigned to them to its fullest extent. In light of the above factors, ComReg remains of the view that there is not currently a pressing requirement to hold a competitive award process for 1800 MHz spectrum before 2013. "

We are amenable to fractional voice and sms 2G GSM services being offered in parallel until 2017 given the profusion of 2G GSM devices on issue and that a new entrant @900MHz be given that right too.

We are amenable to licences being converted at the 8 year mark to a more open ended form as long as the then current regime can be proven to have resulted in a marked improvement in provision in now badly served areas and where future technology developments and EU regulations do not conflict with the extension of the licences or where the fixed term licences run the risk locking us into old and suboptimal technologies going forward from then.

We additionally note that the currently assigned 1800MHz spectrum is not best used in Ireland but do not have a strong view on these bands as they are of considerably less importance than the sub 1000MHz bands in a country such as ours.

Now to the questions .

Q1 2 3 and 4 concern MVNO activity in the market . We believe that our proposals on spectrum usage and pooling will inevitably allow an MVNO to go with more than one operator in many areas and that this will enhance competition . However we believe that price caps on origination termination data and blended arpu etc will make more of a difference than MVNO entry would .

Q5. Do you believe that the Options for the release of spectrum in the 900 MHz set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg? If yes, please provide detailed supporting argument with your answer.

Within the framework principles laid out above by Ireland Offline , yes.

Q6-Q11

We urge Comreg to do all this again and to do it properly next time.

The proposals overall do not recognise : inter alia

1. 5MHz bands are too narrow and restrictive
2. 2 x 10MHz bands allows more flexibility on usage in rural areas
3. The alternative of licencing one block in the underserved 50% or in the whole of the state has not been explored adequately if at all , this large block approach would make it more suitable for certain broadband uses .
4. The withdrawal of non compliant licences awarded to Wirefree, Digiweb and Mobisoft should have been a pre requisite to this consultation .
5. The Railway GSM spectrum should have been included .
6. This Consultation should encompass all those bands and the aggregate would be much larger and the band plan could reflect that . These allocations are in the hapenny place because of that . Go do it ALL again !

With all said that the answers are , insofar as we can answer .

Q. 6. Which of the two Options described above for release of spectrum in the 900 MHz band would you prefer? Please provide supporting arguments with your answer

Option 2 ( Phased) would be best once Comreg has reviewed the totality of the spectrum and band sizes, see below .

Q. 7. What variations of the two Options should ComReg consider in finalising the process? Again please provide supporting arguments with your answer and suggest a detailed alternative if applicable

No variation suffices . Both options are irrelevant with such a small allocation .

Q. 8. Are there any other new Options that ComReg should consider?  
Please provide supporting arguments with your answers

Yes. Plenty .

Either

a) Auction as a single block including GSMR and non compliant Digiweb spectrum.

OR

b) pair it with 750.. 862MHz and sell as two blocks

OR

c) pair it with 1800 MHz and sell as two blocks (less good option)

In the 2 block scenario, one block for Mobile, Nomadic or Fixed and one block for Fixed Wireless only

OR

(d) Wait until the next consultation closes Next week on Digital Dividend and then add it to the 800MHz band and pair it with spectrum in 300MHz to 500MHz, band

**We prefer D in Ireland Offline.**

Q. 9. In the above Options, do you agree with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months?

No.

The time period and existing GSM licences should be extended till ASO occurs , likely in 2015 so as to have a unified plan for 900MHz and the sub 900MHz Digital Dividend spectrum .

1800MHz can be added to 3g plans in 3G core spectrum .

Q. 10. Under Option 2, and in the event that the existing 900 MHz licensees wish to continue use of their frequency assignments beyond the expiry dates of their current licences, do you agree with the

principles ComReg has outlined for use when setting an increased spectrum fees levy appropriate for those extended licences?

Please provide supporting arguments with your answer and suggest a detailed alternative if applicable

No. Costs are passed on to users. Spectrum licencing should not be a revenue raising exercise PRIMARILY, but be about optimising the State's Infrastructure in public/Private partnership

We believe that if the Department of Finance is laying down a minimum take from this round that the consultation should not have proceeded in the absence of disclosure of that minimum take !

Q. 11. It is ComReg's intention to include conditions in any new 900 MHz licences issued.

- a. Should the conditions be limited to existing services such as voice and text or be broadened to include other services such as broadband?
- b. What kind of conditions (e.g. Coverage, Roll-Out, Quality of Service, etc.) should be included?
- c. At what level should these conditions be set?

Please provide reasons for your views.

Proper actual deployment coverage. monitored by 3rd parties or by Comreg in the field is a requirement here Indoor coverage monitoring will require much better NIR survey field work than has heretofore been the case and spot penalties for non compliance should reflect the cost of that monitoring.

The services should be IP only. We have enough Voice, TV & Radio. The IP can of course carry unicast VOD, or broadcast Video/Audio and VOIP voice and IP based text/presence.

A suitable proportion of spectrum should be for true fixed wireless services as that gives x8 to x20 capacity compared to Mobile for data, always, forever, no matter how good the technology is.



## **4 LM Ericsson**

# **Liberalising the Use of the 900 MHz and 1800 MHz Spectrum Bands**

## **Ericsson's Response to ComReg Further Consultation Document 09/14**

**April 2009**

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### **1. General comments**

LM Ericsson ("Ericsson") welcomes the opportunity to comment on ComReg's further consultation Liberalising the Use of the 900 MHz and 1800 MHz Spectrum Bands 09/14.

As per our previous response Ericsson shares ComReg's view as to the strategic importance of the radio spectrum as a national asset. Spectrum has an increasingly important role to play in the development of new technologies and services and we are approaching a time of major opportunities of significant national importance in this respect. These opportunities demand a measured and appropriate policy response in terms of spectrum licensing as well as co-operation within the industry (while still ensuring that competition is maximised) if the maximum benefits of this opportunity are to be realised in Ireland.

Investment in infrastructure during the high growth period we have witnessed over the last 20 years has been driven by business and industry growth. However, in the current economic climate the need for 'big picture' thinking, combined with stability and secure investment in our telecoms infrastructure are vital for our economic and social development as a modern knowledge-based and environmentally sustainable economy. Both incumbents and any potential new entrants face significant challenges in raising investment in the current environment. Ericsson would like to re-iterate our view that a greater level of discussion, understanding and co-operation between Government, ComReg and industry players will be necessary if we are to realise the sort of competitive telecommunications infrastructure with wide geographical and demographical availability of advanced communication services that we need to compete as a modern knowledge-based and environmentally sustainable economy.

### **2. New Technologies**

The future use of the 900 and 1800 MHz spectrum is an important issue in the context of 3GPP standards and 4G Long-Term Evolution (LTE and LTE-Advanced) , given the requirements of wider channel widths of 10, 20 and even 40 MHz channel requirements that could feasibly be made in this band. In addition LTE can co-exist with GSM in the same band and Ericsson would be happy to share information to satisfy ComReg in this regard. To this end we believe that the 1800MHz band should be included in this auction process

While the developing economics of the telecommunications business is driving operators to share infrastructure on an ever increasing basis, technological changes

in terms of optimal channel bandwidths are also likely to lead to more shared resources. To this end, regardless of how the liberalisation occurs, Ericsson would urge ComReg to allow for the utmost flexibility in spectrum co-ordination, spectrum swapping and even spectrum sharing in the future license conditions.

## **2. Spectrum Licensing and Allocation**

The liberalisation of the GSM spectrum presents ComReg with an important opportunity to facilitate and encourage the deployment of high-speed mobile broadband services on a ***nationwide*** basis similar to GSM. In particular the 900MHz band with its excellent propagation characteristics has the potential to greatly reduce both the fixed and mobile digital divide as well as greatly enhancing indoor coverage and throughput in urban and suburban environments. We believe that it is vital – given the significant societal and economic benefits arising from such network deployment – that the licensing and allocation is done in a way that in the long run delivers the best economic and social return possible to the Irish people.

Spectrum sub 1GHz is one of our most valuable natural resources and as such has the potential to deliver the greatest benefit to society. Ericsson agrees with ComReg with regard to making a pre-condition of the reallocation of the 2G spectrum and the reassignment of any unused 900 MHz spectrum that this spectrum is utilised for the deployment of nationwide mobile broadband networks providing coverage at least equal to that of GSM. Experience from the deployment of existing 2G and 3G networks shows that maximum take-up of services and, hence, benefits from the use of these services derive to customers, operators and the wider economy only where there is nationwide deployment.

The trend in which spectrum usage rights are assigned is moving away from the previous “beauty contest” approach to more flexible methods based predominantly (though not exclusively) on auctions. ComReg itself has already begun to move in the same direction, with the use of first-come-first-served assignments and sealed bid auctions (including a Sealed Bid Combinatorial auction for assignments in the 26 GHz band). While differing methodologies have their advantages, a pure economic model that does not take account of social and longer term economic benefit should be avoided. To this end we welcome ComReg’s intention to include conditions in any new licenses issued.

## **2. Answers to Questions**

### **Q. 1. MVNO and the competitive process:**

- a. What would be the impact of MVNOs on competition and investment?**
- b. What in your opinion would be the likely benefits and costs of ComReg inviting MVNO commitments as part of a future 900 MHz spectrum licence competition?**

### **Ericsson Response:**

- a.) Ericsson has not done any economic analysis to have a qualified position.

b.) As above.

**Q. 2. MVNO licence commitments:**

**a. What should be the minimum services encompassed by MVNO license commitments?**

**b. Should any services be excluded or should this be left solely to normal commercial agreement?**

**c. How might MVNO license commitments be enforced? What criteria, processes and timelines might apply?**

**Ericsson Response:**

As per our response in consultation paper 08/57, Ericsson believes that in general regulators should not use the licensing process to pursue unrelated regulatory or policy goals. Regulated MVNO access should only be considered following a market review of the relevant market undertaken in accordance with the prevailing EU-wide regulatory framework. If such a market review (of the market for wholesale access and call origination) results in findings of market power, ComReg is then entitled to submit its findings to the European Commission (under the so-called “Article 7 procedures”) and, if the Commission raises no objections, to impose appropriate remedies – which could include MVNO access – on those operators which have been designated with SMP.

It would be inappropriate for a regulator to attempt to side-step the existing regulatory framework and it would be completely disproportionate for it to impose ex ante regulatory obligations on operators without first determining whether or not those operators possess market power. It is, indeed, very likely that any such plans would be in conflict with the existing regulatory framework and that ComReg would run into legal difficulties in attempting to impose such an obligation as part of the licensing process. In light of ComReg’s own view that the liberalisation of this spectrum should happen as soon as possible the risk of liberalisation being tied up in any legal battle should be avoided.

**Q. 3. MVNO Wholesale Pricing:**

**a. Should wholesale pricing considerations form part of any discussion on MVNO commitments?**

**b. What factors should form the basis of any wholesale pricing structure in the event that MVNO license commitments are included in any future 900 MHz**

**spectrum licenses? Please support your response with the reasoning for considering any such factors.**

**Ericsson Response:**

a.) & b.) As per our response to the previous question we believe it would be inappropriate for a regulator to attempt to side-step the existing regulatory framework and it would be completely disproportionate for it to impose ex ante regulatory obligations on operators without first determining whether or not those operators possess market power. In light of ComReg's own view that the liberalisation of this spectrum should happen as soon as possible the risk of liberalisation being tied up in any legal battle should be avoided.

**Q. 4. MVNO Technical Issues:**

**a. Are there any technical or practical constraints to the inclusion of MVNO commitments within future 900 MHz licenses in a liberalized setting?**

**Ericsson Response:**

a.) As per our response to the previous two questions we believe it would be inappropriate for a regulator to attempt to side-step the existing regulatory framework and it would be completely disproportionate for it to impose ex ante regulatory obligations on operators without first determining whether or not those operators possess market power. In light of ComReg's own view that the liberalisation of this spectrum should happen as soon as possible the risk of liberalisation being tied up in any legal battle should be avoided.

**Q. 5. Do you believe that the Options for the release of spectrum in the 900 MHz set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg?**

**Ericsson Response:**

a.) No. For reasons outlined in our response to consultation 08/57.

**Q. 6. Which of the two Options described above for release of spectrum in the 900 MHz band would you prefer?**

**Ericsson Response:**

Ericsson is happy that ComReg has taken on board the feedback from all respondents to consultation 08/57 and has come up with two new proposals which are significant improvements. Ericsson does not have a significant preference for either Option. We would have a minor preference for the first option 1.) Only in that it would provide a

greater level regulatory and business certainty. Ericsson would still be of the view that a 5MHz block should be reserved on a technology neutral basis for each incumbent and a 5MHz block for a new entrant.

**Q. 7. What variations of the two Options should ComReg consider in finalising the process? Again please provide supporting arguments with your answer and suggest a detailed alternative if applicable.**

**Ericsson Response:**

ComReg states that “As a pre-condition of entry to the auction, all existing 900 MHz licensees would be required to enter into a Memorandum of Understanding (MoU) under which they would agree to co-operate with other licensees and ComReg on re-alignment of their current licensed frequency assignments to facilitate use of the new assignments arising from the competition. This re-alignment process may also involve the retuning of an existing operator’s network to a different spectrum assignment in order to comply with the 2 x 10 MHz spectrum cap. ComReg envisages that such realignment process would be completed within a short timeframe not exceeding 6 months.”

In either option it is not clear how this would be achieved practically. Ericsson would have the view that the auction should have two stages. The first stage operators would bid for the amount of spectrum they require i.e. 5MHz or 10MHz. The second stage operators would then bid for which 5MHz blocks they want. In this way the process is more transparent and potential less fractious.

**Q. 8. Are there any other new Options that ComReg should consider?**

**Ericsson Response:**

Other that already stated in our answers to Q8 and Q9, no.

**Q. 9. In the above Options, do you agree with ComReg’s proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months?**

**Ericsson Response:**

Each operator’s network differs significantly in terms of architecture, design and modernity of its infrastructure. Without some detailed analysis we would not be in a position to comment.

**Q. 10. Under Option 2, and in the event that the existing 900 MHz licensees wish to continue use of their frequency assignments beyond the expiry dates of their current licenses, do you agree with the principles ComReg has outlined for use when setting an increased spectrum fees levy appropriate for those extended licenses?**

**Ericsson Response:**

No. If the licences were extended on a technology neutral basis we believe ComReg might have some justification for increased spectrum fees.

**Q. 11. It is ComReg's intention to include conditions in any new 900 MHz licenses issued.**

**a. Should the conditions be limited to existing services such as voice and text or be broadened to include other services such as broadband?**

**b. What kind of conditions (e.g. Coverage, Roll-Out, Quality of Service, etc.) should be included?**

**c. At what level should these conditions be set?**

**Ericsson Response:**

a.) Yes, Ericsson is of the view that they should be broadened to include other services such as broadband.

b.) Ericsson is of the view that Coverage, Roll-Out, Average end user speed and average end user latency should be considered in consultation with the industry.

c.) Ericsson is of the view that should be considered in consultation with the industry. We would suggest something like:

Coverage: Same as current GSM Licences

Roll-Out: Around 24 months

Average end user speed: Something in the range of 2-5 Mb/s

Average end user latency: Something in the range of 50-80 ms

## **5 Meteor Mobile Communications**



***Meteor Mobile Communications Ltd.***

***Response to Consultation 08/57 & Further Consultation - Liberalising the Future Use of the 900 MHz and 1800 MHz Spectrum Bands & Spectrum Release Options, ComReg Document 09/14***

***30 April 2009***

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## ***A. EXECUTIVE SUMMARY***

Meteor welcomes the opportunity to respond to ComReg's Response to consultation and further consultation on Liberalising the Future Use of the 900 MHz and 1800 MHz Bands and Spectrum Release Options, ComReg Consultation Document 09/14.

It is noted that the regulator has decided not to progress on the basis of the original proposals outlined in ComReg Consultation Document 08/57, and is now consulting on two new options for spectrum release and future assignment.

In Meteor's view these new options do not address the legitimate and fundamental concerns raised by Meteor in its earlier response. In particular, ComReg's proposal for release continues to be based on auctioning the entire 900 MHz band. As explained before, this would seriously damage the current mobile market and undermine Meteor's and other operators' ability to compete, invest and develop their networks.

In its response to Consultation Document 08/57, Meteor outlined a reasonable, objectively justified and proportionate structure for access and use of the 900 MHz band. In summary, Meteor's proposal involves the assignment of 2 x 10 MHz to all existing 900 MHz licensees and the assignment or auctioning of unassigned spectrum to a new entrant to the band. As and when the requirement to maintain such spectrum diminishes, over the next several years, operators could agree to a realignment of all spectrum allocations, each with a 5 MHz assignment allocation, providing ComReg with an opportunity to re-assign the remaining spectrum vacated by the current licensees.

In Consultation Document 09/14 ComReg appears to have rejected out of hand the proposal for future access advanced by Meteor and indeed the other operators licensed to provide services within the 900 MHz band. It is extremely alarming and worrying that alternative solutions to both future licensing and liberalisation independently advocated by all current users have been so dismissed by the regulator, demonstrating scant regard to the concerns shared across the industry.

It is Meteor's very strong view that none of the options for release of spectrum proposed by ComReg (including the new options for spectrum release) is acceptable. Meteor supports the objective of a competitive mobile market in Ireland, however ComReg's proposals do not actually promote competition. On the contrary, ComReg's proposals fail to take account of a fundamental aspect of ComReg's statutory objective to promote competition, namely the promotion and protection of "efficient investment in infrastructure" as per section 12 of the Communications Regulations Act, 2002. ComReg's proposals ignore investment made by Meteor to date in furtherance of its licence. This undermines not only Meteor's position but the confidence of investors in the regulation of electronic communications in Ireland. This in turn does not promote competition, ultimately to the detriment of consumers

This response document will again highlight the reasoning behind Meteor's rejection of options advanced by the regulator and demonstrate why they would particularly undermine Meteor's ability to compete within the mobile market ultimately damaging the entire industry at such an economically challenging time.

In this response, Meteor reiterates and amplifies its original concerns. Meteor considers that ComReg has failed to adequately assess alternative options, in particular the solution advocated by it. Meteor further considers that ComReg has infringed its legitimate expectation to the retention of the 900 MHz spectrum until the end date of its 3G licence.

This legitimate expectation arises from an unequivocal statement to this effect made by ComReg's predecessor, the ODTR, during the 3G licensing process.

Meteor also addresses a number of practical implications of what has been proposed by ComReg. It expresses concern as to potential serious disruption and harm which would be caused to consumers if ComReg's proposals are adopted. Meteor is also concerned as to the impact of the proposals on its very significant investment in the 900 MHz spectrum.

Meteor considers that ComReg, in disregarding options proposed by it and by other users of the 900 MHz spectrum, has failed to comply with its statutory obligation to ensure the effective management and use of radio frequencies. Meteor is also concerned with the fact that ComReg's approach differs from best practice as established in other jurisdictions.

Meteor does not accept the economic rationale given by ComReg for its proposals. It is concerned in particular at the absence of a regulatory impact assessment of its proposals. Finally, Meteor considers that ComReg has failed to have proper regard to the wider policy context, in particular to the 1800 MHz spectrum and to the digital dividend.

In responding to the specific queries which have been raised by ComReg, Meteor first emphasises that ComReg lacks the power to impose the MVNO obligations which are proposed by it. It goes on to respond to the various questions without prejudice to this fundamental contention.

In conclusion, having regard to the various relevant factors and to ComReg's legal obligations, Meteor urges ComReg to revisit its options for a second time to ensure that its concerns are addressed and reflected in any proposed way forward.

## ***B. ADMINISTRATIVE ASSIGNMENT***

### ***(1) ComReg Should Reconsider its Proposals***

Further to a critique of the original proposals in Meteor's response to Consultation Document 08/57, an alternative option for spectrum release was advanced which would balance both objectives of current licensees with an enhancement of competition.

Meteor's proposal allows for an expansion of the spectrum assignment to operators currently licensed within the band to allow for a transition from 2G to 3G services, coupled with a competitive award for a new fourth licence to operate within the 900 MHz band. It is disappointing that ComReg has dismissed this alternative and, despite arguments as to why an auction held now would be counter-productive, remains wedded to the concept of a costly and disruptive auction in the near term.

Not only has the regulator dismissed the legitimate commercial and legal concerns and an alternative option proposed by Meteor, it is important to note that the solution proffered shares many similarities with suggestions made by a number of other respondents. The regulator has, therefore, dismissed the commercial and legal concerns of all current users arguing that, as it believes that demand will exceed supply, auctioning future rights to all spectrum at 900 MHz sooner rather than later is in the interest of the consumer. It is important to note, however, that ComReg has not produced any evidence of the likelihood or otherwise of this occurring.

All current operators within the 900 MHz band submitted that, subject to agreement between existing 900 MHz licensees, the terms of existing licences should be amended to increase the spectrum holdings of each existing licensee from 2x7.2 MHz to 2x10 MHz and to alter the frequencies covered under each licence. Such a solution would also leave spectrum available to assign a single 2x5 MHz spectrum block at auction in which existing licensees would not participate.

This solution, advanced by Meteor, would allow the market to benefit from the most technically efficient use of spectrum as soon as possible, whilst at the same time ensuring that operators currently licensed to provide 2G services can continue to meet all licence requirements and commitments to subscribers. It is a transitional arrangement that would cause the least disruption to the market, whilst also allowing the regulator to realise the full potential of spectrum available in a newly liberalised market.

The rationale for this approach is based on the fact that auctioning future rights to all 900 MHz spectrum in isolation and at the current time would cause enormous regulatory uncertainty and is neither justified nor proportionate. It is also grounded on the fact that regulatory intervention (on the basis of that proposed by the regulator) would create significant market uncertainty, the implications of which would seriously undermine competition and innovation, an impact that would not only be felt by operators but consumers as well.

The decision, therefore, by the regulator to dismiss the above solution out of hand and to proceed on two alternative options for spectrum release based on a hybrid of its original proposals is wholly unjustified and if reform proceeds on this basis will cause serious long-term disruption to the mobile market in Ireland.

## ***(2) An Alternative Solution***

All arguments originally advanced by Meteor in rejecting the three original options for renewal of access rights can also be applied to the new options proposed in Consultation Document 09/14. Meteor does not propose to reiterate those arguments in this response, however it should be noted that Meteor firmly believes that those arguments still apply and that ComReg has not addressed them in any meaningful way in Consultation Document 09/14.

As regards the new options proposed in Consultation Document 09/14, both alternative options for future spectrum assignments and access rights would require operators to participate in an auction for rights to continue to operate within the 900 MHz band. The arguments, therefore, as to why this is an inappropriate solution equally apply.

However, in rejecting the concerns highlighted to date, Meteor maintains that the regulator has failed to appreciate the implications for Meteor in advancing with an auction solution in the near term. Meteor also contends that the new options proposed seriously undermine the provision of services and should be viewed as a reckless intervention in the market on behalf of the regulator.

In light of the above, it is important for Meteor to again argue that a negotiated solution whereby existing users of the spectrum extend their assignment to allow for a technology transition, whilst at the same time ensuring access for an additional operator within the band, is an appropriate alternative to spectrum assignment reform in the current circumstances.

Meteor's proposal is as follows:

- 2x10 MHz will be assigned to all existing 900 MHz licensees by expanding each operator's holding so that each has a contiguous 2x10 MHz block that includes as far as possible their current spectrum assignment. This could mean the following direct assignment of blocks: Meteor -930-940 / 885-895MHz, Vodafone 940-950/895-905 MHz; O2 950-960/905-915 MHz. The remaining 2x5 MHz of currently unassigned spectrum could be administratively assigned or auctioned to a new entrant to the band, at the earliest opportunity considered appropriate by ComReg.
- As demand for GSM services gradually declines, the requirement to maintain both spectrum for GSM services and 3G services diminishes. Once this point is reached, over the next several years, operators could agree to a realignment of all spectrum allocations, each with a 5MHz assignment allocation. This would provide ComReg with an opportunity to re-assign the remaining spectrum vacated by the current licensees.

As previously stated, Meteor argues that a determination on future access rights to 900 MHz spectrum should not be made in isolation from other spectrum bands capable of being utilised by the mobile sector for the delivery of broadband services.

It is essential that network operators function within an environment whereby coherent, strategic and holistic management of mobile spectrum is the foundation for regulatory intervention. With this in mind, while Meteor can accept that reform is required to allow for the provision of mobile broadband, it cannot be accepted that this should be managed in a piecemeal fashion as currently advocated. Such an approach can only damage the sector in the long-term as operators are being forced to make decisions now on spectrum access

without a complete knowledge of additional options that may become available in the short to medium term.

### ***(3) Assignment of the 1800 MHz Band and the Digital Dividend***

Rushing through a potentially damaging solution on 900 MHz spectrum only, when 1800 MHz access and access to the digital dividend are not part of a solution, is potentially damaging to the entire sector. Therefore, with respect to 1800 MHz, Meteor would maintain that the assignment currently utilised by Meteor should be renewed or restated, in conjunction with the 900 MHz assignment.

In relation to spectrum that could be available for the provision of mobile broadband services once the transition from analogue broadcasting to digital is complete (i.e. the digital dividend), it is important that the government and the regulator make a clear statement to the industry as soon as possible as to its future release. Long-term planning is essential for the industry and reserving a position could result in a distortion of the current market. Again Meteor would maintain that a holistic approach is what is required.

## ***C. METEOR'S ORIGINAL CONCERNS***

Meteor's rejection of the original three options for reform were centred on the following key issues which, it was argued within the response to consultation, had not been adequately explored by the regulator:

- Failure by the regulator to adequately assess alternative options
- Licensing policy and the legitimate expectations and interests of existing licensees
- The promotion of competition
- The implications for consumers
- The impact on investment
- The efficient use and management of radio frequencies
- Economic Rationale for action
- A requirement to follow best practice as established through international precedents
- The wider policy context

In assessing all issues highlighted above, however, Meteor would contend that the current consultation document has failed to adequately address and indeed accept any of the concerns raised. In so doing, ComReg is advocating a basis for reform that fundamentally undermines a competitively functioning market and therefore has failed in a number of its stated objectives, i.e.:

- to promote competition,
- to develop the internal market,
- to promote the interests of users within the Community, and
- to ensure the efficient management and use of the radio frequency spectrum.

The following will address each of the concerns raised in turn and, in light of the alternative Options now proposed, offer further arguments as to why the regulator should again reassess the options for future release.

### ***(1) Failure by the regulator to adequately assess alternative options***

In Meteor's response to Consultation Document 08/57, a solution was advocated based on an extension of the spectrum assigned to existing operators within the band on a newly liberalised basis. Such a solution would be coupled with an auction for the remaining unassigned 2x5 MHz block: an auction in which existing users of 900 MHz spectrum would not participate.

The administrative assignment approach on which this solution is grounded was dismissed by ComReg on the basis that it favours current operators within the band and that as ComReg contends demand is likely to exceed supply, auctioning the entire band is proportionate and reasonable. It should be pointed out, however, that ComReg has offered no substantive evidence as to why it feels demand for spectrum within the 900 MHz band is likely to exceed to supply, therefore, such an argument should not be relied upon as a basis for an auction solution at the current time.

Meteor, therefore, cannot accept this rationale and indeed would question whether ComReg has followed its own strict interpretation of what is required in the new options proposed for spectrum release.

Meteor's proposal is not a solution which favours existing licensees. Meteor's solution is in fact more a solution that would ensure that operators currently providing GSM services, for which there exists continuing demand (please note that the vast amount of services carried on Meteor's network are provided over 2G technology) will be in a position to continue to provide services to 2G subscribers whilst at the same time ensure that spectrum is utilised in the most technically efficient manner possible, and to the greatest advantage for consumers.

Meteor submits that it is entirely unreasonable to expose operators to a situation whereby access to vital spectrum for the provision of services is threatened with the potential scenario where one or more existing operators is forced out of the band.

Under the new options proposed by ComReg for spectrum release, the regulator itself proposes a scenario whereby the spectrum currently assigned to two operators within the band is extended up to the date of expiry of the spectrum currently assigned to Meteor, i.e. 2015. In so doing, ComReg has demonstrated that it is entirely possible for the regulator to extend the duration of a license without recourse to an auction format.

Without prejudice to Meteor's assessment of Option Two, Meteor argues that, as demonstrated by the regulator's own proposals, discretion in licensing does exist.

The expectations of current users, the requirement to allow for and benefit from a more efficient technology and the continuing needs of 2G subscribers, place access provision with respect to 900 MHz spectrum in a unique position. It is not simply possible to view access on the same basis one would view access to currently vacant spectrum and advance access proposals based on a stark auction format.

It is for this reason that Meteor would again argue the need for managed assignment to ease the transition from the provision of 2G service to 3G.

## ***(2) Licensing policy and the legitimate expectations and interests of existing licensees***

In its response to legitimate expectations arising from national and international considerations, ComReg purports to explain why it considers that it is not obliged to renew licences while dismissing any concept of implicit or explicit provision for renewal unless certain circumstances occur.

Meteor notes ComReg's comments in response to its earlier submissions concerning the statement of its predecessor, the Director of Telecommunications Regulation, in ODTR Information Memorandum 01/96. In light of the new Options proposed, Meteor maintains its position that it has a legitimate expectation to the renewal of its existing GSM 900 MHz licence, subject to it demonstrating a need for same, until 2027, the end date of its 3G licence. Having regard to the following statement published by ComReg's predecessor, the ODTR in 2001 in Information Memorandum 01/96:

*"Continued availability of existing spectrum assignments in the 900 MHz and 1800 MHz bands to mobile communications licensees will be reviewed three years prior to licence expiry. Retention of such spectrum will be on a demonstrable need basis until the end date of the 3G licences."* (emphasis added)

For the doctrine of legitimate expectations to apply, three matters must be established<sup>1</sup>. First, the public authority must make a statement or adopt a position amounting to a promise or representation as to its future conduct. Secondly, the representation must be addressed or conveyed to an identifiable person or group of persons. Thirdly, the statement must create an expectation, which is reasonably entertained, that the public authority will abide by the representation to the extent that it would be unjust to permit it to resile from it. Furthermore, it is well established that the doctrine can apply not only to procedural matters but can have a substantive effect<sup>2</sup>.

Each of the three criteria is clearly met in the instant case. First, the statement must properly be viewed as an express statement of how ODTR, and subsequently ComReg would subsequently act in relation to renewal of 900 MHz and 1800 MHz licences. The statement is one which was specific in nature<sup>3</sup>. As a document intended to provide information to all interested parties in the 3G process, its contents were always intended to be conveyed to existing licensees. Furthermore, Meteor considers that it created an expectation, reasonably entertained by it, that ODTR and subsequently ComReg would abide by the representation, to the extent that it would be now unjust to permit ComReg to resile from it, Meteor had no reason to believe that ComReg would resile from its representation.

In its Response to Consultation (Document No. 09/14) ComReg effectively disregards the terms of the representation. In so doing, it refers to a number of points, which Meteor now responds to in turn.

First (at sub-paragraphs 4.1(i), (ii) and (v)), ComReg refers to the fact that both the relevant licences and parent statutory instrument statement (in Meteor's case SI 399 of 2003) explicitly refer to the expiration of the 900 MHz licences after their 15 year terms. This is, of course, irrelevant: the representation which was made was not one made in relation to the timing of the expiration of the licence but, instead, related to the future renewal of same, based on Meteor showing a demonstrable need for such spectrum.

Next, ComReg asserts (at sub-paragraph 4.1(iii)) that the statement was subject to certain disclaimers and caveats. While accepting that the document did include the text referred to by ComReg, Meteor considers that this does not detract from the status of the relevant part of the statement, referred to above, as a promise or representation as to how ODTR and subsequently ComReg would act.

At sub-paragraph 4.1(iv), ComReg refers to the fact that prospective applicants in the 3G licence competition did not seek clarification of the issue concerning expiration of the 900 MHz licence. This is hardly surprising. First, the statement was unambiguous in its terms and did not require further clarification. Furthermore, Meteor (and, presumably, others) were focussed on the 3G licence competition, not on the conditions for renewal of 2G licences.

Next, at sub-paragraph 4.1(vi), ComReg refers to the fact that the renewal of the existing licences would require the consent of the Minister for Communications, Energy and Natural Resources. While Meteor accepts this, it considers that the legitimate expectation is one which binds ComReg, irrespective of the view ultimately taken by the Minister as and when consent is sought.

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<sup>1</sup> See the judgment of the Supreme Court (Fennelly J.) in *Glencar Exploration v. Mayo County Council* [2002] 1 IR 84

<sup>2</sup> See, *inter alia*, *Abrahamson v. Law Society* [1996] 1 IR 403, *O'Leary v. Minister for Finance* [1998] 2 ILRM 321 and *Power v. Minister for Social and Family Affairs* [2007] 1 IR 143

<sup>3</sup> See, by way of comparison, the statement in *Power* which was held to give rise to a legitimate expectation.

At sub-paragraphs 4.1(vii) and (viii), ComReg refers to its statutory function under the Communications Regulation Act, 2002 and Regulation 23 of the Framework Regulations, 2003 of managing the radio frequency spectrum as it deems appropriate and of ensuring the effective management of radio frequencies for electronic communications services respectively. For the reasons set out both in its earlier response and in this response, it is Meteor's case that the renewal of its licence is in no way inconsistent with the appropriate management of the existing radio frequency spectrum.

Finally, at sub-paragraph 4.1(ix), ComReg refers to the absence of references to the ODTR's statement in public statements and disclosures. The absence of such statements does not prove an absence of an expectation reasonably entertained by Meteor that ComReg would abide by the ODTR's representation.

In the circumstances, Meteor asks ComReg to reconsider its position and to have proper regard to Meteor's legitimate expectation of renewal.

### ***(3) The Promotion of Competition***

In the original response to Consultation Document 08/57, Meteor highlighted the requirement for industry to operate within an environment that protects and indeed promotes current and future investment. In addition, Meteor also argued that the investment required to operate and develop state of the art mobile networks are substantial and continuous. Therefore, loss of access for one or more operator will have a direct impact on competition and such a dramatic impact on the mobile environment cannot simply be dismissed by ComReg.

The alternative solution, promoted by Meteor and indeed echoed in the main by other operators within the 900 MHz band, allows for four operators to compete on an even playing field. Meteor maintains that this would allow for the continuation and enhancement of competition by operators using 900 MHz spectrum and can only promote greater efficient and long-term development of the mobile sector by all players.

However, in proposing options that could result in the forced exit of an operator from the 900 MHz band, there appears to be potential bias in ComReg's proposals disadvantaging existing users. Critically weakening one or more players is not in the interest of competition and in fact would do most to undermine and threaten the continuation of competition within the sector undermining development and investment.

There is ample evidence to confirm that the Irish mobile market is a competitively functioning market.

In the near term, Meteor maintains that what the market requires is the commencement of cost effective roll-out of mobile broadband services in more rural areas. Due to lower population density per site, such areas tend to be less economical, and in some cases uneconomical to serve. It is an established fact that transmitting 3G at 900MHz offers superior coverage performance relative to 3G transmitted at 2.1GHz. As a consequence the per site business case in rural areas is improved using 3G technology at 900MHz and consequently roll-out of higher speed mobile broadband services is facilitated. Existing users of 900MHz spectrum require access to sufficient 900MHz spectrum (at least 2x10MHz) in order to rollout 3G services to rural areas in the near term and ultimately, in a time to be determined by market factors, the full migration from 2G to 3G technology. ComReg's proposals will act to constrain market development due to the uncertainty of outcomes and artificial constraints on liberalising existing spectrum use.

At the time of the July 2008 consultation no mobile operator, H3G included, had access to an economically viable solution to the provision of rural 3G coverage. We appreciate that the specific circumstances of H3G, with no access to 900MHz spectrum, may have influenced ComReg's thinking in respect of its proposals. However since that consultation H3G has secured the National Broadband Scheme contract (NBS). We understand that H3G's technical NBS solution will predominantly be provided over its 3G mobile network infrastructure. H3G has announced its intention to roll-out sites within 18 months, which we presume will mean that H3G will have achieved national coverage for its 3G network services. H3G could not achieve this economically without the subvention offered by the State through the NBS.

H3G now has a solution to the economics of cost effective 3G rural coverage while its mobile competitors do not. Consequently the question as to whether H3G may be disadvantaged in the context of access to 900MHz is no longer a material consideration. Against the backdrop of this major development since the July consultation, there is a real risk that ComReg's policy proposals will restrict the ability of other operators to effectively compete in the provision of mobile broadband services. It should be noted that H3G had a 39% share of mobile broadband subscriptions as at December 2008.

In contrast Meteor's proposal has the merits of promoting an even-playing field by affording the four existing players access to 2x5MHz of 900MHz spectrum for the rollout of 3G services to rural Ireland.

Meteor argues, therefore, that ComReg has disregarded its obligation to promote sustainable competition and efficient investment thereby ensuring that users derive the maximum benefit from services provided. Indeed the new options proposed run contrary to policy goals to develop Ireland's ICT, i.e. improving competitiveness of the national economy thereby aiding Ireland's economic recovery, in that they seriously threaten the ability of one or more operators to continue to effectively compete within the mobile market.

#### ***(4) The Implications for Consumers***

In Meteor's initial response to consultation, it was stated that serious disruption and harm would be caused to the provision of mobile services to Irish consumers if any of the original options for spectrum release were adopted.

None of the issues highlighted have been adequately addressed by the regulator in its assessment of issues raised by respondents. The very real possibility of disruption to current and legitimate business operations, and the implications this would have for subscribers, was dismissed by the argument that existing alternative spectrum assignments could be utilised, MVNO or other arrangements could act as an alternative access solution, or that unsuccessful operators could seek to sell businesses as going concerns.

Meteor is concerned, therefore, that ComReg has failed to provide adequate reasoning or analysis in respect of the potential loss of access to 900MHz spectrum by one or more existing users. At various places in Consultation Document 09/14 ComReg refers to an MVNO as a possible solution for an existing operator that fails to acquire any, or sufficient, 900MHz rights. ComReg appears to have overlooked the fact that each of the existing users also has spectrum rights at 1800MHz and 2.1GHz. ComReg defines a MVNO (Annex A, Table 3) as "a licensed mobile operator with no spectrum assignment". By definition the existing users of 900MHz are precluded from relying on MVNO access obligations in any future setting. It is also disingenuous for ComReg to suggest that existing 1800MHz assignments may be used to maintain continuity of services. Existing users have no certainty of tenure beyond 2015 which is insufficient time to recover investments made.

Therefore, Meteor does not accept that any of these proposed options should be viewed as a viable or indeed market enhancing solution to the loss of spectrum at 900 MHz.

Meteor considers that a degree of business failure can be legitimately expected within any market. However, a business failure brought about by the actions of a national regulator cannot be viewed as a reasonable outcome or in any way consistent with the regulator's duties and objectives.

By proposing the initial options, and indeed implicit within the new options under consideration, ComReg acknowledges that there is potential for an incumbent operator to lose access to 900MHz spectrum. However, ComReg goes on to state that it could an "at least equally possible outcome is that it will acquire access to 900MHz spectrum and could expand its 900MHz assignment to 2x10MHz". Meteor is very concerned that ComReg appears to be willing to take such a risk.

All existing licensees have argued for a solution to future access that both ensures current and additional operators access to the band. Operators have, therefore, balanced legitimate expectations, market and regulatory certainty, investment and consumers interests with the development and enhancement of competition: achieving this and ensuring an auction to allow for an additional operator in the band.

Meteor would also stress that the original and new options for spectrum release advanced by ComReg could not come at a worse time for operators as economic conditions continue to deteriorate. Progressing with proposals as advocated would introduce major uncertainty into the mobile industry at a time when it simply cannot be supported by industry as a whole. Such uncertainty can only impact Irish consumers negatively, both in terms of operators' ability to offer advanced services to the market as soon as possible, and in terms of enhanced access for a greater number of Irish consumers to mobile broadband services.

Meteor contends that it is not in the interests of consumers for the proposals as currently put forward by ComReg to come into play.

#### ***(5) The impact on investment***

Meteor continues to maintain that the issues highlighted in respect to regulatory uncertainty caused by such interference within the market have not been sufficiently addressed by the regulator.

In the response to consultation ComReg argues that "*MNOs that obtained the right to use 900MHz spectrum for the purpose of 2G services are likely to have made significant positive returns on their initial investment*"<sup>4</sup> This argument is advanced for all current users of spectrum at 900 MHz and does not take into account the differing market entry points of current operators.



Unlike Vodafone and O2, who have benefited as early entrants in a duopolistic market, Meteor has yet to make a positive return on a cumulative basis. It is entirely wrong for the regulator to assess all operators using 900 MHz spectrum on the same basis, as this completely disregards different market entry times and it would be disproportionate to impose a one size fits all remedy.

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<sup>4</sup> ComReg 09/14, p.27

Indeed under the new Option 1 proposed, the auction might be anticipated to have broadly similar reserve prices. Even if such a solution was uncontested, and spectrum was awarded at reserve price, this would have a disproportionate impact on Meteor which is at a different point in its investment cycle.

ComReg states that “the impact of measures on the industry needs to be considered in the light of long-run investment incentives and patterns, as is recognised for example by the 15 year duration of the licence.” Meteor struggles to reconcile ComReg’s statement with its actual proposals. Meteor is in the eighth year of its licence term. Irrespective of one’s view on licence expiry, holding an auction in respect of the spectrum currently relied upon by Meteor at this early stage in its investment cycle is unfair and prejudicial. ✂

Whilst it is appreciated that decisions need to be taken in respect of the 900MHz spectrum used by Vodafone and O2 in advance of 2011, it cannot be accepted that Meteor must be subject to uncertainty and risk at this stage in its development.

In this regard, Meteor would reference Policy Direction on Industry Sustainability,<sup>5</sup> whereby ComReg is directed “to ensure that in making regulatory decisions in relation to the electronic communications market it takes account of the state of industry and in particular the industry’s position in the business cycle and the impact of such decisions on the sustainability of the business of undertakings affected”.

Meteor would argue that in proposing spectrum release based on the current options, and in particular based on Option 1, ComReg has failed to take cognisance of this direction.

If the issue is about excess returns made by earlier entrants then a more proportionate solution is required, linked in some way to actual returns.

As a further issue to be discussed, Meteor argued in its initial response that if there was no right to licence renewal at the end of a licence term, there will be a strong disincentive for the licence holder to make further investment after the initial outlay invested in network and product development. This point has simply not been acknowledged as a legitimate concern by the regulator, however, this point is very significant for Meteor, as it is currently only 8 years into a 15 year long licence.

## **(6) The Efficient Use and Management of Radio Frequencies**

ComReg is under an obligation to ensure the effective management of radio frequencies for electronic communications services and to ensure that the allocation and assignment of such radio frequencies is based on objective, transparent, non-discriminatory and proportionate criteria.

Regulation 23 of the Framework Regulations<sup>6</sup> provides:

“(1) The Regulator shall, subject to any directions issued by the Minister pursuant to section 13 of the Act of 2002, ensure the effective management of radio frequencies for electronic communications services in accordance with section 12 of the Act of 2002 and

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<sup>5</sup> Direction by the Minister for Communications, Marine and Natural Resources to the Commission for Communications Regulation under s.13 of the Communications Regulation Act 2002

<sup>6</sup> European Communities (Electronic Communications Networks and Services)(Framework) Regulations 2003 (SI 307 of 2003)

*ensure that the allocation and assignment of such radio frequencies is based on objective, transparent, non-discriminatory and proportionate criteria.*

*(2) The Regulator shall, having regard to its objectives under section 12 of the Act of 2002 and its functions under these Regulations and the Specific Regulations, promote the harmonisation of use of radio frequencies across the European Community, consistent with the need to ensure effective and efficient use thereof in accordance with Decision No. 676/2002/EC<sup>7</sup> of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community.”*

Similarly, under s.12 of the Communications Regulation Act, 2002, ComReg’s objectives in exercising its functions (which include the management of the radio frequency spectrum), include (under s.12(1)(b)):

*“...to ensure the efficient management and use of the radio frequency spectrum... in accordance with a direction under section 13”.*

Directions under s.13 include an obligation on ComReg to take account of the interests of all users of the radio frequency spectrum.

With reference to the above, therefore, Meteor argues that in dismissing options proposed by current users of the 900 MHz band and in proposing new options based on an auction format, ComReg has disregarded its obligations.

The ability to migrate to 3G / LTE technology, which arguably is more efficient in the long run, should not be artificially constrained by a rigid approach to licensing which links liberalisation to future licence assignment rather than allowing for its application under an amended assignment. Technological evolution is driving the pace and delivery of advanced applications and services. Mobile operators cannot and should not be constrained by the regulator from the ability to migrate their services to the most technically efficient possible. Technology is evolving and so should the legislative framework.

### ***Test and Trial Results***

In December 2008 Meteor presented Test and Trial results to ComReg relating to the impact of re-farming in the 900 MHz band. The test was carried out in a specific geographical location (Waterford City and surrounding rural areas) and was aimed to evaluate the impact on Meteor’s GSM network of altering current spectrum allocation to accommodate a 5MHz channel in the rural areas. The aim being to assess whether it is possible to accommodate the delivery of both 2G and 3G services within a spectrum assignment of 2x7.2 MHz and focus on the delivery of enhanced services through 3G in a rural environment.

As ComReg is aware, the result of the trial proved that reducing GSM bandwidth from 7.2 MHz down to below 5 MHz would have a detrimental network impact, increasing the percentage of dropped calls, reducing call setup success rates, data download rates and data session setups. The impact on the network was felt equally across both rural and city environments with the conclusion that an additional spectrum assignment (particularly to be utilised in the city) is the only means by which Meteor could service current GSM requirements whilst at the same time facilitating the delivery of rural broadband services.

In addition, to the Meteor test and trial results other industry trials, most noticeably that conducted by Vodafone and presented to ComReg in March 2009<sup>7</sup>, (and subsequently to wider industry), outline the key reasoning behind the requirement to utilise 900 MHz spectrum for the delivery of 3G services. The report highlights the advantages to industry

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<sup>7</sup> UMTS 900 – Trial Update, Vodafone Ireland Ltd. presentation to ComReg, 20<sup>th</sup> March 2009

and consumers of so doing, focusing on the benefits that could be realised for the overall economy from services provided: most notably the development of rural broadband.

The trial results also echo that presented by Meteor, in that they clearly demonstrate that re-farming from the current allocation of 2x7.2 MHz is not possible and that 2x7.2 MHz cannot support GSM and UMTS in even the most remote areas. The necessity to have an increased spectrum assignment to facilitate the delivery of current GSM traffic whilst at the same time delivering broadband to rural areas and the prevention of a digital divide is, therefore, clearly outlined.

As endorsement of the above argument Meteor would reference the recent decision taken by the telecommunications regulator in Finland supporting the award of additional frequencies in the 1800 MHz band to national operators to allow for the development of fourth generation (LTE) mobile networks<sup>8</sup>.

The decision will allow for the development of fourth generation networks in a situation where 3G networks are still the dominant technology and will ensure the progression from one technology to another. A benefit for operators offering the service is that networks can be provided with a substantially wider coverage and at a lower cost.

Championing the decision, Finland's Minister for Communication stated that:

*"The decision will help to make fast wireless networks more widely available in all parts of Finland and they will now also become accessible to people living outside built-up areas"*

In adopting this approach, Finland recognises that regulatory intervention can be applied to ease the transition from one technology to another and that an extension of the spectrum assignments will be required to allow a progression to a more enhanced technology.

It is, therefore, entirely reasonable for Meteor to argue that such an approach should also be considered by the Irish regulator in respect to current and future assignment and use of spectrum within the 900 MHz band.

### ***(7) Best Practice as Established Through International Precedents***

In Meteor's original submission, we queried the examples provided by ComReg to justify regulatory intervention in the manner proposed and provided numerous examples of regulatory action which by and large involved the existing licensees retaining all or a substantial portion of the 900 MHz bandwidth originally licensed to them.

At no point did Meteor argue that any decision taken by another Member State in the European Union, or internationally, could be directly applicable to the Irish scenario. What was queried, however, was the justification that ComReg itself gave to its proposed action through comparisons with decisions in other jurisdictions. Examples of regulatory intervention were provided highlighting where authorities had applied extensions to existing licences, where additional spectrum had been awarded through administrative assignment or where an industry negotiated settlement to future access and use was adopted.

Since publication of ComReg's initial Consultation Document, a number of additional determinations have been made by regulatory authorities within the EU that would see a more flexible approach to the issue of licence renewal and the delivery of services on a liberalised basis.

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<sup>8</sup> *Cellular News, 24 April 2009*

In the section of the response focusing on efficient use and management of radio frequencies, Meteor has highlighted the facilitatory solution advanced in Finland where efficiency of use, thereby enabling the delivery of enhanced services, was cited as the reason for the award of additional frequencies to current operators.

As further justification for the proposal advanced by Meteor to allow for migration of services it is also important to note the recent decision by the Swedish regulator PTS, in Decision 1 (17) of 13 March 2009<sup>9</sup>.

The determination made by PTS is a justifiable benchmark in that it allows for an extension of the term of licences to operators currently using 900 MHz spectrum. Such licences have been renewed on a liberalised basis, allowing for the entry into the market of a fifth operator within the band, and for a technical realignment of spectrum assignments.

Meteor would like to reference this determination as, in its adoption, the Swedish regulator has given legitimacy to a number of the arguments advanced by Meteor in its assessment of the options currently under national scrutiny.

The Swedish regulator has explicitly stated that arguments in respect to legitimate expectations, the promotion of long term investment, the requirement for operators to expect a reasonable rate of return, the promotion of competition, and the fact that companies would be adversely affected by substantial operational and financial problems if licences were not extended, all contributed to the its determination that current licences should be extended, amended and made technology neutral.

The determination was also heralded by the national regulatory authority as good for consumers, as it ensures continuation of service, yet at same time allows for its development and enhancement (i.e. ensuring that operators can implement UMTS900 and LTE) as service and technology neutrality is respected.

In highlighting the above, Meteor is not suggesting that this exact solution should be applied in the case of Ireland. However, we are drawing attention to the fact that other regulatory authorities have accepted as legitimate all of the arguments that Meteor's has advanced as to why an auction for future rights to currently assigned spectrum for GSM use is not appropriate in the current environment and in fact would be highly prejudicial to the position of Meteor. In addition, where regulatory authorities have made determinations on future access rights to spectrum currently assigned to GSM operators, by and large all have involved the existing licensees retaining all or a substantial portion of the 900 MHz bandwidth originally licensed to them.

Meteor would contend, therefore, that subject to Policy Direction on Consistency with Other Member States<sup>10</sup> that the Commission shall *"ensure that where market circumstances are equivalent, the regulatory obligations imposed on undertakings in the electronic communications market in Ireland should be equivalent to those imposed on undertakings in equivalent positions in other Member States of the European Community"*.

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<sup>9</sup> Licence for the use of radio transmitters under the Electronic Communications Act (2003:389); issue of extension, amendment of licence conditions, inter alia redistribution and further assignment of frequencies together with consent for partial transfer, 13 March 2009

<sup>10</sup> Direction by the Minister for Communications, Marine and Natural Resources to the Commission for Communications Regulation under s.13 of the Communications Regulation Act 2002

Whilst Meteor would accept that circumstances do differ across all Member States, Meteor would also contend that no other regulatory authority has sought to solve the issue of future access rights through such a damaging regulatory intervention.

### **(8) The Economic rationale / basis for proposals**

Meteor has reviewed ComReg's response in respect of comments on the welfare analysis. Meteor remains of the view that the economic modelling is simplistic, with too many simplifying assumptions, and to a large extent self-fulfilling. As ComReg itself states "*the welfare analysis only demonstrates that any option that induces entry will have a positive effect*"<sup>11</sup>.

In its response to consultation document ComReg states that it "thinks that it is important to point out that the welfare model shows that we are unlikely to be even approaching this saturation point in the Irish context."<sup>12</sup>

This position appears, however, to be at odds with the views of ComReg's Chairman where in a recent interview<sup>13</sup> he stated that "*Ireland is largely a mature market. Meteor for example, has grown to take 20pc of the market-place from a very low base. The market is also becoming increasingly competitive, and it's pretty unique to see a small country with four full network operators and at least two other mobile virtual network operators.*"

The question that the modelling does not address is whether the package of measures proposed represents an appropriate balance of ComReg's objectives.

ComReg states that "*the key role of NRAs in relation to spectrum is to ensure that competition is not restricted in advance*"<sup>14</sup>. This may well be the case in respect of assigning spectrum in a nascent market for new services. However, the mobile market is not a nascent market. There is no evidence to suggest that the current market structure does not facilitate market entry through commercially negotiated MVNO arrangements. It seems clear that in order to determine if regulatory intervention to promote entry is required there is a need to form a view on current level of competition. ComReg's thinking in respect of 900MHz appears to be unduly influenced by an objective of facilitating market entry even if this is at the expense of sacrificing the competitively functioning market that exists. ComReg's thinking is at odds with its duty to promote efficient use of spectrum, is at odds with its duty to promote investment, and is at odds with the promotion of positive consumer outcomes. Meteor urges ComReg to take a more measured and balanced consideration for the achievement of its objectives and duties.

Meteor is surprised that ComReg does not consider that a cost-benefit analysis (Regulatory Impact Assessment) of its proposals is required, particularly given the significance of the issues at hand. A cost-benefit analysis would be an important exercise to ensure an appropriate balance has been reached in respect of ComReg's objectives and duties. ComReg argues that licence renewal is not a legal possibility and thus a cost-benefit analysis is not necessary. This appears to suggest that ComReg has no discretion. While we disagree with ComReg's view that its hands are tied legally, even if one was to accept that position, ComReg is by the very nature of this consultation discussing how best to exercise its discretion and the merits of alternative options.

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<sup>11</sup> ComReg 09/14, p. 29

<sup>12</sup> Ibid. p.29

<sup>13</sup> "Bundles of Opportunity", *Irish Telecommunications and Internet Federation Guide to Telecoms Investment, 2009*,

<sup>14</sup> ComReg 09/14, p.31

At paragraph 1.5 of ComReg's Guideline on Regulatory Impact Assessment<sup>15</sup> it is stated "ComReg will conduct an RIA in any process that may result in the imposition of a regulatory obligation or the amendment of an existing regulatory obligation to a significant degree, or which may otherwise significantly impact on any relevant market or on any stakeholders or consumers."

Meteor considers that the current circumstances propose significant changes and consequently including consideration of Policy Direction No. 5 on Regulatory Impact Assessment<sup>16</sup>, it is incumbent upon ComReg to inform its decision by undertaking a full cost benefit analysis.

## **(9) The Wider Policy Context**

### **1800 MHz**

Although ComReg refers to the possibility of providing for an auction in the 1800 MHz band at a later stage, Meteor would argue that the current Consultation Document again falls short of ComReg's stated objective of providing for efficiency in the management and use of the radio frequency spectrum.

By proposing to park consideration of future 1800 MHz licensing, the regulator again seriously undermines an operator's long-term decision making ability, which can only have a negative impact on the development of an individual operator's network and subsequent delivery of services.

The uncertainty that such a decision injects into the regulatory framework governing spectrum access means that the current solution proposed cannot be viewed as a viable alternative. Operators cannot be expected to make the type of investment decisions that the regulator is proposing in auctioning 900 MHz spectrum in the near term when no oversight of what will happen with the 1800 MHz licence is provided.

Again Meteor would stress that a coherent and strategic approach to the management of mobile spectrum is required to enable Irish consumers to benefit from technological developments as soon as possible. Meteor's alternative approach to future licensing is cognisant of this need and proposes that the assignment currently utilised by Meteor should be renewed or restated, in conjunction with the 900 MHz assignment.

In refusing to address the issue of future rights to 1800 MHz spectrum it is not a sufficient response for the regulator to argue that there is little evidence of demand. As demonstrated in the position adopted by the Finish regulator with respect to the granting of additional frequencies to operators to allow for fourth generation migration, this is simply not the case.

### **The Digital Dividend**

With respect to the Digital Dividend, Meteor had previously argued that a serious flaw in the regulator's options is that access mechanisms for individual spectrum bands are being proposed in isolation. In the context of a radical review of access to the 900 MHz Band ComReg should, therefore, have sought to at least comment on the potential use and value for the delivery of 3G broadband that could be derived from such spectrum.

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<sup>15</sup> ComReg 07/56a

<sup>16</sup> Direction by the Minister for Communications, Marine and Natural Resources to the Commission for Communications Regulation under s.13 of the Communications Regulation Act 2002

However, the current consultation dismisses these arguments stating that as it is unclear what spectrum will be made available and for what users, and that as decisions regarding the same will have to be taken following detailed public consultation, it would be inappropriate for ComReg to make any judgement in advance.

It should be noted that Meteor was not and is not arguing that a determination on access to potential digital dividend spectrum should be made at this time. The opportunities that could arise from access to that spectrum, however, renders current decision making on new 15 year licences at 900 MHz all the more questionable. What the regulator is seeking to do is to force operators to make long-term and far reaching business decisions, potentially at huge cost, whilst not in full cognisance of all market determinants.

As a parallel consultation is currently being run by the regulator address the question of reform of spectrum use in the UHF band<sup>17</sup>, Meteor would contend that a decision with respect to future licensing at 900 and 1800 MHz should form part of this wider review.

As ComReg is aware, digital divided spectrum is ideal spectrum to be used for the delivery of mobile broadband services. Indeed the GSM Association<sup>18</sup> has argued that if just 25%, or around 100MHz, of the spectrum currently used by analogue TV (470 - 862 MHz) was re-allocated to mobile communications, the mobile industry could dramatically speed up the rollout of broadband communications and increase coverage.

The spectrum that could become available is ideal for the delivery of mobile broadband applications as its characteristics would allow for the delivery of rural broadband in a more economically efficient manner than that delivered at 2.1 GHz. The result, we would argue, is the delivery of potentially cheaper broadband services to a larger number of customers.

Meteor would argue that forcing through a decision governing access to 900 MHz spectrum at this time is not, therefore, conducive to onward investment and undermines ComReg's statutory duty of good governance.

### ***Secondary Trading***

In Meteor's response to Consultation Document 08/57, it was argued that secondary trading rights could act as an important dynamic within the mobile market and that the adoption of a trading regime could resolve many of the issues that ComReg wishes to address through compulsory spectrum release and re-farming options.

This argument was, however, dismissed by the regulator. ComReg maintains that the introduction of a regime for spectrum trading is a matter for policy makers (somehow divorcing itself from the debate on the implications for market development if it is adopted) and that the advantages of trading have not necessarily been demonstrated to date. In defence of this argument, ComReg cites one industry report.

Again ComReg states that it is incumbent on it to outline how it will deal with expiring licences under the current regime and circumstances, in advance of expiry dates.

Meteor would stress, however, that as spectrum trading has been cited by a 2008 Government Report<sup>19</sup> as a "core principle" to be enshrined in future legislation, it is

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<sup>17</sup> *ComReg 09/15*

<sup>18</sup> *"Digital Dividend For Mobile: Bringing Broadband to All", GSMA 2009*

<sup>19</sup> *Department of Communications, Energy and Natural Resources : Report of Working Group on Spectrum Policy, September 2008*

imperative for the regulator to refrain from making decisions, potentially hard fastening access at 900 MHz for the next 15 years, outside a consideration of the same.

## ***D. ASSESSMENT OF OPTIONS***

In the preceding sections Meteor has set out why all options for release of spectrum proposed by ComReg cannot be supported, demonstrating why the basis for reform proposed would fundamentally undermine a competitively functioning market.

It is, therefore, not possible for Meteor to support either of the two options as proposed.

### ***Option One – Single Auction***

Under this Option, ComReg proposes to make the whole of the 900 MHz band available in a single auction. Each applicant to the auction would be limited to a maximum of 2x10 MHz of spectrum in the band, and the auction could see a realignment of existing licences frequency assignments if users were successful in gaining future access rights.

Meteor would argue that this option for release of spectrum is highly prejudicial to the company and therefore is rejected. Meteor would particularly reference the arguments outlined in the previous sections detailing the impact that such an option would have on investment. It is wholly unacceptable that Meteor is subjected to uncertainty and risk at this stage in its development and Meteor should not be required to re-bid for spectrum 8 years into a 15 year long licence.

Option 1 is, therefore, neither proportionate, objectively justified nor reasonable and is rejected by Meteor as a mechanism for future spectrum access rights.

### ***Option 2 - Multi-phased approach***

Under this proposal a phased approach to both auctioning future access rights and liberalisation of the 900 MHz band is advanced, with a first auction to be held in 2009 and a final auction, the possibility of an auction for spectrum currently assigned to Vodafone and O2 to be held prior to May 2011, and a final auction, which would include future access rights to spectrum currently assigned to Meteor, to be held prior to 17 June 2015.

Meteor would argue that this option for release of spectrum is highly prejudicial to the company and is, therefore, rejected.

In a direct comparison to Option 1, Meteor would acknowledge that although this option allows for co-termination of 2G licences, therefore, demonstrating that discretion in licence duration can be exercised by the regulator under current legislation, all of this is proposed at the expense of market evolution (i.e. the timing of re-farming for individual operators will be staggered).

Option 2 is, therefore, neither proportionate, objectively justified nor reasonable and is rejected by Meteor as a mechanism for future spectrum access rights.

## **ADDITIONAL ISSUES**

### ***Auction Design***

Consultation Document 09/14 states that the regulator “will, in due course, set out proposals for the competition format to be used for the assignment of frequencies in the 900MHz band”<sup>20</sup>.

As outlined in Meteor’s response to Consultation Document 08/57, Meteor would submit that it would be a violation of due process for ComReg to move forward with any auction process unless the essential details had been fully and thoroughly consulted with key stakeholders. In this respect, Meteor outlined a number of reasons why it will be extremely difficult, if not impossible, to design an auction process in a way that ensures a non-discriminatory, objective and proportionate result. A number of reasons were provided as justification of this assertion and Meteor would again reference this position (see in particular Meteor’s response to Question 4 of ComReg 08/57).

It is imperative, therefore, that in the event that a decision is taken to progress with spectrum release in an auction format, that further industry consultation is provided.

### ***Memorandum of Understanding on Re-alignment***

Under both options proposed for future spectrum release, ComReg asserts that following the auction, it is likely that realignment of the existing licensed frequency assignments will be necessary to facilitate use of the new assignments arising from the competition.

ComReg goes on to propose that as a precondition of entry to the auction, all existing 900MHz licence holders, including Meteor, would be required to enter into a Memorandum of Understanding, mandating them to agree to co-operate with other licensees and ComReg on a re-alignment of their current licensed frequency assignments to facilitate use of the new assignments arising from the competition.

Under Regulation 6 of SI 339 of 2003, Meteor’s licence can only be amended either on its request or, alternatively, where objectively justifiable and in a proportionate manner and/or where in the interest of the efficient and orderly use of apparatus for wireless telegraphy or the radio frequency spectrum. Any amendment must be in accordance with the Authorisation Regulations, 2003<sup>21</sup>, Regulation 15 of which similarly provides that any amendment may only be made in objectively justifiable cases and in a proportionate manner and that ComReg must seek and have regard to representations.

Meteor is concerned that any proposed Memorandum of Understanding may well, in substance, result in the amendment of its licence. In such circumstances, any such obligation must comply with Meteor’s entitlements on an amendment of its licence

### ***Costs***

As a further concern in respect to the proposals for re-alignment, Meteor would note that no consideration has been given to the issue of the cost involved in re-tuning spectrum to an alternative assignment. Under both scenarios proposed, costs could be incurred by one operator in moving to alternative spectrum assignment, whilst another only benefits from the release. Such factors should be taken into consideration when determining access fees.

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<sup>20</sup> ComReg 09/14, p. 51

<sup>21</sup> European Communities (Electronic Communications Networks and Services)(Authorisation) Regulations 2003 (SI No.306 of 2003)

## **E. RESPONSES TO SPECIFIC QUESTIONS RAISED BY COMREG**

### **MVNO Consideration**

#### **Question 1 - MVNO and the competitive process:**

- a. What would be the impact of MVNOs on competition and investment?**
  - b. What in your opinion would be the likely benefits and costs of ComReg inviting MVNO commitments as part of a future 900 MHz spectrum licence competition?**
- In support of your response please refer to current and likely future market conditions and developments**

Before responding to the specific queries which have been raised by ComReg, Meteor must emphasise that what is being proposed by ComReg in relation to MVNO's is manifestly outside the scope of ComReg's powers. In its current consultation document, ComReg characterises the objections of Meteor and others as being made "on the narrow basis of the Access Directive". The suggestion that a fundamental concern of Meteor as to the vires of a statutory authority is in some way a technical or unmeritorious concern is truly remarkable.

As ComReg is well aware, under Regulation 10 of the Authorisation Regulations, ComReg is limited in the type of conditions which it is entitled to attach to a licence, to those which are listed in Part B of the Schedule to the Regulations.

These do not include an MVNO obligation, which is an access obligation which can only be imposed, under Article 8(3) of Directive 2002/19/EC ("the Access Directive"), implemented by the Access Regulations 2003<sup>22</sup>, on operators who have been designated as having significant market power ("SMP") on a specific market as a result of a market analysis carried out in accordance with Article 16 of Directive 2002/21/EC ("the Framework Directive").

In its comments in the SG Greffe<sup>23</sup> notification, the Commission emphasised that regulators such as ComReg have no general ability to impose obligations on non-SMP operators, stating:

*"Article 8(3) of the Access Directive, in line with the spirit of the Framework, states that the general rule for imposing any obligation is to conduct a market analysis and SMP assessment. This is also underpinned by Recital 27 of the Framework Directive which clearly states that "it is essential that ex ante regulatory obligations should only be imposed where there is not effective competition, i.e. in markets where there are one or more undertakings with significant market power, and where national and Community competition law remedies are not sufficient to address the problem." Therefore the appropriate way to impose an access obligation as defined by UKE in the notified draft measure is to examine the market for mobile access and call origination and – if results of market analysis show that it is not competitive – impose appropriate remedies, including an access obligation."*

ComReg appears to argue that it the MVNO obligation proposed by it falls within the scope of Part B of the Schedule to the Authorisation Regulations, which includes:

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<sup>22</sup> European Communities (Electronic Communications Networks and Services)(Access) Regulations 2003 (SI No.305 of 2003). See Regulation 9 thereof.

<sup>23</sup> (2007) C/203442

*“Any commitments which the undertaking obtaining the usage right has made in the course of a competitive or comparative selection procedure.”*

It appears that ComReg’s view is that it is entitled to impose an obligation on all undertakings who engage in a competitive or comparative selection procedure and thereafter claim that such an obligation is a commitment made in the course of such a procedure.

This clearly is not what is intended by the Authorisation Regulations which, in this regard, mirror the wording used in the Schedule to the Authorisation Directive. ComReg’s interpretation would result in a position where the general principle restricting the imposition of MVNO obligations could be overridden by it requiring commitments from all undertakings entering into such a procedure. In particular, this would be inconsistent with the Framework Directive, as is clear from Article 27 thereof, referred to in SG Greffe.

It is clear that what the Authorisation Regulations actually intend is that where a party makes a commitment in order to improve its chances of success in a competitive or comparative procedure, ComReg should be entitled to ensure that that party follows through on its commitments. A leading text<sup>24</sup> describes such commitments in the following terms:

*“Conditions may be attached to individual authorisations in order to specify the commitments that undertakings have made during the procedure in the course of which rights of use were granted. This kind of commitment is usual in procedures where candidates take part in a competitive procedure to provide a service. In these circumstances undertakings are ready to accept additional obligations in the hope of being selected in preference to the other candidates. The competitive character of the procedure thus places authorities in a situation where they can impose, indirectly, supplemental obligations on undertakings.”*

What is proposed in the current case is not a commitment made in a selection procedure but, in substance, is a condition of a licence imposed by ComReg. Accordingly, it is not permitted under Part B of the Schedule to the Authorisation Regulations.

If what ComReg contends is correct, it appears that it considers itself entitled to impose other far reaching obligations on licence holders. Not only is this not contemplated by the current regulatory framework, it also contradicts the purpose of the new regulatory framework, which was to impose access obligations only on those licence holders possessing significant market power (“SMP”) (save in exceptional circumstances which are not present here). At the same time, the concept of SMP was radically altered so as to align it with the concept of dominance in competition law, with the effect that access obligations could only be imposed where an operator was found to be in a position equivalent to dominance (which Meteor clearly is not).

In its first consultation, ComReg stated that it had in the past included MVNO access conditions in licences awarded with larger spectrum assignment. This statement disregards both the current regulatory framework described above and the different nature of the process which led to the award of the 3G licences to that now being proposed by ComReg. Specifically, in the 3G licencing process, applicants for one of four licences (“the “A” Licence”) were invited to give a voluntary binding commitment in relation to the provision of access to MVNO’s, in return for points in the evaluation process. The A Licence had a more favourable licence fee for applicants. In contrast, ComReg now seeks to impose the MVNO condition on all applicants

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<sup>24</sup> Nihoul & Rodford, *EU Electronic Communications Law, 2004*, at page 150

A clear direction was also provided to ComReg through the Policy Direction on Regulation only where necessary<sup>25</sup>. In seeking to impose an MVNO condition on applicants Meteor would argue that ComReg has failed in its obligation to “*examine whether the objectives of such regulatory obligations would be better achieved by forbearance from imposition of such obligations and reliance instead on market forces*”.

Accordingly, Meteor considers that ComReg does not have the competence to impose MVNO access conditions in the manner proposed by it and now responds to Question 1 strictly without prejudice to this fundamental contention.

In the first consultation ComReg proposed to include a MVNO licence obligation in future 900MHz spectrum licences. In Meteor’s response to ComReg 08/57 it was highlighted that:

- ComReg had failed to objectively justify its proposal. Indeed no real justification was offered by ComReg
- Access obligations can only be imposed following an objective and proportionate assessment in accordance with the EU regulatory framework, as detailed above.

Meteor is surprised, therefore, that ComReg continues to persist in pursuing an unsubstantiated policy goal in the context of spectrum licensing. The nature of the MVNO consultation questions posed in the current consultation, focussing as they do on detailed matters of implementation, is highly suggestive that ComReg has already reached a conclusion on the principle of MVNO access obligations, which is at variance with its powers.

ComReg invites views on the impact of MVNOs on competition and investment. Answers to this question will at best be speculative. MVNOs are already present in the Irish mobile communications market through commercial negotiation. It is to be expected that MVNOs will continue to be a feature of the market in coming years. ComReg indicates, however, that it is concerned about possible implications for the competitive process in the context of converged services and bundled offers. Meteor would agree that MVNOs are likely to have a role to play in the evolution of competitive communications markets. What that role will be will depend on a number of factors not least the evolutionary path the market follows in respect of converged services.

As highlighted in the recent ERG paper<sup>26</sup> on convergence there are a range of MVNO models and a range of ways in which embryonic fixed mobile convergence may evolve. The ERG paper is necessarily preliminary in nature and considers a range of issues, including but not limited to MVNO access that may be relevant to convergence. In respect of access to mobile networks, the ERG paper notes, “fixed operators have only access to commercial wholesale offers from mobile operators, which they **could in principle** refuse to provide.” [emphasis added] Whether this principled concern may actually be a practical concern needs to be assessed on a national basis. ComReg has not undertaken any such analysis.

In the absence of any evidence that the wholesale mobile market is ‘broken’ it is impossible to comment further on potential regulatory remedies. There is simply no objective justification for ComReg’s apparent pursuit of MVNO access obligations as a policy goal.

If, as is suggested in the consultation document ComReg is ‘concerned’ to consider whether current market and regulatory structures are sufficient to facilitate convergence then the

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<sup>25</sup> *Direction by the Minister for Communications, Marine and Natural Resources to the Commission for Communications Regulation under s.13 of the Communications Regulation Act 2002*

<sup>26</sup> *Report on fixed-mobile convergence: implications on competition and regulatory aspects ERG(09)06*

appropriate course of action is to undertake a strategic review in that respect. MVNO access is one of a number of factors to consider and ComReg should not adopt a piecemeal approach.

Indeed it is questionable whether ComReg's apparent objective in respect of MVNO access will be met by its current proposal. The proposal is specific to 900MHz spectrum rights. Mobile operators provide mobile services using 2G and 3G technology using spectrum from a combination of spectrum rights. ComReg's piecemeal approach to mobile spectrum rights means that existing 1800MHz and 2.1GHz rights will not be subject to MVNO access obligations (with the exception of H3G). Consequently MVNO access would be limited to transmissions at 900MHz under its current proposal. This in turn gives rise to commercial and technical considerations that ComReg has failed to consider. Is it technically possible to limit MVNO access to 900MHz transmissions on a mobile network? If yes, MVNO access to 3G services would be at best, assuming access to sufficient spectrum, limited to rural areas on the networks of existing users of 900MHz for a number of years. If no, ComReg would effectively be amending and fundamentally altering existing rights of use for 1800MHz and 2.1GHz spectrum in a wholly unjustified manner.

Perhaps in recognition that it has not acted in accordance with the EU framework ComReg now invites views on whether MVNO commitments should be invited as part of a future 900MHz spectrum licence competition. In other words ComReg will seek voluntary commitments. It would be disingenuous to suggest that a commitment may be voluntary if, in fact, it forms part of a pre-qualification process. ComReg is aware that existing users of 900MHz spectrum are reliant upon it for the provision of nationwide GSM services. Consequently such operators would have little option but to seek to pre-qualify for 900MHz competitions. It is an abuse of process for ComReg to seek to coerce operators to 'voluntarily' accept MVNO access obligations in the absence of any market analysis or objective justification.

**Question 2. MVNO licence commitments:**

- a. What should be the minimum services encompassed by MVNO licence commitments?***
- b. Should any services be excluded or should this be left solely to normal commercial agreement?***
- c. How might MVNO licence commitments be enforced? What criteria, processes and timelines might apply?***

Please refer to response 1, above. Meteor rejects the notion that MVNO access obligations should be associated with future 900MHz awards. Furthermore in the absence of a defined problem it is impossible to design an appropriate and proportionate solution.

**Question 3. MVNO Wholesale Pricing:**

- a. Should wholesale pricing considerations form part of any discussion on MVNO commitments?**
- b. What factors should form the basis of any wholesale pricing structure in the event that MVNO licence commitments are included in any future 900 MHz spectrum licences? Please support your response with the reasoning for considering any such factors.**

As highlighted in Meteor's response to both Question 1 and Question 2 above, given the nascent nature of market development, and in absence of evidence of market failure, ComReg should not go down route of prescriptive obligations.

**Question 4 MVNO Technical Issues**

- a. Are there any technical or practical constraints to the inclusion of MVNO commitments within future 900 MHz licences in a liberalised setting? Please provide reasons for your view.**

Please refer to response given to Question 1 above. ComReg's piecemeal proposal to impose MVNO access on 900MHz transmissions will give rise to practical constraints in terms of the scale of reach of mandated MVNO services.

**Question 5**

**Do you believe that the Options for release of spectrum in the 900 MGH set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg?**

**If yes, please provide detailed supporting argument with your answer**

As outlined in both Meteor's response to Consultation 08/57 and again above, no further consideration of the options proposed is required. Meteor rejects all proposals and would argue that they are neither appropriate, reasonable nor proportionate.

**Question 6**

**Which of the two options described above for release of spectrum in the 900 MHz band would you prefer? Please provide supporting arguments with your answer.**

As Meteor rejects both Options proposed for release of spectrum in the 900MHz Band, articulating a preference for one option is not appropriate.

### **Question 7**

***What variations of the two Options should ComReg consider in finalising the process? Again please provide supporting arguments with your answer and suggest a detailed alternative if applicable.***

Meteor cannot support either of the two options proposed by the regulator for future spectrum assignment within the 900 MHz band. In light of the additional justifications provided within this response it is appropriate, therefore, to ask the regulator to revisit the Option submitted in Meteor's Response to Consultation Document 08/57.

At present there are three spectrum assignments of 2x7.2 MHz to three operators (Vodafone, O2 and Meteor,). There is also 2x13.4 MHz of unassigned spectrum in the band (including the existing GSM guard bands). Meteor's proposal is as follows:

- 2x10 MHz will be assigned to all existing 900 MHz licensees by expanding each operator's holding so that each has a contiguous 2x10 MHz block that includes as far as possible their current spectrum assignment. This could mean the following direct assignment of blocks: Meteor -930-940 / 885-895MHz, Vodafone 940-950/895-905 MHz; O2 950-960/905-915 MHz. The remaining 2x5 MHz of currently unassigned spectrum could be administratively assigned or auctioned to a new entrant to the band, at the earliest opportunity considered appropriate by ComReg.
- As demand for GSM services gradually declines, the requirement to maintain both spectrum for GSM services and 3G services diminishes. Once this point is reached, over the next several years, operators could agree to a realignment of all spectrum allocations, each with a 5MHz assignment allocation. This would provide ComReg with an opportunity to re-assign the remaining spectrum vacated by the current licensees.

### **New Options**

#### **Question 8**

***Are there any other new Options that ComReg should consider? Please provide supporting arguments with your answer.***

Meteor remains convinced that the option as originally proposed by Meteor in its response to ComReg Consultation Document 08/57 and outlined above, remains the most appropriate in the given circumstances.

Whilst variations on the above solutions were proposed by other respondents to ComReg Consultation Document 08/57, Meteor would maintain that all are inferior to that proposed by Meteor.

#### **Question 9**

***In the above Options, do you agree with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months?***

The proposals put forward by ComReg to allow for a re-alignment of frequency assignments are highly complex, and can only be achieved through cooperation between all impacted

operators. Meteor does not believe that it is appropriate in the current circumstances to mandate and limit this process through a time-period set by the regulator.

In addition, Meteor would again highlight the points made previously on the cost implications of such a move and how they may vary from operator to operator. If either Option for spectrum release is adopted by the regulator such variations would need to be reflected in any access fees applied.

#### **Question 10**

***Under Option 2, and in the event that the existing 900 MHz licensees wish to continue use of their frequency assignments beyond the expiry dates of their current licences, do you agree with the principle ComReg has outlined for use when setting an increased spectrum fees levy appropriate for those extended licences.***

ComReg briefly mentions the principles it proposes to apply at section 5.2.3 of the consultation when setting an increased spectrum fees levy for extended licences. Meteor has previously set out its views regarding spectrum fees in its response to ComReg 08/57 (see in particular Meteor's response to question 3 in our previous submission). Meteor remains of the view, for the reasons previously expressed, that the fees issue is better addressed once the transition to full use of 3G at 900MHz has been concluded.

Meteor does not agree that there is sufficient justification to increase current annual fees for access to 900MHz in respect of existing licensees.

#### **Question 11**

***It is ComReg's intention to include conditions in any new 900 MHz licences issued.***

- a. Should the conditions be limited to existing services such as voice and text or be broadened to include other services such as broadband?***
- b. What kind of conditions (e.g. coverage, Roll-Out, Quality of Service, etc.) should be included?***
- c. At what level should these conditions be set?***

In response to ComReg 08/57 Meteor offered views on licence conditions. ComReg has not addressed these previously submitted views in its response document. As such Meteor would refer ComReg to the section entitled, 'Additional Issue: Coverage and Quality of Service Requirements' at page 35 of our submission to ComReg 08/57.

In addition and in light of the award of the NBS contract to H3G, the following must also be taken into account in respect of coverage obligations. According to a Department of Communications, Energy and Natural Resources press release (dated 22 January 2008<sup>27</sup>)

*"The National Broadband Scheme will provide the remaining 10% of our population, or approximately 33% of the area of the country, with broadband services". "3" [H3G] will extend its network to provide mobile wireless broadband services into the NBS area."*

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<http://www.dcenr.gov.ie/Press+Releases/Government+announces+scheme+to+deliver+broadband+a+cross+Ireland.htm>

While there may be justification for a carry-over of existing coverage obligations (on a frequency neutral basis) extreme caution will be required to ensure that any coverage obligations remain reasonable and equitable, i.e. it must be clearly demonstrated that any coverage obligations will be economical to achieve by operators in the absence of subvention from the State.

## **6 Qualcomm Europe**

## **Qualcomm response to ComReg further consultation on Liberalizing the future use of the 900 MHz and 1800 MHz bands and spectrum release options**

Qualcomm welcomes the opportunity to respond to ComReg further consultation on the liberalisation of the future use of the 900 MHz and 1800 MHz bands and spectrum release options. Taking into account the various competition issues raised by ComReg in its consultation paper and which would be best addressed by the mobile operators, Qualcomm would like to limit its response to the following:

- Qualcomm strongly supports the refarming of the 900 MHz and 1800 MHz bands as soon as possible in 2009. An expedited liberalisation of the 900 MHz will bring significant benefits to Ireland consumers and citizens in terms of enhanced and more widely available mobile broadband services. In particular, UMTS900 will enable the expansion of broadband to rural areas and smaller towns and communities in a cost-efficient manner, with the resulting impact on productivity and employment. It will also enable the indoor coverage of 3G services to be improved.
- The Irish market has witnessed a dramatic increase in 3G mobile broadband usage over the past year. Mobile broadband showed the highest growth of all platforms in Q4 2008, growing by 15%. Between Q4 2007 and Q4 2008 mobile broadband subscriptions have increased by 142% while total broadband subscriptions grew by 35.4%<sup>1</sup>.
- The availability of UMTS900 devices has also rapidly improved in the past year. GSA's recent HSPA Devices Survey (March 10, 2009) confirmed 115 HSPA devices supporting operation in the 900 MHz band had been launched (compared with 20 devices by mid-2008) by more than 11 different suppliers.
- Qualcomm therefore applauds ComReg's initiative to accelerate the liberalisation of the 900 MHz and 1800 MHz bands by removing the GSM restriction which currently applies to these bands. This initiative will enable Ireland to comply in a timely manner with the obligations set by the Directive<sup>2</sup> amending the GSM Directive and which requires Member States to "make available the 880-915 MHz and 925-960 MHz radio spectrum bands (*the*

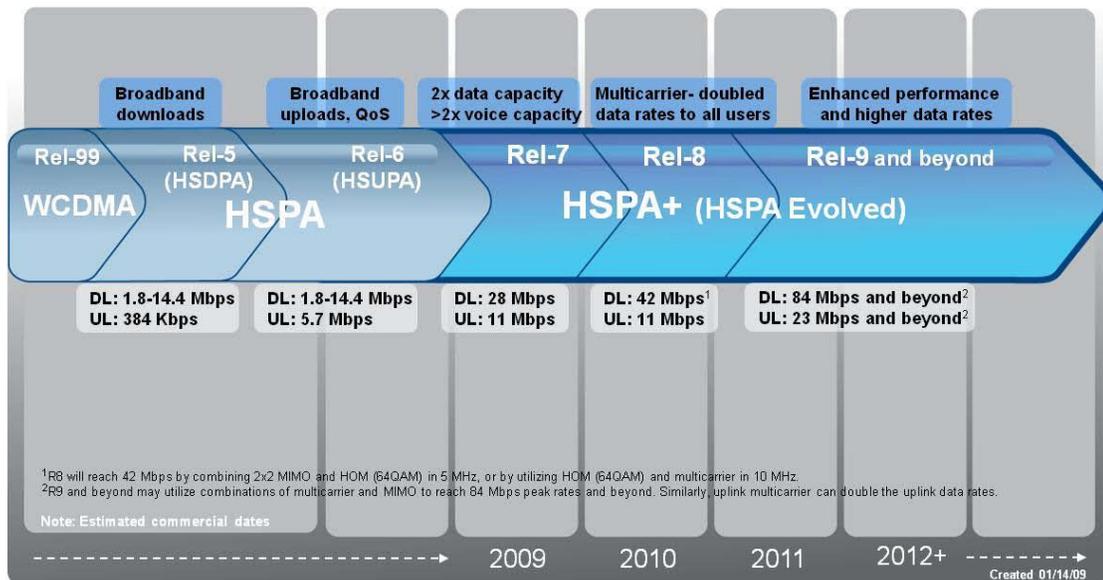
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<sup>1</sup> ComReg 09/17 "Quarterly Key Data Report"

<sup>2</sup> DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Council Directive 87/372/EEC on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community

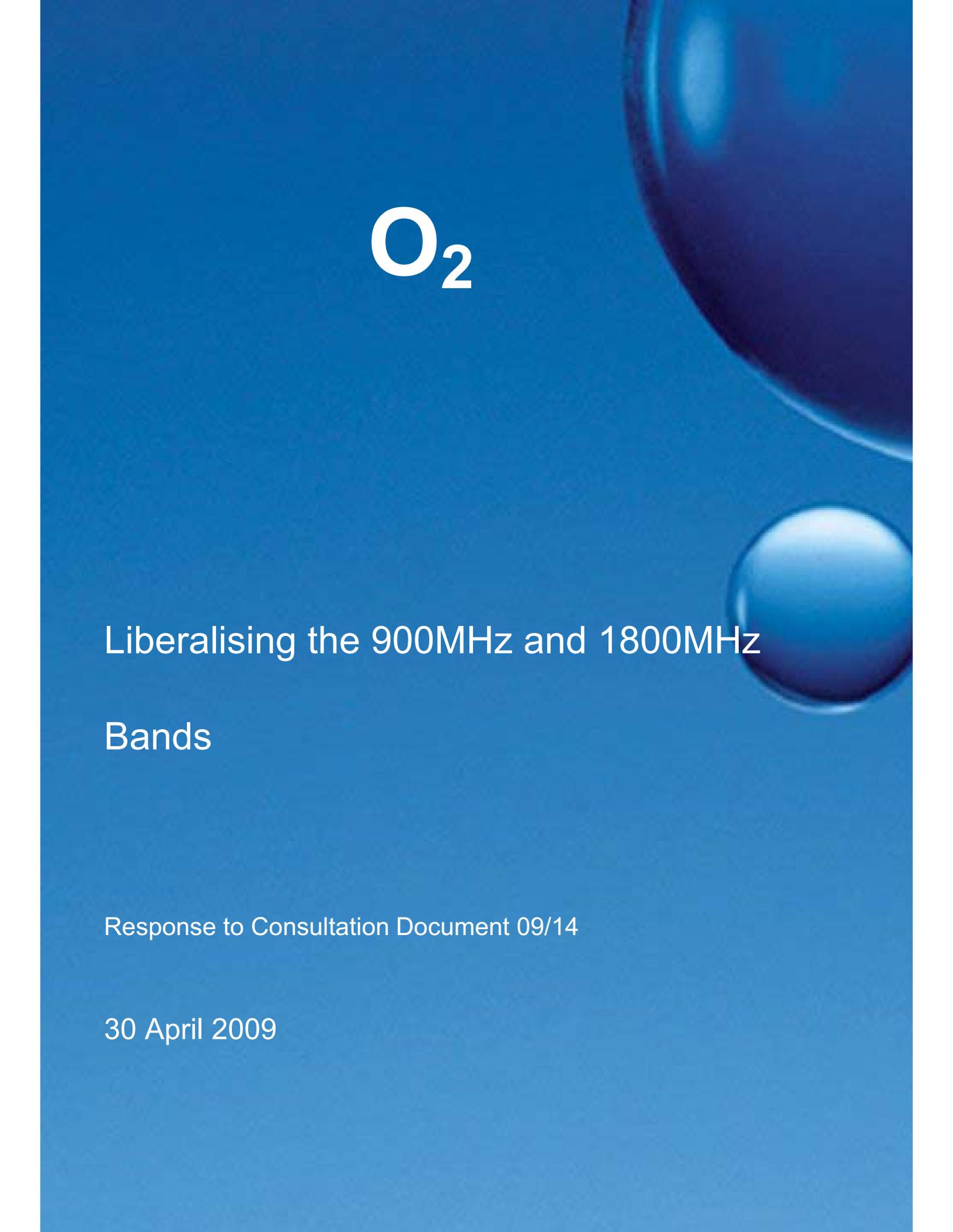
900 MHz band) for GSM systems and for UMTS systems ...”<sup>3</sup> and to “bring into force the laws, regulations and administrative provisions necessary to comply with this Directive within six months after the date of entry into force of this Directive ...”<sup>4</sup>. This amended GSM Directive will be adopted by the European Parliament and Council at the latest in June 2009 after a political agreement on a first reading agreement was reached at the Trialogue of the 24<sup>th</sup> of March 2009, the endorsement by the COREPER on the 27<sup>th</sup> of March and the vote by the ITRE Committee of the European Parliament on the 21<sup>st</sup> April.

- Qualcomm strongly believes that any liberalisation option of the 900 MHz and 1800 MHz bands should enable the mobile operators to launch UMTS900 without further delays in order to cope with consumers demand and citizens expectations.
- UMTS/HSPA, including in the 900 MHz, will continue to evolve towards enhanced performances and higher data rates, enabling richer mobile broadband services and supporting all market segments (Enterprise, Consumer, Fixed/Mobile/Nomadic) and device segments (handsets and PC cards, consumers electronics, Ultra Mobile Devices ...). HSPA+ is a strong and natural evolution path for UMTS:



<sup>3</sup> Article 1  
<sup>4</sup> Article 2

## **7 Telefonica O2 Ireland**

The background is a solid blue color with a subtle gradient. On the right side, there are several overlapping, semi-transparent blue spheres of varying sizes, creating a sense of depth and movement. The largest sphere is at the top right, and smaller ones are positioned below it.

O<sub>2</sub>

Liberalising the 900MHz and 1800MHz  
Bands

Response to Consultation Document 09/14

30 April 2009

## 1. Introduction

This is O2's (Telefonica O2 Ireland) response to ComReg's document 09/14, the second consultation on issues surrounding liberalisation of the 900MHz and 1800MHz bands. It is further to O2's response to document 08/57 submitted in September 2008 and both documents should be considered together. Though ComReg has considered new options, many of the points raised by O2 at that time remain valid, and in general, this document does not repeat detailed points already made.

As previously stated, this is an important consultation as the decisions taken will have implications for consumers, operators, and investment in the electronic communications sector. There are some detailed and complex issues to be considered, and ComReg has not given adequate time and notice during this consultation for the issues to be fully examined. O2 reserves the right to make further comment on issues relevant to this consultation.

In its response and second consultation, O2 believes ComReg has based its position on a number of invalid assumptions, however as the consultation process seems to have "moved on" and some of these seem to no longer have a serious implication for ComReg's decision making, O2 has not responded or commented specifically on all of these points in this document, however O2 reserves the right to comment further on any and all of these points if they again become relevant. In addition, there are several aspects to ComReg's current proposals and options that are either undecided yet or are unclear from the consultation document. O2 has sought clarification from ComReg in relation to a number of these issues during the consultation, unfortunately the response provided little clarity or additional information, which has made it difficult to consider the proposals thoroughly. O2 may need to make further comments, or vary its response to this consultation as the relevant details are clarified by ComReg.

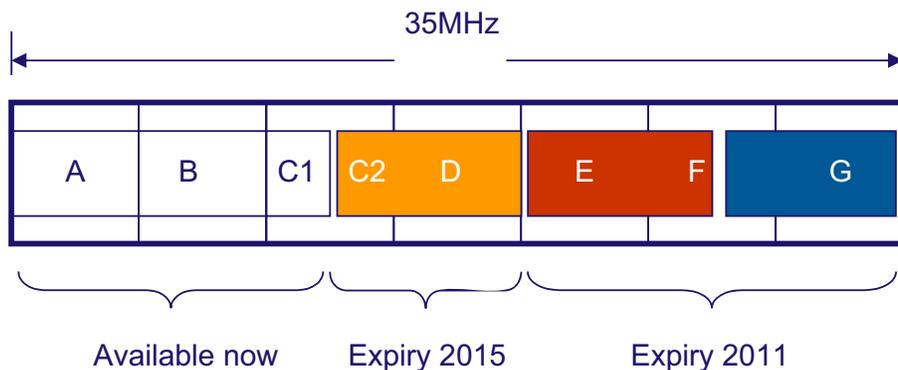
This consultation addresses two out of a number of spectrum bands that can be used for mobile electronic communications (900MHz and 1800MHz). Other relevant bands include the Digital Dividend (800MHz) the 3G Core band (2100MHz) and the 2.6GHz band. Decisions taken by ComReg regarding the future availability of any one of these bands will have implications for demand for the other bands. In particular, the Digital Dividend is relevant for the 900MHz band. ComReg is currently consulting on the Digital Dividend (09/15) and should make its response to that consultation available before any modification of the current assignments in the 900MHz band.

## 2. General Comments

### 2.1 900MHz Band

There are a number of issues or difficulties that ComReg must seek to resolve in its review of the assignments in the band, including:

- That the licences of O2 and Vodafone face expiry in mid-2011 and certainty on the future use of the spectrum must be provided
- Consumers are still heavily dependent on the services provided by O2 and Vodafone in the band, and they will need to be continued beyond 2011
- The GSM Directive is due to be amended to permit compatible technology in addition to GSM to operate in the band (in the first place 3G), and ComReg needs to provide licences that allow for this change of technology or service
- Ideally, the final assignments in the band should be made of whole blocks of 2x5MHz – this is required for 3G operation
- The current assignments don't match with the final arrangement of 7 blocks of 2x5MHz. In particular blocks C and F are partially covered by different allocations



- The current assignments do not allow for easy aggregation into whole blocks of 2x5MHz
- There is unassigned spectrum that ComReg should make available for use
- There is insufficient spectrum in 2x7.2MHz for an existing operator to introduce 3G service in the band while maintaining the minimum necessary quality of GSM service
- The licence terms need to facilitate continued investment in networks and services
- If any operator is assigned more than one block, then they should be contiguous for maximum efficiency

### 2.2 Continued operation of GSM 900MHz

As stated in response to 08/57, the GSM service currently provided in the 900MHz band is critical for day-to-day life in Ireland. These networks

provide the ubiquitous services that are used and depended upon by a majority of consumers and businesses. If either Vodafone or O2 were to lose access to 900MHz spectrum in the short term this would cause severe disruption to mobile communications service for a large number of users. O2 is pleased to note that ComReg has accepted these points and as a result has proposed new options (specifically Option 2) with the aim of resolving the issues.

None of the alternative solutions proposed by ComReg (build alternative networks or seek National Roaming) is a realistic alternative to Vodafone and O2 continuing operation of service in the 900MHz band. It would not be feasible between now and mid-2011 to build coverage using alternative bands to the same quality as the networks that have already been built using 900MHz. A new entrant to the market would not have built equivalent coverage for a number of years after 2011 (if ever), and O2 does not believe that either Vodafone or O2 could carry all of the national roaming traffic for all other network operators if one was to lose its 900MHz assignment.

There remains a consumer demand for GSM service, and O2 believes this will continue and will be significant at least until 2015, despite the migration to 3G and other services (in fact at this time, the volume of traffic carried on O2's GSM network continues to grow). ComReg needs to protect these consumers as is envisaged in the RSC Decision<sup>1</sup> on liberalisation of the band:

“(6) The current use of GSM in the 900 MHz and 1800 MHz bands should remain protected in the whole Community as long as there is a reasonable demand for the service”.

O2 is aware that the issues raised by expiry of original GSM/900MHz licences have been faced in a number of other European countries. In no other country has the National Regulatory Authority permitted a situation to develop where existing 900MHz operators could lose all of their 900MHz assignments. In its proposal to resolve the various issues listed above, ComReg must find a solution that protects the existing 900MHz networks. This is in the consumers' and the country's best interest, and as has been stated in detail in response to document 08/57, this is also compatible with the regulatory framework.

### **2.3 Investment**

O2 notes the comments made by ComReg in relation to investment by current operators in the band. Contrary to what ComReg has stated, O2 has continued to invest in its 900MHz network. A major upgrade to the access network, including GSM at 900MHz was completed last year, and the decision to make this investment was made in the context of previous statements by the regulator regarding the possibility to extend use of 900MHz spectrum. ComReg has obviously changed its position in relation to this point and now states that this commitment is not binding, however

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<sup>1</sup> RSCOM07-04

the reason for this change of position has not been explained, despite such explanation being requested by O2 in response to 08/57.

O2 has reviewed the Merrill Lynch Global Wireless Matrix referred to by ComReg on page 26 as evidence of declining investment in 900MHz in Ireland by O2 and Vodafone. The conclusion is simply not supported by the data in the report. Telefonica's SEC filing also merely records facts regarding current licences, it does not in any way consider our expectation for renewal or extension as it was always envisaged that the extension would require some process to demonstrate the continuing requirement. ComReg's position would seem to be that operators would only make an initial investment at the beginning of the licence, then sit-back and run down the network and service until the licence expires. This is absolutely not the reality, and nor would it be in the interest of consumers.

#### **2.4 Licence Duration**

In relation to the most appropriate licence duration, O2 would again repeat its position that ComReg should consider indefinite term licences. With appropriate conditions, this would incentivise continued investment and would avoid a repeat of the current difficulty where existing and essential services are facing licence expiry. O2 notes that spectrum trading in Ireland will require legislative change, however would encourage ComReg to request that the Minister prioritise this change. Contrary to the reservations expressed by ComReg in 09/14, O2 notes ComReg's position in its spectrum strategy (08/50, section 3.5.2) in favour of spectrum trading.

#### **2.5 Opportunity for current operators to re-farm**

While GSM will play an important role in the provision of mobile electronic communications for some time to come, O2 would accept that in the long term it will be replaced by alternative technology. At present, the most likely replacement for GSM in the 900MHz band would appear to be IMT2000 Technologies (3G), however other alternatives are also likely in future.

Clearly, there will be a requirement for existing operators to migrate GSM customers over to 3G or other alternatives. Current operators of 900MHz services must be given a fair opportunity to obtain liberalised spectrum in the 900MHz band which can be used to introduce 3G or other technology. Overall, this will be most beneficial to consumers. O2 will require a minimum bandwidth of 2x10MHz in the 900MHz band to achieve this migration.

#### **2.6 Assessing the Real Demand for Spectrum**

O2 notes ComReg's assertion that there is an excess demand for 900MHz spectrum over supply, and it is this issue that drives the central assumption that an auction or alternative process will be required to resolve assignments. O2 has reviewed the published versions of responses received by ComReg to 08/57, and finds that this is far from established.

In particular, O2 notes that a number of respondents expressed the view in relation to both 900MHz and 1800MHz that the spectrum should be made available, however ComReg seems to have considered these views differently for the two bands. For 1800MHz, ComReg has concluded that the demand for access to spectrum is not credible and that it can delay making new assignments (possibly until 2013). The position was adopted partially based on the view that the availability of new technology for this band is uncertain, however O2 would note that in Finland this month operators have been assigned 1800MHz spectrum for provision of LTE services.

O2 believes there may well be sufficient spectrum available in the 900MHz and 1800MHz bands to meet the real demand, which would obviate the necessity for a complex auction process. O2 would now urge ComReg to carry out a review immediately following the closing of this consultation with the aim of establishing the real demand for spectrum in the 900MHz and 1800MHz bands. Without being exhaustive, this should involve some testing of the expressions of demand. O2 believes this could well lead to a straightforward solution to the various issues ComReg must now resolve.

### **2.7 Benefits of 900MHz vs other bands**

O2 notes that ComReg has published the redacted version of a report produced by Villicom on UMTS design and cost. It is unclear to what extent this report will influence ComReg's decision making on the 900MHz band; however some initial and brief observations are given here. O2 reserves the right to comment further on this if it becomes central to the decision making process.

In brief, we would caution against using this report as a measure of the advantages of 900MHz over any other band. The report considers one aspect of the "ecosystem", which is the access infrastructure design for a green field operator having to build a new network. It is a theoretical exercise based on disputable assumptions. In other countries where this has been examined, it has been found that the cost of an existing operator reducing their assignment of 900MHz can outweigh any benefit that could be gained.

### **2.8 Minimum Process Requirements for 900MHz**

The process that ComReg uses to resolve the various issues identified above must in the first place find a solution to the requirement to provide security for existing operators in the band. When this has been resolved, there are a number of requirements of the subsequent process:

- to maximise the quantity of 900MHz spectrum available for assignment at each stage
- to provide for re-tuning of assignments to allow aggregation of isolated sub-blocks
- to give existing operators an equal opportunity to access spectrum in the band to provide 3G or other services

- to assign the spectrum in an efficient manner and not act as a tax on operators or be designed to maximise access fees.

In order to satisfy these requirements, O2 would again refer ComReg to section 6.4 of its response to consultation document 08/57. O2 would repeat its view that where auctions are required, a two-stage process should be used. There would be a principal stage in which bidding is for abstract lots, followed by an assignment stage where specific lots are assigned.

This, combined with the requirement for operators to re-tune can maximise the efficiency of use of the band. It ensures that any spectrum released by existing operators, (either as a consequence of their bidding in the auction and breaching a spectrum cap, or because they have released some spectrum in advance of the auction) is re-circulated together with the currently unassigned spectrum in the band (this includes the current blocks A, B and C1). This would allow aggregation into the maximum number of free lots.

### **3. ComReg's Revised Proposals**

ComReg has proposed two new processes to resolve the various issues in the 900MHz band: Option 1 a single auction of the entire band; and Option 2 a multi-staged process including a possible extension of GSM licences.

#### **3.1 Option 1**

ComReg can not adopt this proposal, as it provides no protection for existing operators of 900MHz. These operators stand to lose some or possibly all of their current assignments in the band, the adverse consequences of which have already been discussed at length. O2 does not believe any of the alternatives proposed by ComReg if this situation were to occur is viable.

#### **3.2 ComReg's Option 2**

O2 believes ComReg's option 2 could provide the basis for resolution of a majority of issues in the band, subject to certain conditions and modifications. ComReg would need to:

- Avoid making this option un-viable by charging an excessive fee (see further detail below). ComReg should engage with O2 to clarify this point immediately
- Complete the application and decision making process for extension of current licences in advance of any auction of unassigned spectrum – this will allow any released spectrum to be included in the first auction
- With the exception of compulsory release of spectrum in excess of the cap, place no restriction on existing operators participating in the auctions
- Make all unassigned and released spectrum available for assignment in the auction. This would require that Block C1 is

included, any spectrum released by existing operators prior to the auction, and in addition any spectrum that must be released by operators as a result of their breaching the spectrum cap by buying a lot in the auction. For example, if an operator had been granted an extension for 2x7.2MHz but was bidding for either one or two lots of 2x5MHz, then the excess 2x2.2MHz should be made available at this stage of the auction. This could be combined with block C1 to form a complete lot. A similar rule would apply if all three existing GSM operators participated in the auction - if they were to be successful there would be 3x(2x2.2MHz) to be released which could be combined with Block C1 and the existing Guard Bands to form two additional lots. This is the most efficient assignment process.

- All operators would need to be prepared to re-tune their existing assignments to allow for final aggregation. While O2 believes this can be achieved in practice, there are a number of processes involved, and it might be necessary for the re-tuning to occur for each operator in sequence. It will depend upon the particular circumstances, however 6 months might not be adequate time.

This variation on ComReg's Option 2 would work because it:

- provides the essential protection required for existing networks and services
- allows both new entrants and existing operators an equal chance to obtain liberalised spectrum
- maximises efficiency by allowing all un-used spectrum to be assigned at the earliest opportunity
- could minimise the number of auctions required – (e.g. 2009 & 2015 only)

ComReg's proposal as it stands has a number of failings because:

- bids would be made on two specific lots only, creating an artificial restriction on supply
- it is inefficient as it does not allow all unused and released spectrum to be assigned when available
- it is more likely to require multiple auctions.

### **3.3 Licence Extension Fee**

ComReg needs to take into account current market conditions when developing licence fees. The mobile communications industry is impacted by the current economic downturn as have many other businesses. Contrary to the assumptions ComReg has made in both 08/57 and 09/14, operators are experiencing growing volumes and declining ARPU. ComReg's own data shows ARPU has declined by 23% in the past two years<sup>2</sup>.

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<sup>2</sup> [http://www.comreg.ie/\\_fileupload/publications/PR160409.pdf](http://www.comreg.ie/_fileupload/publications/PR160409.pdf)

O2 is extremely concerned that ComReg's proposed method for setting the licence fee for any extended licence could make this option unviable. Clarification on specifically how ComReg is minded to determine the fees for an extension was sought during the consultation, however ComReg was unable to provide any additional information. ComReg should engage with O2 (and possibly Vodafone also) immediately following this consultation to clarify specifically how the extension fees might be determined.

ComReg is considering that there could be two separate elements to this fee – an up-front element and an annual payment based on two unrelated factors. An operator must consider the overall cost of such an extension as a single item to determine if it is feasible.

Operators will continue to provide GSM services while there is a reasonable consumer demand for them – this is in the best interest of consumers. Following from ComReg's assertion that 3G services give operators the opportunity to provide higher value products, and hence increase revenue per user, then operators already have an incentive to migrate customers off GSM to 3G or other technologies. It would be improper for ComReg to attempt to penalise operators with a fee for continuing to provide service in the public interest.

Article 13 of the Authorisation Directive specifies the terms under which national regulators may set licence fees, including the requirement that they shall ensure that such fees shall be objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose. ComReg's proposal to impose an up-front fee in some way based on savings that an operator could make through use of the spectrum would not meet these requirements. In particular, O2 is concerned by the element of subjectivity introduced by ComReg's proposal. O2 is of the view that there should be no up-front element to the calculation of the overall extension fee, and neither should there be an up-front element to the schedule of payments. Distributing payments throughout the duration gives an incentive to release the spectrum as soon as it is no longer required for GSM.

### **3.4 1800MHz Band**

There are a number of items that remain to be considered in relation to the 1800MHz band, including liberalisation of existing licences, and the assignment of available spectrum. O2's interpretation of the current text of the proposed amending directive<sup>3</sup> is that Member States will be required to implement the Directive within six-months of the publication of the final amendment. This will require ComReg to review existing 900MHz licences in accordance with the Regulatory Framework. Associated with this Directive is the Commission Decision that covers the technical implementation measures relating to both the 900MHz and 1800MHz bands. Once this Decision is finally adopted, ComReg will be required to

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<sup>3</sup> <http://www.europarl.europa.eu/oeil/file.jsp?id=5718632>

make this band available for the other services listed in the Annex, in accordance with Article 3(2) of the decision. ComReg may wish to offer to liberalise existing licences 1800MHz licences in advance of being approached by existing licensees to vary their licence in accordance with the terms of the Commission Decision.

O2 therefore disagrees with ComReg's conclusion that the currently un-assigned spectrum should remain so until closer to 2013. As explained in section 2.7 above, ComReg can not conclude that there is an excess demand for 900MHz spectrum while at the same time there is no requirement to assign spectrum in the 1800MHz band. ComReg should carry out a review to determine the real demand for both bands.

## **4. MVNO**

ComReg proposed in consultation document 08/57 to include MVNO conditions in any radio spectrum licence issued in the 900MHz band. In response, O2 pointed out in some detail why this is not permissible under the Regulatory Framework (see section 4 of the response). It is surprising that this concept has again been raised in the second consultation, albeit on the basis of a commitment rather than a condition. Nevertheless the current proposal by ComReg is also contrary to the Regulatory Framework, as detailed below.

### **4.1 Compliance with Article 7 of the Authorisation Directive**

Within the EU regulatory framework, NRAs have considerable latitude regarding how radio spectrum is managed in their own territories. This latitude principally relates to how spectrum is assigned to individual users.

There are two principal approaches that can be taken to assigning spectrum where demand exceeds supply namely, administrative (comparative selection) and market-based approaches (auctions and trading). Whichever approach is taken, the procedure must comply with the principles defined in Article 7 of the Authorisation Directive ("Procedure for limiting the number of rights of use to be granted for radio frequencies"). Under Article 7, selection criteria must be objective, transparent, non-discriminatory and proportionate, and give due weight to achieving the objectives set out in Article 8 of the Framework Directive (including consumer benefit, efficiency and single market objectives).

### **4.2 Imposing Conditions under the Authorisation Directive**

EU legislation also harmonises (Article 1 of the Authorisation Directive) the conditions that may be imposed by NRAs when assigning spectrum and explicitly states (Article 6(1) of the Authorisation Directive) that the harmonised list is exhaustive of the conditions that may be imposed.

As far as radio spectrum assignment is concerned, that harmonised (and exhaustive) list of conditions is set out in Part B of the Annex to the Authorisation Directive.

ComReg will be aware that the list does not include any reference to a condition relating to infrastructure access (including MVNO access), and as a consequence MVNO access cannot be imposed by ComReg when assigning radio spectrum.

#### **4.3 The MVNO “commitment”**

O2 notes that, despite this apparent regulatory obstacle, ComReg seems determined to advance its proposal “*to incorporate licence conditions (sic) requiring the provision of MVNO hosting services in any licences issued following liberalisation*” (ComReg 08/57, 7.3.4). Perhaps in acknowledgement of the absence of any proper legislative mandate for such a condition, ComReg in consultation document 09/14 (7.1.2) seems to suggest a more indirect method to achieve its MVNO objective.

ComReg seems to want spectrum applicants to offer a commitment to provide MVNO access. Reference is made to the provision in the Authorisation Directive (Point 7, Part B of the Annex to the Authorisation Directive) that “*any commitments which the undertaking obtaining the usage right has made in the course of a competitive or comparative selection procedure*” may be attached as conditions to a radio spectrum assignment.

ComReg seems to believe that this provision could allow it a basis for the imposition of a MVNO condition on operators.

O2 does not agree for two reasons: first, ComReg cannot dress up a condition as a commitment and then argue that it is covered by Point 7 of Part B of the Annex; secondly, where willingness to commit to MVNO access has become a selection criterion, it must satisfy the tests for selection criteria set out in Article 7 of the Authorisation Directive and there is no indication that the MVNO “commitment” does (or could) satisfy those tests.

#### **4.4 Dressing a Condition as a “Commitment”**

In support of its first ground of disagreement, O2 observes that ComReg’s approach risks dressing a condition up as a commitment. Conditions and commitments are not the same thing and ComReg cannot pretend that a condition is a commitment in order to overcome the absence of any proper legal base for imposing an MVNO condition in its spectrum assignment.

The distinction in EU law generally, and in EU communications law in particular, between regulatory conditions and commitments is clearly drawn. It is evident in the drafting of Parts B and C of the Annex to the Authorisation Directive which clearly distinguish between commitments and conditions. It is particularly clear from a review of the use of these terms in the EC Merger Control Regulation (ECMR).<sup>4</sup>

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<sup>4</sup> ECMR, Recital 30: “It should be expressly provided that the Commission may attach to its decision *conditions and obligations* in order to ensure that the undertakings concerned comply with their *commitments* in a timely and effective manner so as to render the concentration compatible with the common market” (emphasis added)

The essential difference is that a commitment is a solution volunteered by an undertaking, principally to resolve a regulatory impasse; a condition is a solution imposed by a regulator.

Where an operator is required to confirm in advance its willingness to accept a certain type of solution by giving a specific commitment and that confirmation on the operator's part is a pre-condition for its participation in a selection procedure, the necessary element of volition associated with a commitment is lacking. The solution (in the form of the "commitment") is determined and imposed by the regulator. If a commitment was merely the acquiescence of a bidder to an obligation identified in advance by a regulator, there would be no need for the distinction between commitments and conditions.

A requirement on the part of ComReg that a commitment on MVNO access be given by bidders as a pre-condition for participation in the selection procedure means that the "commitment" is not voluntary and is in fact a condition. As such, it is not permissible because it falls outside the exhaustive list of conditions contained in Part B of the Annex to the Authorisation Directive.

#### **4.5 The MVNO "commitment" does not pass muster under Article 7**

Secondly (and without prejudice to its submission above that the inclusion of a requirement for an MVNO "commitment" would be impermissible), O2 observes that ComReg has not provided any explanation as to why it believes that the inclusion of MVNO access as a selection criterion could satisfy the tests of objective justification, transparency, non-discrimination and proportionality in the Authorisation Directive; in O2's view, such a criterion could not pass the tests.

In formulating its observations on this point, O2 is relying on its understanding that ComReg is suggesting that the nature and extent of bidders' willingness to commit to MVNO access may be a criterion which will inform ComReg's selection of spectrum licensees. The clear sense that O2 has taken from ComReg's questions on page 57 of 09/14 is that ComReg is considering making an MVNO "commitment" a condition for participation in the selection procedure or a criterion against which a bidder's application will be judged.

Article 7 (3) of the Authorisation Directive requires NRAs, when engaged in spectrum assignment, to grant rights "*on the basis of selection criteria which must be objective, transparent, non-discriminatory and proportionate*"<sup>5</sup>. O2 must emphasise that what this provision requires is that the selection criteria pass the four-fold test; the use of a criterion that does not satisfy one of those four tests is unlawful. Reliance on it may taint the entire selection procedure.

O2 submits that, if ComReg intends to pursue a selection procedure which would have as one of its criteria the willingness of bidders to offer an

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<sup>5</sup> NRAs are also required to ensure that selection criteria give due weight to the achievement of the objectives of Article 8 of the Framework Directive.

MVNO "commitment", it will have to explain how that criterion satisfies the Article 7 (3) tests of objective justification, transparency, non-discrimination and proportionality. While ComReg has mentioned these tests in ComReg 09/14 in the context of the MVNO "commitment", it has not provided any indication as to how the inclusion of an MVNO "commitment" might be reconciled with the Article 7 (3) tests

- *Lack of objective justification*

It seems to O2 that ComReg's proposal in respect of the MVNO commitment is a solution looking for a problem. In document 08/57, ComReg said (7.3.4) that "it may be justifiable to regulate MVNO access in the interests of promoting competition". However, in O2's view the inclusion of an MVNO criterion is not objectively justified by reference to current conditions of competition in the provision of mobile telephony services in Ireland. The market has four operators each with its own network and one MVNO. There is currently un-assigned spectrum in the 1800MHz band that could be used to facilitate the entry of a new network based operator. There is no lack of competition, in terms of market participation, when compared to other countries of similar economic and demographic profile. O2 also notes that ComReg has not conducted any in-depth analysis of the provision of mobile telephony in Ireland which would permit it to justify a view that competition is insufficient or ineffective and that the imposition of an MVNO solution is necessary or appropriate. On the contrary, in O2's view, such an in-depth study, if undertaken, would find that the market is competitive.

- *proportionality*

O2 believes the inclusion of an MVNO selection criterion would not be proportionate. ComReg's objective in including such a criterion, as far as O2 can understand, is explained in terms of mandating access for MVNO operators to the networks of operators holding radio spectrum assignments in order to promote competition. The EU legislative framework includes provisions (notably Articles 8 and 12 of the Access Directive) which provide for intervention by regulators to impose access obligations on network operators where certain conditions are satisfied (in particular, the existence of market power). In circumstances where the legislative framework already provides the solution in the event of a problem arising, O2 cannot see how ComReg could justify as proportionate the imposition of a similar solution in the absence of evidence of the existence of the problem that the solution is designed to alleviate. MVNO Access is a remedy for market dominance that should only be imposed on dominant operators. ComReg's proposal would see the obligation imposed on all operators, regardless of market power.

ComReg risks breaching the principle of proportionality if it imposes a solution where there is no problem or where the applicable legislative framework already provides for a more appropriate form of intervention.

#### **4.6 Risk of Challenge and Delay**

Finally, O2 must express its concern that the lawfulness of a ComReg decision to include an MVNO commitment requirement could be challenged. This would lead to delay and uncertainty which would be contrary to the interests of consumers and operators. ComReg should not use the spectrum assignment as an opportunity to experiment with the boundaries of regulatory intervention or to impose solutions for problems that have not been clearly identified. To do so unnecessarily risks delay to the process.

### **5. Response to Specific Questions**

**Q. 1. MVNO and the competitive process**

**Q. 2. MVNO licence commitments**

**Q. 3. MVNO Wholesale Pricing**

**Q. 4. MVNO Technical Issues**

See section 4 above for a detailed consideration of ComReg's proposal to require MVNO Commitments or Conditions. This is not permissible under the Regulatory Framework.

**Q. 5. Do you believe that the Options for the release of spectrum in the 900 MHz set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg?**

No. O2 and the other respondents have already given detailed responses to ComReg on the three options presented in document 08/57. ComReg has considered those responses, and proposed two new alternatives.

**Q. 6. Which of the two Options described above for release of spectrum in the 900 MHz band would you prefer? Please provide supporting arguments with your answer.**

Please refer to the detailed comments given in section 3 above. Option 1 is not suitable as it leaves existing operators open to losing 900MHz spectrum. Option 2 might be a suitable solution to the various issues ComReg must resolve in the 900MHz band, but only if the specific modifications and conditions described in section 3.2 are included.

**Q. 7. What variations of the two Options should ComReg consider in finalising the process? Again please provide supporting arguments with your answer and suggest a detailed alternative if applicable.**

See response to question 6 above.

**Q. 8. Are there any other new Options that ComReg should consider? Please provide supporting arguments with your answer.**

Please see section 2.6 above.

**Q. 9. In the above Options, do you agree with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months?**

The time required to re-tune networks will depend on the eventual spectrum assignments, and there are various issues that might or might not arise, e.g. whether all network elements (including repeaters) can tune across the full band. It might also be necessary for operators to re-tune in sequence. While ComReg is correct to signal that a maximum time will be required, it would seem premature to specify what that time should be now.

**Q. 10. Under Option 2, and in the event that the existing 900 MHz licensees wish to continue use of their frequency assignments beyond the expiry dates of their current licences, do you agree with the principles ComReg has outlined for use when setting an increased spectrum fees levy appropriate for those extended licences? Please provide supporting arguments with your answer and suggest a detailed alternative if applicable.**

Please see detailed comments in section 3.3 above.

**Q. 11. It is ComReg's intention to include conditions in any new 900 MHz licences issued.**

- a. Should the conditions be limited to existing services such as voice and text or be broadened to include other services such as broadband?**
- b. What kind of conditions (e.g. Coverage, Roll-Out, Quality of Service, etc.) should be included?**
- c. At what level should these conditions be set? Please provide reasons for your views.**

In the interest of efficiency, ComReg should include some conditions to ensure that the spectrum is actually brought into use. These should be basic or minimum conditions and not overly prescriptive. The conditions should allow operators to optimise their use of spectrum in various bands to provide the optimum service.

## **8 UPC Ireland**



## UPC Response to ComReg consultation document 09/14

UPC welcomes the opportunity to comment further on ComReg's proposals for the future use of the 900Mhz and 1800Mhz spectrum bands and spectrum release options.

UPC has limited commentary to those questions on which it has an opinion.

### Section 1. Proposals for the release of 900Mhz spectrum

**Q6. Which of the two Options described above for release of spectrum in the 900 MHz band would you prefer? Please provide supporting arguments with your answer.**

Answer: Option 1 since this provides for a more coordinated all available spectrum in this band including that which is used and unused.

**Q7. What variations of the two Options should ComReg consider in finalising the process? Again please provide supporting arguments with your answer and suggest a detailed alternative if applicable.**

Answer: Option 1 provides that existing licensees can bid for an additional 2x5 Mhz of spectrum and determine, of their own accord, from where within their existing spectrum band they source 2x 2.2Mhz of spectrum to be handed back to ComReg ( in order to respect the 2x 10Mhz spectrum cap).

Under this proposal an incumbent could receive 2x5 Mhz contiguous block and give up a 2.2 Mhz block that is useless for any new technology that requires contiguous blocks. This could lead to a situation whereby existing mobile network operators (MNO) could effectively lock out new entrants from deploying new and disruptive technology.

ComReg should provide that existing MNO's are ineligible to bid on either of the new 2x5 Mhz blocks (A & B). Instead these should be reserved and allocated in its entirety to one new *mobile* entrant.

Any new mobile entrant will have to compete with the incumbent mobile operators that, in addition to acquiring their original licences out of auction, have the added benefit of first mover advantage as well as having presumably recovered costs or already obtained (some) return on their initial network investment. While there is no denying existing operators may incur additional expense in modifying their networks to offer new services, they will have financially gained from having had access to this very valuable spectrum for a number of years as well as having the additional advantage of already having an established customer base.

An alternative fee structure could be considered for new entrants such as a beauty contest (without fees) based upon their ability to offer real alternative competition to the current status quo coupled with the usual requirements on population coverage etc. The licence fee should offset market entry costs for a new mobile entrant who will greater upstart costs that existing providers will have.



Current licence holders all have additional spectrum at 1800 MHz and some at 2100 MHz so they will not be disadvantaged by this allocation. In addition, existing operators also already have a dense cell site network that does not necessitate them to have to operate at 900 MHz.

UPC fully supports the principle of technology neutrality and would advocate this should be applied to existing and future licences in the 900 MHz and 1800MHz bands. This would ensure an operator is not limited to offering 2G, 3G, or even 4G services but can offer whatever services best suit their business model and will offer a return on their investment. ComReg should therefore amend the proposal to reflect service neutrality and not limit even existing licences to 2G services.

**Q8. Are there any other new Options that ComReg should consider? Please provide supporting arguments with your answer.**

Answer: See answers to questions 6 and 7.

**Q. 9. In the above Options, do you agree with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months?**

Answer: This timeframe would seem reasonable however in order for it to be effective ComReg should make a condition of the licence.

**Q. 11. It is ComReg's intention to include conditions in any new 900 MHz licences issued.**

**a. Should the conditions be limited to existing services such as voice and text or be broadened to include other services such as broadband?**

Answer : The terms of the licence should be technology and service neutral.

## **Section 2: Annex B response**

**Q. 1. MVNO and the competitive process:**

**a. What would be the impact of MVNOs on competition and investment?**

A MVNO can drive innovation, competition and generate additional consumer choice however the existence of an MVNO is dependent on it having the ability to get reasonable wholesale arrangements for tower and radio spectrum access so it can differentiate their own services from both a product and price perspective. Without this the MVNO parties become just resellers of the MVNO's products and offer little more than another channel to market for existing products rather than fostering competition.

If ComReg wishes to foster new competition and drive innovation across all operations they should also seek to regulate economic site access and economic roaming charges (outside their built-out areas) for new mobile entrants and make this a condition of all licence renewals and grants.

**Q. 2. MVNO licence commitments:**

**a. What should be the minimum services encompassed by MVNO licence commitments?**

Apart from the incumbent agreeing to provide a quality of service that equals what the incumbent has on their own retail offering there should be no minimum service requirements. Beyond that there should be no minimum services in the licence.

**b. Should any services be excluded or should this be left solely to normal commercial agreement?**

Ideally this should be left to commercial agreement however in the event ComReg may wish to consider including some form of regulatory oversight to ensure that all reasonable requests for an MVNO are met with an economic offer.

**c. How might MVNO licence commitments be enforced? What criteria, processes and timelines might apply?**

ComReg could consider minimum commercial requirements a network operator would have to meet in response to requests from an alternative operator (e.g. pricing to be dependent on the amount of data or voice transmitted) which would allow for a reasonable return on margin by the MVNO.

With regards enforcement. ComReg could consider making the above or any additional criteria a condition of an operator's licence. Penalties for failing to provide for an MVNO could include a claw back on spectrum allocated if the licensee has not provided an economic MVNO offer within a specified timeframe of having been received a request. Licensees could be obliged to table an MVNO offer within a certain period of having being their licence.

Alternatively ComReg could consider allocating bidding credits to any potential bidder if they agree to the governments MVNO requirements. For instance, a bidder who agrees to ComReg's MVNO requirements could get a certain discount (e.g. 20%) on the bid price (ie an operator would only pay 80% of what they actually bid). This would involve ComReg laying down strict MVNO requirements for any operator wishing to avail of these bidding credits. For instance, both voice and data services must be offered on a wholesale basis to MVNO's and the deals must be retail minus arrangements of at least 10 to 20 % off retail without service restrictions. That means any retail offering given by the operator must be offered at a wholesale basis under retail minus terms.

ComReg could refer to the United States for examples of how bidding credits have been applied to spectrum auctions in the recent past (e.g. 700Mhz).

**Q. 4. MVNO Technical Issues:**

**a. Are there any technical or practical constraints to the inclusion of MVNO commitments within future 900 MHz licences in a liberalised setting? Please provide reasons for your view.**

Not that we are aware.

**Q. 5. Do you believe that the Options for the release of spectrum in the 900 MHz set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg? If yes, please provide detailed supporting argument with your answer.**

If they are further considered we would refer to comments previously made on these three options.

**Q. 6. Which of the two Options described above for release of spectrum in the 900 MHz band would you prefer? Please provide supporting arguments with your answer.**

See Answer to question 6 and 7 under Section 1

**Q. 7. What variations of the two Options should ComReg consider in finalising the process? Again please provide supporting arguments with your answer and suggest a detailed alternative if applicable.**

See Answer to question 6 and 7 under Section 1

**Q. 8. Are there any other new Options that ComReg should consider? Please provide supporting arguments with your answer.**

See Answer to question 6 and 7 under Section 1

## **9 Vodafone Ireland**



**Vodafone Response to the ComReg Further Consultation on  
Liberalising the Future Use of the 900 MHz and 1800 MHz Spectrum  
Bands & Spectrum Release Options**

## Executive Summary

Vodafone welcomes the opportunity to respond to this further consultation on the future use of the spectrum in the 900 MHz and 1800 MHz bands. This executive summary outlines Vodafone's main concerns with ComReg's latest proposals for the future use of the 900 Mhz band in particular. Detailed responses to the particular questions posed by ComReg in relation to future licensing of the 900Mhz band in this consultation are set out further below.

Vodafone wish to state at the outset our disappointment at the totally inadequate period of time permitted for responses to this consultation – even allowing for the additional two weeks granted by ComReg on foot of a request from interested parties. The brevity of the response period seriously prejudices Vodafone's ability to prepare its response to a level which appropriately addresses the substantial risks to Vodafone's business and the welfare of its customers as a result of ComReg's proposals in this document.

## Introduction

Vodafone's response to this consultation can be categorized under the following headings;

- Observations on the legality of ComReg's proposals to auction spectrum and other associated issues
- Comments on the options proposed by ComReg to date, both in 08/57 and in this current consultation 09/14.
- ComReg's failure to adequately consider alternative proposals.
- The level of demand for Spectrum in the 900Mhz band.
- The optimum means of achieving ComReg's Regulatory Objectives in relation to Spectrum.
- Comments on the proposed MVNO access conditions associated with the new licences.
- Comments on the proposed future licensing arrangements for the 1800 MHz band

In common with Vodafone's response to 08/57, we set out in this response to consultation 09\14 why we believe that ComReg is profoundly mistaken in considering any spectrum allocation proposal which risks serious disruption to the service of potentially millions of GSM customers and without any credible countervailing benefit. We have set out two alternative proposals which we believe are more optimal than those set out by ComReg in either this consultation 09\15 or the pervious consultation 08/57. As will be shown, they allow ComReg fulfil its specified objectives in relation to the 900Mhz band without the substantial risk inherent in ComReg's own proposals.

## ***Legality of ComReg’s proposals to auction spectrum and associated issues***

### **Introduction**

Vodafone submits that aspects of the process to date, and the proposals put forward by ComReg in relation to the future use of the 900MHz spectrum are contrary to law and accordingly require substantial revision by ComReg prior to the making of any final decision on the use of the 900 MHz spectrum. Specifically, Vodafone submits that ComReg has acted impermissibly in the following respects: it has failed to indicate its intention to roll over Vodafone’s GSM licence until the expiry of the 3G licence despite the representation to Vodafone and other licence holders that it would do so on a demonstrable need basis; it has failed to address adequately the position of the existing 900 MHz licence holders; and it has failed to put forward a factual basis for its conclusion that there are viable options open to existing licence holders who do not obtain adequate or any 900MHz spectrum in the course of an auction process. Each of those breaches will be dealt with below. Having regard to the legal infirmities in the process, Vodafone calls upon to ComReg to recommence its consultation process and/or adopt the proposals made by Vodafone [in response to question 17 in our submission to ComReg consultation document 08/57] set out below.

### **Representation made in information memorandum**

In the instant case, the representation which Vodafone contends precludes ComReg from auctioning the entirety of the 900MHz spectrum derives from the Information Memorandum in respect of the four licences to provide 3G services in Ireland, published in December 2001 (Document No. ODTR01/96) (“the Memorandum”).

This document was published to provide information to all interested parties about the licensing process. In a footnote to the first sentence of the Memorandum it is stated that the Memorandum is for information purposes only and does not form part of any formal tender process. It is further stated that it is without prejudice to the legal position of the Director or her rights and duties under relevant legislation. The duration of the licences is for twenty years and the licences in question expire in 2021. Vodafone applied for the licences and obtained one. As well as four 3G mobile licences being offered, additional spectrum in the 900 MHz and/or 1800 MHz bands was offered to new market entrants and additional 3G and 900 MHz spectrum to the A licence.

The Memorandum demonstrates, at para. 4.1, the interlinked nature of 2G and 3G licences. It states “*in order to achieve a fair level of competition with the incumbent operators, additional spectrum in the 900 MHz and 1800 MHz bands will also be made available on the basis of demonstrable need, to successful applicants who are new market entrants*”. Thus, ComReg accepts that, in order to operate effectively, it is necessary to have spectrum in the current GSM bands in addition to the 2.1 GHz band.

Under paragraph 4.2 entitled “*Licence Conditions*” it is provided that the wireless telegraphy licences will continue to be renewable on an annual basis, although the Director reserves the right to review the arrangement. It is further stated that continued availability of existing spectrum assignments in the 900 MHz and 1800 MHz bands to mobile telecommunications licensees will be

reviewed three years prior to licence expiry. Retention of such spectrum will be on a demonstrable need basis until the end date of the 3G licences.

In the submission of Vodafone, as set out in its previous submission of 30 September, 2008, the position is quite clear. A representation was unambiguously made in the Memorandum. It should be emphasised that the representation does not affect the expiry date of the licences, which is clearly 2011 in the case of Vodafone. Rather, it goes to the extension of those licences past the expiry of the fixed period.

The law on legitimate expectations in Ireland is well established. In the decision of *Lett & Company Limited v. Wexford Borough Corporation* [2007] IEHC 195 Clarke J referred to the well established test deriving from *Glencar Exploration v. Mayo County Council* [2002] 1 IR 84. In that case, Fennelly J noted that in order to succeed in a claim based on a failure of a public authority to respect legitimate expectations, it is necessary to establish three matters – first, the public authority must have made a statement or adopted a position amounting to a promise or representation as how it will act in respect of an identifiable area of its activity; second, the representation must be addressed, either directly or indirectly, to an identifiable person or group of persons such that, inter alia, the person or group have acted on faith of the representation; third, it must be such as to create an expectation reasonably entertained by the person or group that the public authority will abide by the representation to the extent that it would be unjust to permit the public authority to resile from it.

Further, in *Daly v. Minister for the Marine* [2001] 3 IR 513 Fennelly J observed that it must be established that it would be unfair, discriminatory or unjust to permit the body exercising a power to change a policy or a set of existing rules or depart from an undertaking or promise without taking account of legitimate expectations created by them.

In the instant case, as set out above, the first test is met. A representation was made which indicated how ComReg would act in an identifiable area of its activity, i.e. an extension of existing licences. The second test is also met. The representation was conveyed directly to a group of persons, i.e. all those persons potentially interested in the 3G licence. Vodafone belongs to that category of persons and indeed subsequently applied for, and obtained, a licence. Vodafone acted on faith of the representations. The actions taken by Vodafone on foot of the representation are clearly set out in pgs. 10 – 12 of Vodafone’s response of 30 September, 2008 (“the September Response”). As set out therein, the 3G licence bid was developed on the basis of being able to operate an integrated 2G/3G network to provide mobile communication services to Vodafone’s customers up until the termination date of the 3G licence. That is clear from the text of Vodafone’s 3G licence bid application document. Vodafone made it clear in the 3G licence application that it relied on access to a 900 MHz spectrum beyond the initial expiry date of the existing licence in 2011. ComReg were aware of this and awarded Vodafone a licence on this basis.

Further, the licence as awarded makes clear the inter-relationship between the 2G and 3G licences. At part 5 of the Schedule, the obligations in respect of the grade of services to end users are in respect of both 2G and 3G. At part 6 of the Schedule, the obligation to provide national roaming exists where an operator is licensed under 3G and 900/1800 MHz bands i.e. 2G bands. Thus ComReg clearly proceeds on the basis that a holder of a 3G licence will also hold a 2G licence. This is entirely consistent with its representation in the Memorandum.

Third, the representation created an expectation that was reasonably entertained by Vodafone that ComReg would abide by the representation, such that it would be unjust to permit ComReg to resile from it. Since the date of the Memorandum, no statements have been issued by ComReg seeking to withdraw the representation. The first intimation given to the holders of the GSM

licences that the licences would not be rolled over on the basis of demonstrable need was the consultation paper on liberalising the use of the 900 MHz and 1800 MHz spectrum bands of 17 July, 2008, Document No 08/57 (“08/57”). Regrettably, that document did not even refer to the Representation made in the Memorandum. That impediment to ComReg’s proposed course of action was only addressed by ComReg in its Response to consultation 08/57 and further consultation paper of 10<sup>th</sup> March 2009, Document No. 09/14 (“09/14”) when Vodafone – and the other licensees – raised the issue of the Representation.

The necessary unfairness referred to by *Daly v. Minister for Marine* is manifestly obvious in the particular market under consideration. As set out in Vodafone’s Response to 08/57 of 30 September 2008 (“the September 2008 response”), the mobile market requires an exceptionally high degree of capital expenditure in order to permit an operator to provide services to consumers which both meet the regulatory requirements and Vodafone’s own high level of service standard. As ComReg is aware, Vodafone has invested many hundreds of millions of euros in providing mobile infrastructure in order to ensure, not just adequate coverage, but coverage of an exceptionally high nature. In an industry such as this, ComReg must be extremely careful in all statements made to the industry where it knows that expenditure is being incurred on an ongoing basis in relation to the necessary infrastructure. Vodafone was entitled to, and did, rely on the representation in respect of the extensions of its licence. ComReg cannot now resile from those representations.

In summary, having regard to established legal principles, ComReg cannot depart from a representation made which meets the criteria necessary to establish a legitimate expectation.

In 09/14, ComReg addresses the issue of the representation for the first time. It notes that each of the existing 2G licensees stated that it was their belief that they would retain their existing 900 MHz and 1800 MHz spectrum assignments beyond the expiry of their current licences, based on the Memorandum. ComReg sets out its response in this respect and Vodafone will indicate its response to each of the points raised in turn.

First, ComReg seeks to make the point that there is no ambiguity about the expiration of the GSM 900 MHz licences. It refers to the terms of the licences, the regulations under which the licences were issued and the disclosure by the GSM licensees regarding expiry of their respective GSM licences. No issue is taken by Vodafone with that point. Vodafone’s licence clearly acknowledges that it will expire on 15 May 2011. Equally the relevant regulations, in particular S.I. No. 468/1997, indicate that a licence granted or renewed on or after 16 May, 2010 shall expire on 15 May, 2011. However, the basis of Vodafone’s contention that ComReg is bound by the Representation goes to the period after the expiry of the licences and not the period of the licences.

Second, ComReg seeks to limit the nature of the Representation by reference to the disclaimer in the Memorandum. It further states that the Director’s statement was not incorporated into its subsequent 3G tender document, or GSM regulations. The disclaimer referred to by ComReg is that which has been stated above. Vodafone does not consider that this affects the legal nature of the Representation made, having regard to the fact that the rights of the Director under the relevant legislation were at all times to ensure that the licences granted shall expire on 15 May, 2011. As set out above, Vodafone does not take issue with this fact. Vodafone is not aware of any legislation that prohibits or prevents the extension of the licences on a demonstrable need basis until the expiry of the 3G licences. In relation to ComReg’s point that the statement was not reflected or incorporated by the ODTR into the subsequent tender documents or regulations, that does not obviate the existence of the representation. By their nature, cases based on legitimate expectation will not be referable to matters enshrined in legislation or contractual documents.

Third, ComReg refers to the failure by the prospective applicants to seek clarification. As a basic principle, a decision not to enquire into an unambiguous representation or comment upon same does not render the representation lacking in validity if it otherwise meets the conditions necessary to establish legitimate expectation on the part of the person seeking to rely upon the representation. Equally, ComReg's point about the 2G licences becoming subject to Regulations cannot affect the representation.

Fourth, ComReg refers to the necessity to make new regulations in order to extend the licences. However, that objection appears to have been overtaken by the fact that in document 09/14, ComReg has accepted in principle that licences can be rolled over if necessary and that there is no legal impediment to this being done.

Fifth, reference is made to the obligations of ComReg under the Communications Regulation Act, 2002 and under Regulation 23 of the Framework Regulations, 2003. Vodafone submits that nothing in that legislation either entitles ComReg to depart from its Representation. Further, it submits that nothing in the Representation is contrary to the objectives set out therein. As set out below, permitting existing licensees to retain their licence until the expiry of the 3G licences will not distort or restrict competition, discourage efficient investment, or cut across the effective management of radio frequencies. There is sufficient currently unallocated spectrum in the 900 MHz band which can be auctioned in a competitive award process. An auction in respect of this spectrum will satisfactorily facilitate the achievement of the objective of promoting competition. All persons seeking to use the spectrum on a liberalised basis will be in precisely the same position. This will promote the effective use and management of the radio frequencies. Abiding by the Representation and providing regulatory certainty in respect of same will ensure efficient investment in infrastructure and the promotion of innovation. Permitting licensees to extend their 2G licences till 2021 will mean that both 3G and 2G licences will expire at the same time. This will ensure that consumers will derive maximum benefit in terms of choice, price and quality.

### **Manifest error by ComReg in failing to address the position of the existing licensees**

As set out in the September 2008 Response, ComReg has failed to address the position of the existing licensees. It has ignored entirely the fact that extensive network investment and deployment has already been undertaken by the existing licensees. Article 8 of the Authorisation Directive requires that this network investment be considered, since ComReg is required to encourage efficient use and ensure effective management of radio spectrum. Equally, Recital 22 of the same Directive requires an allocation process that ensures optimum use of those scarce resources, such as spectrum. The existing licensees, including Vodafone, have made substantial long term network investments and are providing communication services of enormous economic value. Vodafone has set out the position in this respect at pgs. 12 – 14 of the September Response. For ComReg to treat the allocation of existing licensees' spectrum as a green field situation is entirely unrelated to the reality of the situation where licensees have used the spectrum allocated to them for (at this stage) 13 years with all of the commensurate investment in infrastructure that this requires.

It is submitted by Vodafone that the proposal to auction the entirety of 900 MHz spectrum is unlawful for the following reasons:

- (a) It is disproportionate to the aim sought to be achieved i.e. the promotion of competition;

- (b) It ignores the totality of the legislative objectives under Section 12 of the Communications Regulation Act 2002 and instead focuses exclusively on one aim only i.e. ensuring there is no restriction or distortion of competition;
- (c) It renders the consultation process nugatory because ComReg has failed to address their mind to the particular situation of the existing licensees and the options proposed in the first round of consultation ignored that situation. It is true that the options proposed in the second round of consultation have acknowledged the “legacy” issues, as described by ComReg, but have done so in an unsatisfactory manner in that same do not provide regulatory certainty and, moreover, limit the proposed extension of the licences to no later than 2015, which has no rational basis, save for the fact that it is the date upon which Meteor’s licence expires. This approach fails entirely to recognise the factual position of Vodafone.
- (d) Any failure to address the situation of the existing licensees, including Vodafone, will constitute a serious and manifest error and will be manifestly irrational and unreasonable. Any such decision, depending on its terms, may be in breach of the licensees’ right to property under Article 40.3 of the Constitution and Article 43 of the Constitution. A licence may, in certain circumstances, be considered to be property (see inter alia, *Minister for the Environment and Local Government & Ors v. Irish Ispat Ltd.* (In voluntary liquidation) & Anor [2004] IEHC 143
- (e) It breaches the requirement to carry out a regulatory impact assessment, which assessment must address the factual position of the licensees.
- (f) It constitutes a failure to take all relevant matters into account.

The majority of these flaws in ComReg’s approach are self-explanatory and do not require any further elaboration. However the obligations in relation to proportionality and consultation are set out below in brief.

### **Proportionality**

In relation to proportionality, the test under Irish law is well accepted. In *Heaney v. Ireland* [1994] 3 IR 593, Costello J indicated that, where a restriction is imposed that warrants overriding a constitutionally protected right, such as the right to property in the instant case, it must relate to concerns substantial and the means chosen must pass a proportionality test. They must (a) be rationally connected to the objective and not be arbitrary, unfair or based on irrational considerations; (b) impair the right as little as possible; and (c) be such that their effects on rights are proportional to the objective.

The obligation of proportionality is, in fact, specifically conferred upon ComReg by Section 12(3) of the 2002 Act, which requires that it must ensure that, in carrying out its radio frequency management function, any measures taken by it are proportionate, having regard to the objective of ensuring the efficient management and use of the radio frequency spectrum. The decision of ComReg, if taken, to ignore the position of existing licensees (a) would be unfair, not rationally connected to the objective of ensuring effective competition (which is only one of a number of objectives to be obtained); (b) would impair the right very significantly if Vodafone were not successful in obtaining whole or part of the spectrum currently available to them; and (c) is, therefore, disproportionate to the objective.

## Consultation

The obligation to carry out a consultation arises, both from the general obligation of fair procedures and the constitutional right to natural justice, but also, specifically, from Regulation 11 of the Authorisation Regulations. This provides, inter alia, that ComReg must, where proposing to issue licences, give due weight to the need to conduct an appropriate consultation. An appropriate consultation is only available where the consultation document addresses all issues. As set out above, ComReg's documents have failed to address the overwhelming issue in question; the position of the existing licensees.

More generally, insofar as ComReg's objections to rollover of existing licences are concerned (in particular at paragraph 4.7 of 09/14), it is clear from the 09/14 consultation that ComReg is concerned about the distortion of competition in the mobile market by conferring a significant advantage on the existing GSM licensees. It asserts that to extend or renew licences would be discriminatory (para. 4.7) and could damage the reputation of Ireland from an investment perspective. It submits that no regulatory impact assessment is required, having regard to the fact that a licence renewal is not a legal possibility and, hence, the possibility of conducting a cost benefit type analysis would not be relevant.

Taking the last point first, it is clear from that very document that the extension of the licences is, indeed, a legal possibility, albeit one that would require the consent of the Minister. In those circumstances, it is difficult to understand this as a justification for failing to carry out a regulatory impact assessment.

In relation to the suggestion that a rollover or extension of the licences would favour the licensees and would be discriminatory, fails to recognise the factual position of the licensees, as set out before. Discrimination arises where persons in similarly situated positions are treated differently. A licensee who has benefited from a licence for 15 years and has made the necessary investment in infrastructure is not in the same position as a person seeking to enter the market. Moreover, the possibility of competition is advanced by the proposals put by Vodafone.

## **Manifest error of appreciation in assessing consequences for an operator of not obtaining a 900 MHz licence**

In its September Response, Vodafone set out, in some considerable detail, the draconian consequences it would have for its business, should it fail to obtain, either any 900 MHz spectrum, or sufficient 900 MHz spectrum. That is ultimately a matter within Vodafone's particular knowledge, given its business plan and is a matter which ComReg is entitled to accept, unless it seeks to test that proposition by an examination of relevant source materials. ComReg has failed to test the proposition, but rather has rejected it without a sustainable basis for its conclusion.

At paragraph 4.3 of 09/14, it concludes that, if an existing 2G licensee did not obtain 900 MHz spectrum in a competition, it would not be precluded from continuing to provide 2G services. Vodafone specifically stated that it would need at least four years to migrate to MVNO or roaming agreements or to adapt the use of the 1800 MHz spectrum. However, ComReg simply indicate that it is proposing to hold competitions in 2009, two years before the expiry of the GSM 900 licences in 2011. It further states that licensees have had long term notice about the issue of the expiry of licensed rights.

However, it ignores the fact that Vodafone, apparently along with other operators, have proceeded on the basis of the Representation made that licences would be extended to match the duration of the 3G licences. Thus, in a summary passage, ComReg concludes that there are other viable options, either singly or operating in combination, for existing 2G licensees to provide services to their customers. ComReg has failed to indicate why it considers Vodafone is incorrect in its summation that there are no viable business options to it, should it lose its current 900 MHz spectrum assignment. ComReg has, therefore, manifestly failed in its factual appreciation and no decision can be taken on this basis.

The remainder of this submission is without prejudice to the points raised above as to the legality of ComReg's proposed actions. Vodafone wishes to make it clear that where we propose alternative options to those set out by ComReg, or comment on the ComReg proposals, or refer to the choices available to ComReg in respect of the liberalisation of the 900 Mhz spectrum band, we are doing so without prejudice to Vodafone's primary contention as set out above that (a) ComReg is obliged to roll-over Vodafone's licence until 2021 and (b) that the proposal to auction the entirety of 900 MHz spectrum is unlawful. However Vodafone considers it important to participate fully in the consultation process insofar as it can do so given the constraints due to lack of information provided by ComReg and therefore has responded as fully as possible in the process.

The legal issues set out above raise issues of particular concern. However they do not constitute the entirety of Vodafone's concerns about the legality of ComReg's actions to date. Further points about the legality of ComReg's approach, and the legal framework governing same are set out below. Vodafone also reserves the right to make additional submissions and raise additional points, either in this consultation process or in any other forum.

Insofar as Vodafone is required by the terms of the consultation process to indicate its preference for options suggested by ComReg, Vodafone wishes to make it clear that any preferences indicated do not constitute an approval or acceptance of the legality of those proposals and it reserves the right to challenge a decision to impose either Option A or B should same be adopted by ComReg.

### ***900 MHz Licensing Options Proposed by ComReg in 08\57***

In consultation document 08/57, Vodafone identified a number of serious flaws associated with Licensing Options A, B and C on the basis that they run contrary to ComReg's regulatory objectives under the 2002 Communications Regulation Act. These deficiencies centre on the following aspects of ComReg's proposals;

- The absence of a rationale for holding 3 separate licence competitions and the adverse impact this feature would have on bidding options, regulatory certainty and the management of possible spectrum loss. (Option A)
- The fact that Meteor's block (C2) which is held until mid 2015 introduces a fundamental asymmetry of the value of the spectrum between likely applicants that precludes a level bidding playing field). (Option A, Option B, Option C)
- The fact that non-standard block sizes lots C1 (2.8 MHz) and C2 (2.2 MHz) pose unacceptable risks of some 900 MHz spectrum going unallocated or being inefficiently underutilised for an extended period. (Option A, Option B, Option C)

Option C while having all of the problems associated with Option B, has its own specific issues related to the reservation of spectrum for new entrants. By reserving one block solely for new entrants has the potential to distort competition in the mobile market. Reserving two (2) blocks has a further serious adverse effect on the market as it effectively guarantees that one of the existing licensees would obtain a spectrum allocation significantly reduced from their current licence for 2 X 7.2 MHz.

In 08\57, Vodafone demonstrated that none of the benefits cited by ComReg for adoption of any of its three licensing options are unique to ComReg's options. Increased competition and the use of currently unallocated 900 MHz spectrum use can equally be provided by alternative licensing methods. Critically, the alternative options proposed by Vodafone ensure ComReg's regulatory objectives are more efficiently achieved while at the same time avoiding the substantial risks of disruption to consumers.

Vodafone acknowledges that ComReg has taken some of these concerns into account when framing the two new options proposed by ComReg in document 09/14. However, Vodafone still believes that both of the new options are sub-optimal approaches in regard to the efficient use of spectrum and the terms of fulfilling ComReg's regulatory objectives. The basis for our position is given in detail below.

#### **ComReg Option 1**

Vodafone acknowledges that this proposed option is in essence an improved version of Licensing Option B as set out in ComReg's initial consultation document. While still containing many of the deficiencies associated with Option B (particularly spectrum value asymmetry), the proposal for a single early award process does at least provide a degree of regulatory certainty to existing licensees and other stakeholders at an early stage. The proposal to require all existing 900 MHz licensees to enter into a Memorandum of Understanding to co-operate with other licensees on the

re-alignment of frequency assignments to facilitate optimal spectrum use is also desirable in principle.

ComReg acknowledges that a key disadvantage of Option 1 is that it would leave existing licensees open to the possibility of not obtaining sufficient spectrum to enable them to operate both a 2G and a new technology network simultaneously. More worryingly, ComReg does not refer to the real possibility that one or more existing licensees may not obtain any 900 MHz spectrum assignment as a result of a competitive allocation process for the entirety of the band. ComReg has not even broadly quantified the extent of the risks or substantial costs of the disruption that would be caused by such an outturn. There is no analysis of the effect this would have on existing GSM services, and on the deployment of innovative new technologies when current licences expire. This lack of a proper risk assessment alone seriously undermines Option 1.

ComReg states that the key advantages of Option 1 include providing a high degree of regulatory certainty and the promotion of competition as new entrants would have an opportunity to acquire liberalised 900 MHz spectrum. Plainly, these are not unique benefits associated with the implementation of Option 1. Vodafone's recommended alternative proposal in response to 08/54 is in our view a more optimal licensing approach to achieve regulatory and public policy objectives. Our second alternative proposal as set out in the response to question 8 would also be superior to Option 1.

### **ComReg Option 2**

Vodafone welcomes ComReg's acceptance of the key principle, as reflected in the design of Option 2, that there can be compelling public policy grounds for a spectrum allocation approach that makes provision for the extension of existing 900 MHz licences. It is now clear that in the right circumstances, ComReg has the option and will consider extending the current 900MHz licences. This is hardly a surprise to most stakeholders in this process since regulators in other jurisdictions have already extended licences for the current holders of GSM spectrum. It seems hardly logical then that ComReg could consider extending licence terms to 2015 on the basis that serious disruption to GSM services for customers of Vodafone and O2 would result without such an extension and not extend the term beyond 2015 when the customers of Meteor could also be threatened. Since ComReg concedes that current licence terms can be extended in the public interest then this should be done for a reasonable period of time and not restricted to an artificially short period as currently proposed under Option 2.

However Option 2, even with the unrealistically short extension period proposed by ComReg, comes with restrictions and conditions in the proposed terms which are inappropriate and unjustified. Vodafone is gravely concerned that the fees payable in return for the extension appear likely to be set at disproportionate levels unrelated to actual market valuations. This is particularly the case in the context where the liberalisation of any retained spectrum would be precluded. The sole economic welfare rationale for implementing spectrum usage fees is to incentivise efficient use of the specific spectrum. It is perverse that ComReg is proposing in Option 2 to impose annual spectrum fees for extended existing licences determined on the basis of the opportunity cost of this spectrum not being allocated to its highest valued use while simultaneously prohibiting the licensee from switching use of the specific spectrum frequencies to this optimal use. The basis of this argument therefore is clearly untenable and deeply flawed as it would impose an annual spectrum fee based on the opportunity cost of the spectrum not being released into the market on a non-liberalised basis. The result of this approach would be to delay the competitive provision of advanced services to end users without any legitimate justification.

Vodafone considers that ComReg would have to substantially revise Option 2 and address all of its key deficiencies in order to improve its merits in terms of achieving key regulatory and public policy objectives.

### **Failure to give detailed consideration to alternative proposals of respondents**

In 09/14, ComReg declines to give detailed consideration to the alternative 900 MHz licensing options proposed by respondents to the initial consultation document on the basis that they all provide for some form of renewal, extension and/or expansion of existing licences. ComReg concludes that any future spectrum assignment should only be made through an open and transparent frequency assignment process facilitated through some form of auction.

Vodafone contends that a commitment to an open and transparent process does not exclusively require allocation through an auction mechanism. A number of alternative approaches advocated by respondents could equally be regarded as being open and transparent provided that they fulfil the necessary requirements under the EU Communications Regulatory Framework. The experience in other jurisdictions clearly demonstrates this to be the case. ComReg's commitment to allocating 900 MHz spectrum rights of use on an open and transparent basis does not therefore provide any justification for not considering the alternative licensing proposals of respondents merely because they include features requiring the renewal, extension, or other amendment of existing spectrum licences. Indeed if this principle were to be strictly applied without any concessions to public policy considerations, then ComReg's proposed Option 2, which makes provision for existing licensees to potentially obtain extensions to their existing licences to address GSM legacy issues, would also have to be excluded from consideration. This submission is without prejudice to Vodafone's position that ComReg is in any case bound to roll over the licenses until 2021 by virtue of the operator's legitimate expectations, including those of ComReg and reference is made to the legal submissions set out above.

A further reason set out by Comreg not to analyse alternative licensing proposals is that existing licensees do not have spectrum usage rights beyond the explicit term as set out in the licences and the relevant regulations. Frankly, this reason is irrelevant. The issue of whether or not there is a legitimate expectation on the part of existing 900 MHz licensees of renewal of their licences on a demonstrable need basis is entirely separate to the question of whether or not the alternative proposals of consultation respondents are optimal in terms of achieving ComReg's regulatory objectives under the Communications Regulation Act 2002. Indeed, Option 2 of the current consultation clearly reflects the principle that there can be merit in extending the duration of existing licences where there are compelling public policy reasons, such as the need to avoid any possibility of service disruption to users of existing GSM mobile services.

In this document, Vodafone re-iterates its belief that the Vodafone option detailed in 08/57 is the optimal approach to the future treatment of the 900Mhz band. This proposes the extension of the term of the spectrum licences held by each of the current licensees until at least 2021. It further proposes the amendment of spectrum usage rights under these licences to increase the spectrum held under each licence from 2 X 7.2 MHz to 2 X 10 MHz. It proposes ComReg hold a competitive award process only for the single remaining 5 MHz block in which existing licensees would not participate. Vodafone considers this proposed to be optimal as it maximises regulatory certainty, ensures the efficient use of the spectrum, and avoids the serious risks of disruption and resulting substantial costs and risks for the operators and end users of partial or total loss of existing 900 MHz spectrum. It also effectively facilitates an efficient new market entrant, if present, through the holding of a competitive allocation process for the remaining single 5 MHz block in this band.

In response to Question 8 of the current consultation, Vodafone proposes a second alternative approach to the future use of the 900Mhz band which extends the current 7.2Mhz of the current licence holder's allocations to at least 2021. At the same time, it proposes that ComReg would conduct an auction for the entire remaining 900Mhz band. A full description of the process is given below in our detailed response. Vodafone contends that the alternative option proposed here is superior to ComReg's current proposed options where it is concluded that the entire currently unallocated spectrum in the band must be auctioned.

### **Excess demand for spectrum**

ComReg places considerable weight on the statements of respondents (not current licensees) in support of its view that demand for spectrum in the band is likely to exceed supply. Since there is not yet an indication of even the reserve price for a spectrum block, this is hardly a robust or relevant definition of excess demand for spectrum. Its use alone cannot be justified in assessing whether there is a valid public policy case for implementing an auction process for the allocation of the entirety of the spectrum in the 900 MHz band. The proper definition of excess demand is whether it exceeds supply at a reasonable reserve price that incorporates even very conservative estimates of the opportunity costs of its use. Expressions of interest in a consultation context are largely costless for respondents to make, and do not commit respondents in any way to subsequent participation in a spectrum award process.

To rely of these expressions of interest to justify an allocation through some form of auction mechanism is seriously flawed. ComReg must proceed to make its assessment on a separate basis that has full regard to the fulfilment of its regulatory objectives and the EU Regulatory Framework.

### **Achievement of regulatory objectives**

ComReg's objectives under the Communications Regulation Act 2002 in carrying out its function of managing Ireland's radio frequency spectrum are:

- Ensure the efficient management and use of the radio frequency spectrum in Ireland
- Promote competition
- Contribute to the development of the internal market; and
- Promote the interests of users within the Community

Of particular importance is the requirement under the 2002 Act to take all reasonable measures which are aimed at the promotion of competition including:

- Encouraging efficient investment in infrastructure and promoting innovation, and
- Encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources

ComReg must have regard to what approach (auction or non-auction) to licensing of 900 MHz spectrum will best achieve these regulatory objectives before any other consideration. Article 8 of the Framework Directive clearly provides that ComReg must make a *prior* judgement in accordance with as to whether to renew or seek to reallocate spectrum licences which are reaching their termination dates. It is not self-evident that only an auction approach for the entire spectrum band is the optimal way of achieving the regulatory objectives.

ComReg has discretion given its regulatory powers to take an alternative approach where it concludes that there are public policy grounds for not re-allocating existing spectrum licences in an award process while at the same time acting in a manner which is objective, proportionate and transparent. ComReg has not contested this point in the present consultation document. The proposed Licensing Option 2 is the result of a decision that the duration of existing 900 MHz licences can appropriately be extended to take account of the need to address potential disruption to the provision of services to the customers of existing licensees using GSM services.

### **Access conditions**

In the context where 2 MVNOs (Tesco Mobile and eircom Mobile) are already active in the Irish mobile market and where an agreement has been concluded by Vodafone to host a further MVNO (An Post), Vodafone fails to see the relevance or appropriateness of the questions posed by ComReg in this consultation in relation to MVNO access. Given the current market environment where MVNOs are already being facilitated on a commercial basis, the appropriate question to ask is what would be the impact of *additional* MVNO entry on the basis of MVNO licence commitments on competition and investment. Vodafone contends that a full assessment (set out in detail below), indicates that the mobile sector is already characterised by robust competition and that ComReg's concerns regarding alleged high barriers to entry in the mobile sector are without foundation.

In the current consultation, it appears that ComReg concedes that MVNO access obligation cannot legally form part of any licence awarded as a result of an auction process. Instead, ComReg is consulting on pre-commitments to MVNO access which may offered by potentially interested parties as part of the proposed spectrum award process. The problem with this approach is that it introduces confusion in relation to the format of the spectrum allocation method which ComReg is proposing. In a pure auction based format, pre-commitments to certain access conditions cannot form part of the selection process for successful applicants. If it does then ComReg must be considering some form of beauty contest/comparative selection procedure. Failure to make the proposed allocation method clear further undermines an already flawed process. ComReg has not consulted directly on these separate options but seems to swing from one to the other depending on the question asked. This only adds to the set of mixed messages emanating from this consultation and fosters further uncertainty. It is imperative that ComReg clarifies this situation as soon as possible, the failure to do so to date seriously prejudices stakeholder's ability to respond to the consultation effectively.

### **1800 MHz licensing proposals**

Vodafone strongly disagrees with ComReg's current conclusion that an award process for the spectrum in the 1800 MHz band should not be held until around 2013. Given the significant amount of currently unallocated spectrum in this frequency band, it would be entirely unjustified and contrary to the regulatory objective of ensuring the efficient management and use of radio spectrum for this currently unutilised spectrum to remain unassigned for a period of 4-5 years. As set out further below, Vodafone does not accept that the reasons offered by ComReg for not

facilitating an early assignment of the currently unallocated spectrum in the band have any validity. ComReg must reconsider its current proposal and adopt the approach set out by Vodafone in this submission.

### **Summary**

Vodafone believe that the principal problem with ComReg's approach in this issue to date is ComReg's predisposition to an auction of the entire 900MHz band regardless of the risks involved and its failure to seriously consider the possibility that more optimal approaches are possible. ComReg has made no serious attempt to quantify the disruption which might be caused if one more of the current 900MHz licence holders loses some or their entire existing spectrum. ComReg fails equally when it gives no compelling case for the benefits that might accrue to consumers and other stakeholders that warrants the risk of that disruption.

Vodafone believes that its core business and the services it provides to its customers would be seriously prejudiced under the proposals ComReg has made to date. This prejudice occurs in the absence of any demonstrable legal, regulatory or welfare imperative from ComReg. Vodafone would urge ComReg to reconsider its position on this issue and consult further on the options proposed by Vodafone in this response.

### ***Future Licensing of the 1800 MHz Band***

Vodafone does not agree with ComReg's conclusion that holding a competitive award process for 1800 MHz frequencies around 2013 would be optimal. This proposal will lead to a large amount of currently unallocated spectrum in the 1800 MHz band remaining unutilised for a further period of 4 - 5 years despite the potential for its early use for the deployment of innovative new technologies. There is a high opportunity cost associated with this decision in terms of economically valuable use of the 1800 MHz spectrum foregone and it cannot therefore be consistent with ComReg's regulatory objective of ensuring the efficient management and use of the radio spectrum. Vodafone notes that LTE is likely to be deployed much earlier in other European countries, particularly using frequencies in the 2.6 GHz band. The 2.6 GHz band is not available in Ireland for this purpose but the 1800 MHz band represents an excellent alternative. Vodafone is concerned that failure to utilise early the opportunity represented by the available spectrum in the 1800 MHz band will lead Ireland to lag other countries in the introduction of advanced technologies such as LTE for the provision of leading edge mobile broadband services. In this regard Vodafone notes in particular the recent decision of the Finnish telecoms regulator to award 1800 MHz spectrum frequencies to Finland's three largest mobile operators specifically to allow the deployment of LTE technology in the band.

The evidence does not support ComReg's view that LTE equipment will not be widely available for the 1800 MHz band until after 2012. It is Vodafone's understanding that a number of vendors will have equipment supporting deployment of LTE in this band in 2010. Unfortunately due to non-disclosure agreements Vodafone is precluded from sharing vendor's product roadmaps with ComReg, but this information should be available to ComReg on request to the major equipment providers.

Vodafone would submit that LTE can co-exist with GSM and UMTS and ComReg should therefore facilitate its use once it has carried out the necessary analysis to verify this. If other technologies and applications for this band should become available in the medium term then ComReg should be open to accommodating these provided that it can be demonstrated that they can also co-exist with GSM and UMTS. Vodafone considers that this approach would be consistent with the principle of technology neutrality that underpins the EC Draft Liberalisation Decision.

Vodafone rejects ComReg's contention in section 6.4.3 of the consultation document that existing GSM licensees are not using their 1800 MHz spectrum assignments to their fullest extent. The current use of 1800 MHz spectrum primarily to reinforce capacity in areas of high traffic demand is an appropriate and efficient use of this spectrum, and at least in the case of Vodafone, our 1800 MHz spectrum assignment is being used intensively for this purpose.

ComReg has not provided any rationale in the consultation document for its apparent decision not to liberalise the use of at least the 1800 MHz spectrum assignments held by existing licensees in this band. Vodafone considers that there is no basis for not liberalising spectrum usage rights in the 1800 MHz band at the outset upon the entry into force of the EC Liberalisation Decision. A decision to liberalise this spectrum at the outset would be consistent with the principle of facilitating technology neutrality underpinning the Liberalisation Decision and would also provide clarity and additional flexibility to existing licensees in the band.

Vodafone notes ComReg's position as set out in section 6.4.3 that it may hold a competition for access to the 1800 MHz spectrum earlier than 2013 where circumstances warrant. In light of our

comments above ComReg must revisit its proposed approach to the licensing of spectrum in the 1800 MHz band. Vodafone recommends that ComReg should invite applications for the currently unallocated spectrum in this band for use on a fully liberalised basis. Where interest is expressed by undertakings in an allocation of this spectrum at a reasonable minimum spectrum access price, ComReg should formulate and publicly consult on a process for its allocation. If it is the case that indicated demand is less than the supply of currently unallocated spectrum in the 1800 MHz band then Vodafone considers that this spectrum should be granted to the operator(s) expressing interest on application and upon payment of the specified spectrum access fee. However if by a specified deadline date the number of applications and aggregate amount of spectrum sought by interested parties exceeded the available supply of currently unallocated 1800 MHz spectrum then a competitive award process of the type proposed by Vodafone for this spectrum in our submission to ComReg's initial consultation document 08/57 should be implemented to determine the successful applicants. Vodafone considers that this alternative approach is the optimal one in terms of the achievement of ComReg's regulatory objectives and would allow the earliest possible deployment of innovative new technologies for the benefit of consumers and the wider society.

## **Response to Consultation Questions**

### **Q.1. MVNO and the competitive process:**

- a. What would be the impact of MVNOs on competition and investment?**
- b. What in your opinion would be the likely benefits and costs of ComReg inviting MVNO commitments as part of a future 900 MHz spectrum licence competition?**

**In support of your response please refer to current and likely future market conditions and developments.**

### **General**

Vodafone's response in relation to this question is without prejudice to our position, as previously set out in detail in our submission to ComReg consultation document 08/57, that any proposal to automatically include a MVNO access obligation as a basic condition of 900 MHz licences would be in breach of the EU Regulatory Framework and could not therefore be legally implemented. Vodafone notes that ComReg's response to the consultation document did not contest the legal reasoning set out by Vodafone to justify our view.

### **Q1. (a)**

Vodafone must question the validity of this consultation question in the context where MVNOs have been active in the Irish mobile market since 2007, an agreement has been concluded by Vodafone to host a further MVNO (An Post) that is due to enter the market this year, and where the only mobile operator that currently has a MVNO access obligation as a condition of their licence is the only mobile operator not to currently host a MNO on their network. Existing access agreements between MNOs and MVNOs were concluded solely on a commercial basis and in the absence of any regulatory or licence obligations mandating them. ComReg's analysis, and this question seeking stakeholder views on the impact of MVNOs on competition and investment, appears however to disregard the fact that MVNOs are already present, or are due to enter the market in the short term, on the basis of commercial agreements. Given the current market environment where MVNOs are already being facilitated on a commercial basis it would be more appropriate for ComReg to reframe the question so as to ask what would be the impact of *additional* MVNO entry on the basis of MVNO licence commitments on competition and investment.

Vodafone contends that a full assessment, as set out further below, indicates that the mobile sector is already characterised by robust competition and that ComReg's concerns regarding alleged high barriers to entry in the mobile sector are without foundation. Market entry by efficient MVNOs is already fully facilitated by the current market environment and there is therefore no requirement for, or additional benefit from, attaching MVNO access commitments either as a basic condition of all 900 MHz licences or by seeking to secure these from applicants in the course of a competitive licence allocation process. However MVNO access commitments included as

conditions of licences do pose a risk to the extent that they may lead to obligations to grant MVNO access on sub-commercial terms. Entry by inefficient MVNOs on this basis would distort the market as returns earned by all operators would be reduced below the efficient competitive level as a result. This would have adverse consequences for long term sustainable competition and the ability of market players to innovate and invest. Vodafone would submit that there is therefore no compelling public policy rationale for the inclusion of MVNO access obligations in the conditions of 900 MHz licences.

Any conclusions from an exercise to estimate the potential impact of further MVNO market entry will necessarily be speculative in nature. This is because the complexity of the factors driving competition in the market and the difficulties of a conducting a counterfactual analysis (determining how competition and investment would evolve in the absence of MVNO entry on the basis of access regulation/licence conditions so as to compare this with how competition would be likely to develop under circumstances where MVNO entry on this basis occurs) in the context of the inevitable major uncertainties around future technology, demand and other relevant market factors, preclude a straightforward assessment. However Vodafone contends that there are good reasons to support the view that the impact of further MVNO entry specifically on the basis of MVNO access conditions in 900 MHz licences would be marginal at best, and that there is a significant risk that further entry via this route, rather than purely on the basis of commercial agreement as has occurred to date, would be detrimental to investment, innovation, and therefore consumer welfare in the longer term.

In the first instance it is not clear that there is any significant unsatisfied demand for market entry on commercial terms by prospective MVNOs under the current market structure. As previously highlighted 3 MVNO agreements have already been concluded with MNOs on a commercial basis, of which 2 are now in the market, and with another due to begin providing services later this year. It is also highly relevant that despite a MVNO access obligation being in place as a condition of the 3G 'A' licence held by '3' in the 2.1 GHz band since 2001, no MVNO access agreement has been concluded on the basis of the condition in that licence. It is reasonable to conclude that if there were strong demand from undertakings for MVNO access, particularly through access conditions included in a licence, then an agreement to host at least one MVNO agreement on '3's network would have been concluded. In addition no evidence has been adduced by ComReg of any denial of access by MNOs to efficient undertakings seeking to enter the market on commercial terms via the MVNO route.

As demand for market entry as a MVNO on existing MNO's networks has been successfully accommodated on the basis of commercial negotiations, and the MVNO access obligation included as a commitment in '3's 3G licence has not been availed of by any MVNO, there is currently no absolute barrier to market entry by prospective MVNOs on commercial terms and it is unclear that there is any demand for entry by efficient MVNOs that is not already being facilitated.

In addition to the lack of any significant barriers to market entry of MVNOs on commercial terms, Vodafone contends that there is also no competition problem in the mobile retail market that would justify the approach of including MVNO access commitments in 900 MHz licences as proposed by ComReg. The high intensity of competition in the market is indicated not only by the number of competitors (4 MNOs and 2 MVNOs, with a further MVNO due to enter the market later this year) but particularly by the evolution of mobile revenues and the prices of mobile services. While average revenue per mobile user has declined by 7.2% over the last year, minutes of use and SMS and data volumes have continued to grow strongly, consistent with the existence of robust competition in the market.

Vodafone notes that ComReg, in its Annual Review for 2008 (ComReg document CP53) recognised that competition continued to grow strongly in the mobile sector last year. Furthermore, the analysis of mobile user baskets set out in ComReg's Quarterly Key Data reports show that the prices of mobile services for Irish users compare well with those of other European comparator countries. Indeed the comparison shows that prices for various usage profiles in Ireland have been consistently at or below the European average. Given the high level of competition currently observed in the mobile market, it is reasonable to assume that the incremental effect on competition and investment of further entry by MVNOs is likely to be modest at best. In addition, the high intensity of competition will tend to limit the market opportunity for many MVNO business models, thereby reducing the attractiveness of further market entry, at least on commercial terms. In the context of the competitive mobile market, and the absence of high barriers to efficient MVNO entry as previously outlined, there is no compelling public policy rationale for the inclusion of 'voluntary' MVNO access conditions through inviting commitments in 900 MHz licences on the vague terms set out by ComReg.

#### **Q1. (b)**

While any benefits from inviting licence commitments as part of a future 900 MHz spectrum licence competition are likely to be marginal at best given the current market conditions outlined above, the costs and likely risks of this proposal would be substantial. The major cost of this proposal is that it would compromise the objective of ensuring the efficient allocation of 900 MHz spectrum in the context where a competitive spectrum award process for the spectrum were held. Vodafone notes that ComReg's preliminary conclusion in the initial consultation document was that an auction approach to the allocation of the spectrum in the 900 MHz band should be used. Certain statements of ComReg in the present consultation indicate that this position has been maintained. For example in section 4.3, page 21, of the current consultation ComReg has stated that:

*“Any competition mechanism would be designed so as to provide the greatest opportunity for those participants who most valued the spectrum to obtain it.”*

As this is the key advantage of a pure auction based approach (eg. simultaneous multiple round ascending auction, second price sealed bid auction etc.) this implies that an auction methodology, without comparative selection/beauty contest features would be used where an award process was held. However the proposal to invite MVNO commitments as part of a future 900 MHz spectrum licence competition is not consistent with the allocation of spectrum to those undertakings that value the 900 MHz spectrum the most being ComReg's overriding objective. The inclusion of MVNO commitments into the licence award process would introduce elements of a beauty contest into the determination of the successful applicants for 900 MHz spectrum usage rights, and as a result it would not necessarily be the case that applicants who valued the spectrum most highly (as established by monetary amounts bid) would obtain spectrum licences.

If a MVNO licence commitment were to be a relevant factor in determining successful licence applicants then it would have to be assigned some weight in the spectrum assignment process. This would impose drawbacks in terms of increased complexity and reduced transparency as applicant's bids would be assessed against more than one criterion. The decisions of applicants bidding for spectrum in the band would be seriously complicated and the prospects of an efficient outcome of the spectrum allocation process would consequently be greatly reduced. ComReg has not provided any detailed proposals on the format of the proposed award process, but Vodafone does not see how the serious problems of a hybrid auction/beauty contest approach arising from the proposed 'voluntary' MVNO licence commitments could be practically addressed so as to ensure an efficient spectrum award outcome.

A further issue with the proposal to incorporate MVNO commitments in the determination of the outcome of a 900 MHz spectrum assignment process relates directly to the fact that a number of MVNO agreements have already been concluded on commercial terms, but not by all the existing mobile operators in the market. It is unclear on the basis of ComReg's current proposal whether the conclusion of these existing agreements would be regarded as the fulfilment of a MVNO commitment for the purposes of a 900 MHz spectrum award process. It would be entirely unjustifiable if MVNO commitments were to be relevant factors in the determination of the outcome of a 900 MHz spectrum award process but credit were not given to the relevant operators on this criterion for the conclusion of existing agreements.

If MVNO commitments were entirely voluntary, and had no formal role as a factor in determining the outcome of a spectrum award process, then the problems previously identified would not arise. However Vodafone notes that it is open to any applicant to make such commitments at any stage without any formal provision having to be made as part of a future 900 MHz licence competition.

As the MVNO licence commitments proposed by ComReg appear to involve their inclusion as a factor in the determination of successful 900 MHz licence applicants, for the reasons set out above Vodafone urges ComReg to omit such provisions from any auction approach to the award of spectrum in the 900 MHz band.

Vodafone must emphasise that even in the hypothetical case where the mobile retail market was not effectively competitive and there were high barriers to entry for MVNOs, the appropriate means to address this would be through market analysis and the imposition of regulatory access remedies upon one or more operators found to have a position of significant market power (SMP) rather than the inclusion of MVNO access commitments in licences. Even if the latter approach were not in breach of the EU Regulatory Framework, MVNO commitments in 900 MHz licences would represent unnecessary and disproportionate over-regulation of the market where SMP access obligations were already being implemented.

Vodafone must emphasise that even if ComReg considers that entry of additional MVNOs through MVNO access commitments in 900 MHz licences would further increase the already robust competition observed in the market, it is not its role to micro-manage competition and the market structure where competition is already effective and there is no competition problem in the market. This is particularly the case when MVNO agreements have already been concluded on commercial terms.

For the reasons outlined above, the proposal to invite MVNO licence commitments in a future 900 MHz spectrum award process is in Vodafone's view disproportionate, unjustified, and does not in any way advance the achievement of ComReg's objectives as set out under the EU framework and the Communications Regulation Act 2002.

**Q2. MVNO licence commitments:**

- a. **What should be the minimum services encompassed by MVNO licence commitments?**
- b. **Should any services be excluded or should this be left solely to normal commercial agreement?**
- c. **How might MVNO licence commitments be enforced? What criteria, processes and timelines might apply?**

For the reasons set out in the response to question 1 Vodafone considers that the inclusion of MVNO licence commitments as a basic condition of licences could not be legally implemented and that the inclusion of such commitments as part of a future 900 MHz licence competition would be neither appropriate nor justified. Vodafone does not therefore believe that comment on the details of any proposed MVNO licence commitments is warranted.

**Q3. MVNO Wholesale Pricing:**

- a. **Should wholesale pricing considerations form part of any discussion on MVNO commitments?**
- b. **What factors should form the basis of any wholesale pricing structure in the event that MVNO licence commitments are included in any future 900 MHz spectrum licences? Please support your response with the reasoning for considering any such factors.**

For the reasons set out in the response to question 1 Vodafone considers that the inclusion of MVNO licence commitments as a basic condition of licences could not be legally implemented and that the inclusion of such commitments as part of a future 900 MHz licence competition would be neither appropriate nor justified. Vodafone does not therefore believe that comment on the details of any MVNO wholesale pricing elements of proposed MVNO licence commitments is warranted.

**Q4. MVNO Technical Issues:**

- a. **Are there any technical or practical constraints to the inclusion of MVNO commitments within future 900 MHz licences in a liberalised setting? Please provide reasons for your view.**

The major problem with this proposal is that it would compromise the objective of ensuring the efficient allocation of 900 MHz spectrum in the context where a competitive award process for the assignment of the spectrum were held. If a MVNO licence commitment were to be a relevant factor in determining successful licence applicants then it would have to be assigned some weight in the spectrum assignment process. This would introduce shortcomings in terms of increased complexity and reduced transparency as applicant's bids would have to be assessed against more than one criterion. The decisions of applicants bidding for spectrum in the band would be seriously complicated and the prospects of an efficient outcome of the spectrum allocation process would consequently be greatly reduced. ComReg has not provided any detailed proposals on the format of the proposed award process, but Vodafone does not see how the serious problems of a hybrid auction/beauty contest approach arising from the proposed 'voluntary' MVNO licence commitments could be practically addressed so as to ensure an efficient spectrum award outcome.

**Q5. Do you believe that the Options for the release of spectrum in the 900 MHz band set out in Consultation Document 08/57 (Options A, B and C) should be further considered by ComReg? If yes, please provide detailed supporting arguments with your answer.**

No. The proposed options to auction new licences for all of the spectrum in the 900 MHz band as set out in consultation document 08/57 are in Vodafone's view unjustified, disproportionate, unnecessary and contrary to ComReg's regulatory objectives under the 2002 Communications Regulation Act. Vodafone therefore agrees with ComReg's conclusion that these three licensing options should be excluded from further consideration.

### **900 MHz Licensing Options Previously Proposed by ComReg**

As Vodafone set out in our submission to ComReg consultation document 08/57, there are serious flaws associated with the originally proposed Licensing Options A, B and C due to the fact that existing licences in the 900 MHz band have differing termination dates and that the licence blocks that ComReg proposes to auction are not aligned with existing licensee's spectrum holdings. As ComReg's initial licensing proposals would lead to different spectrum block licences coming available for allocation at different times, with differing licence durations and differing spectrum block sizes (as in the case of proposed sub-blocks C1 and C2 relative to the other blocks under Option A), the proposed block licences would be highly imperfect substitutes for one another. The non-homogeneous nature of the proposed spectrum blocks would greatly complicate the decisions of bidders in a competitive award process and, at least in the case of some existing licensees, would greatly restrict the options available to obtain the amount of spectrum necessary to sustain unaffected provision of existing services to customers while also supporting innovative new services. The various proposals to auction all spectrum in the 900 MHz band would therefore limit the probability of the spectrum being allocated efficiently. While this problem is common to all three of the original licensing options proposed by ComReg, it is particularly serious in the case of Option A owing to features specific to that licensing proposal.

Vodafone pointed out 3 key problems associated with the original Licensing Option A:

1. The absence of a rationale for holding 3 separate licence competitions over time for all spectrum in the 900 MHz band and the adverse impact this feature would have on bidding options, the regulatory certainty required for efficient investment, and the time available for existing licensees to mitigate the impact of any loss of 900 MHz spectrum as a result of the award process.
2. The non-standard block sizes of proposed spectrum lots C1 (2.8 MHz) and C2 (2.2 MHz) reduce the likelihood of contiguous 2 X 10 MHz blocks being obtained by existing licensees, and the fact that block C2 is to be held by Meteor under its licence until mid 2015 introduces a fundamental asymmetry between the positions of likely applicants that precludes a level playing field between bidders in the proposed licence award process.
3. The non-standard block sizes of proposed spectrum lots C1 (2.8 MHz) and C2 (2.2 MHz) are also sub-optimal with respect to maximising technical efficiency in the use

of the spectrum and pose unacceptable risks of some 900 MHz spectrum going unallocated or being inefficiently underutilised for an extended period.

Vodafone also identified in our previous submission the serious deficiencies of licensing Options B and C arising both from the non-homogeneous nature of the spectrum blocks to be auctioned (in terms of their differing termination dates and timing of availability) and from the lack of alignment between the licence blocks that ComReg proposed to be auctioned and existing licensee's 900 MHz spectrum rights of use. With regard to Licensing Option B, the particular problems identified by Vodafone included:

1. The status of the proposed Block C, to which an existing licensee will retain usage rights for 2.2 MHz of the 5 MHz block until mid 2015, would introduce a serious and fundamental asymmetry between the positions of likely bidders, in particular the existing 900 MHz licensees, in a competitive award process. This precludes a level playing field between bidders in a competitive licence award process.
2. There is a serious risk of technical inefficiency in the use of spectrum arising from the inability of an operator other than Meteor to fully and efficiently utilise Block C until 2015.

Option C, essentially a variant of Option B, shares all the deficiencies associated with that latter licensing option. However Option C is inferior to Option B as its additional feature of reserving one to two blocks of spectrum are entirely without merit and risk creating serious distortions if implemented in a competitive spectrum award process. In particular Vodafone identified that Option C:

1. Where 1 block would be reserved, would not improve on Option B in terms of promoting competition except that it would allow a new entrant to obtain access to a specific spectrum block on artificially favourable terms (given the inability of existing licensees to make bids for the block) which would confer an artificial advantage on an entity solely by virtue of being a new entrant. This would distort competition in the mobile market.
2. Where 2 blocks would be reserved, would have a further serious adverse effect on the market as it would effectively guarantee that one of the existing licensees would obtain a spectrum allocation (2X5 MHz) significantly reduced from their current licence for 2 X 7.2 MHz and would also raise the general probability of existing licensees being unsuccessful in a spectrum award competition.

Vodafone further emphasised that none of the benefits cited by ComReg for adoption of any of the three licensing options set out by ComReg in consultation document 08/57 are unique benefits associated with these options. The benefits of increased competition and the making available of currently unallocated 900 MHz spectrum for use can equally be provided by alternative licensing options not considered in consultation document 08/57 and set out in Vodafone's response to this initial consultation. These alternative options better allow ComReg's regulatory objectives to be achieved while avoiding the substantial risks of disruption in the event of existing licensees being unsuccessful in a competitive award process for the entirety of the 900 MHz spectrum band.

Vodafone acknowledges that ComReg has taken into account many of the serious deficiencies inherent in the design of the 3 licensing options set out in consultation document 08/57 identified by respondents to the original consultation. Vodafone also acknowledges that as a result of the feedback from respondents, ComReg now proposes alternative licensing options. However, as set out in detail in the response to subsequent consultation questions, Vodafone considers that the two new options proposed by ComReg in document 09/14 are both sub-optimal approaches, not only with regard to the efficient use of spectrum, but also in terms of the achievement of ComReg's regulatory objectives as set out under the EC Framework and the 2002 Communications Regulation Act. Vodafone would note that Option 1 as now proposed by ComReg is in many respects largely a modified version of Option B and therefore shares many of the deficiencies previously identified in the design of that originally proposed Option. Vodafone's views in relation to the new licensing options proposed by ComReg are set out fully in the response to question 6.

### **Failure to give detailed consideration to alternative proposals of respondents**

Vodafone is very surprised that ComReg has declined to give detailed consideration to the alternative 900 MHz licensing proposals submitted by consultation respondents on the basis that they all provide for some form of renewal, extension and/or expansion of existing licences in the context where ComReg has concluded that any future spectrum assignment should be made through an open and transparent frequency assignment process. Vodafone contends that ComReg's decision not to consider in full each alternative proposal put forward by respondents is wholly unacceptable and that the reasons set out by ComReg for this omission do not provide any justification for its approach.

In the first instance it is not the case that a commitment to an open and transparent frequency assignment process automatically requires that all spectrum in the 900 MHz band be allocated using an auction mechanism. Indeed alternative approaches to the allocation of frequencies in this band, both those that would assign frequencies using an auction mechanism for only part of the spectrum, or non-auction approaches involving renewal and amendment of existing operator's licences in the band could equally be regarded as being open and transparent methods of assigning 900 MHz spectrum provided that they fulfil the necessary requirements under the EU Communications Regulatory Framework.

Article 14 of the Authorisation Directive states that any amendment to the terms of a licence must be objectively justified and proportionate and that interested parties should be given a reasonable opportunity to express their views on such amendments (a minimum of four weeks for comments). Article 7 of the same Directive also states that any process for the allocation of rights must be open, in that interested parties must be given the opportunity to express their views on the proposal (Article 7.1 (b)). Any decision must be published giving the reasons for the proposed allocation process. Vodafone submits that any process for the assignment of spectrum rights of use that meets these requirements as set out under the Directive fulfils the necessary criteria to be deemed an open and transparent assignment process.

It is notable that there is no obligation for an auction to be held in order to meet the necessary standards of openness and transparency required for a frequency assignment process. ComReg's commitment to allocating 900 MHz spectrum rights of use on an open and transparent basis does not therefore provide any justification for not considering the alternative licensing proposals of respondents merely because they include features requiring the renewal, extension, or other amendment of existing spectrum licences. Indeed if this principle were to be strictly applied without any concessions to public policy considerations, then ComReg's proposed Option 2, which makes

provision for existing licensees to potentially obtain extensions to their existing licences to address GSM legacy issues, would also have to be excluded from consideration.

Vodafone notes that a further reason set out by ComReg for its decision not to analyse each alternative licensing proposal put forward by respondents is that existing 900 MHz and 1800 MHz licensees do not have spectrum usage rights beyond the explicit term of their licences, as set in the licences and the relevant regulations. Vodafone does not see what relevance this point has in ComReg's justification of its approach. The issue of whether or not there is a legitimate expectation on the part of existing 900 MHz licensees of renewal of their licences on a demonstrable need basis, based on previous ComReg statements, is entirely separate to the question of whether or not the alternative proposals of consultation respondents (even where these rely on ComReg using its discretion as conferred under its regulatory powers to renew and/or amend existing licences) are optimal in terms of achieving ComReg's regulatory objectives under the Communications Regulation Act 2002. It is important to note that the proposed Licensing Option 2 as set out in ComReg's current consultation clearly reflects the principle that there can be merit in extending the duration of existing licences where there are compelling public policy reasons, such as the need to avoid any possibility of service disruption to users of existing GSM mobile services, for doing so.

ComReg has, in Vodafone's view, wrongly equated the concept of an open and transparent frequency assignment process with the holding of an auction for the entirety of the 900 MHz spectrum band. Vodafone considers that ComReg has placed undue weight on the statements of respondents to ComReg consultation document 08/57 that are not current licensees in this band in order to conjure up support for its view that demand for spectrum in the 900 MHz band is likely to exceed supply. It is not in question that frequencies in the 900 MHz band are economically valuable given their propagation and other characteristics and that demand would consequently exceed supply if 900 MHz spectrum blocks were to be offered on a first-come first-served basis at a zero price. Vodafone submits that this is not the relevant definition of excess demand for spectrum that can properly be used in assessing whether there is a valid public policy case for implementing an auction process for the allocation of the entirety of the spectrum in the 900 MHz band.

The proper definition of excess demand to be applied in this context is whether demand for the available spectrum exceeds the supply at a reasonable reserve price that incorporates even very conservative estimates of the opportunity costs of its use. The views expressed by the respondents to ComReg consultation document 08/57 that are not licensees in this band cannot be said to provide any support for the claim that demand for 900 MHz spectrum is likely to exceed supply with respect to this correct definition of excess demand for spectrum, that Vodafone has set out, as it is not possible to determine from their responses whether their demand for spectrum is *effective* demand, present at least at a reasonable minimum reserve price. Vodafone notes however that the expressed preference of one of the respondents for a beauty contest to allocate spectrum in the 900 MHz band, rather than the auction based approach that ComReg has concluded should be used, raises legitimate doubt as to whether the demand of that respondent for spectrum would be effective at a reasonable reserve price in a competitive spectrum award situation. Vodafone would also submit that in the case of at least one of the respondents to ComReg's initial consultation document that expressed interest in a 900 MHz licence, there would be reasonable doubts around their financial capacity to participate in an efficient spectrum auction process for this spectrum and/or to fund the necessary ongoing investment required to meet licence obligations.

ComReg must question critically the expressions of interest by respondents to consultation document 08/57 as providing clear evidence of demand for 900 MHz spectrum exceeding supply, particularly with regard to the appropriate definition of excess demand that Vodafone contends to be relevant. As such expressions of interest in a consultation context are largely costless for

respondents to make, and do not commit them in any way to subsequent participation in a spectrum award process, Vodafone would submit that they are not determinative of whether demand for spectrum does in fact exceed supply. Expressions of interest in spectrum from respondents that are not current licensees should not therefore be the critical factor that they appear to be in ComReg's current assessment of the appropriate future licensing arrangements for spectrum in the 900 MHz band. ComReg must proceed to make its assessment on a separate basis that has full regard to the fulfilment of its regulatory objectives and the EU Regulatory Framework.

### **Achievement of regulatory objectives**

ComReg's objectives under the Communications Regulation Act 2002 in carrying out its function of managing Ireland's radio frequency spectrum are:

- Ensure the efficient management and use of the radio frequency spectrum in Ireland
- Promote competition
- Contribute to the development of the internal market; and
- Promote the interests of users within the Community

Of particular importance is the requirement under the 2002 Act to take all reasonable measures which are aimed at the promotion of competition including:

- Encouraging efficient investment in infrastructure and promoting innovation, and
- Encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources

ComReg must have regard to what approach (auction or non-auction) to licensing of 900 MHz spectrum will best achieve these regulatory objectives before any other consideration. Vodafone contends that the EU regulatory framework clearly provides that ComReg and spectrum licensing authorities in other EU member states must make a *prior* judgement in accordance with Article 8 of the Framework Directive as to whether to renew or seek to reallocate spectrum licences which are reaching their termination dates. It is not self-evident that only an auction approach for all of the 900 MHz spectrum band is the optimal way of achieving the identified regulatory objectives. Indeed Vodafone contends that the recommended alternative 900 MHz licensing approach that it has set out in our submission to ComReg consultation document 08/57 is superior to both the original licensing options set out by ComReg, and to those set out in the current consultation document, in terms of achieving the identified regulatory objectives. Vodafone's reasoning in this regard is set out further in response to question 6.

In addition ComReg has discretion given its regulatory powers to take an alternative approach where it concludes that there are public policy grounds for not re-allocating existing spectrum licences in an award process while at the same time acting in a manner which is objective, proportionate and transparent. Vodafone acknowledges ComReg's effective agreement with this point in the present consultation document. Indeed the proposed Licensing Option 2 is the result of a decision that the duration of existing 900 MHz licences can appropriately be extended to take

account of the need to address potential disruption to the provision of services to the customers of existing licensees using GSM services.

There are objective differences between existing users of spectrum (and the benefits they provide to consumers) and any prospective new licence applicants which justify the exercise of ComReg's discretion in determining whether and how to renew or extend existing licences in the 900 MHz band. Vodafone considers that an auction for new licences for the entirety of the spectrum in the 900 MHz band in Ireland in the circumstances where:

- (a) Existing licensees have made substantial long term network investments,
- (b) Licensees are currently providing services of enormous value using this spectrum
- (c) There is unallocated spectrum available in the band to meet potential demand from prospective licence applicants

would clearly be inefficient and thus contrary to the requirements of Article 8 of the Framework Directive.

In the context of the non-binding expressions of interest from those respondents to ComReg's initial consultation document that are not existing licenses in this band, Vodafone contends that it is clearly open to ComReg (whether under Article 14 or 7 of the Authorisation Directive) to consider, among other factors, the likely impact of a new entrant acquiring 900 MHz spectrum for which an existing licensee currently holds the usage rights, including the effect on existing mobile network operators and end users, and conclude on a preliminary basis that an extension of the existing 900 MHz licences is the most efficient use of the spectrum. Such a preliminary conclusion would have to be properly and objectively motivated, which Vodafone contends can readily be achieved in this case. The reasons for this would of course have to be made available in a public consultation so that any interested parties can comment on the proposal and put forward any alternative proposals. If any alternatives were proposed then ComReg would have to consider the approach that would yield the most efficient outcome and act accordingly. However this would not necessarily involve acceding to the alternatives proposed by interested parties (eg. for an auction of the entirety of the 900 MHz band) where this was not the optimal approach with reference to the achievement of ComReg's regulatory objectives. Vodafone contends that there are strong public policy and efficiency grounds for an approach other than those currently set out by ComReg for consideration in the current consultation document.

## **Conclusion**

For the reasons set out above, Vodafone considers that the reasons offered by ComReg for declining to consider in detail each alternative 900 MHz licensing option proposed by respondents are not valid. Vodafone therefore urges ComReg to revisit its analysis and to consider in detail each of the alternative options suggested by respondents, and any new options suggested in this second consultation round, in terms of their merits in achieving ComReg's statutory objectives. This is a more appropriate approach than an analysis restricted on the inadequately supported basis, as currently, that a competitive award process must be held for the entirety of the spectrum in the 900 MHz band.

**Q6. Which of the two Options described above for release of spectrum in the 900 MHz band would you prefer? Please provide supporting arguments with your answer.**

Vodafone must emphasise at the outset our view that the two new proposed Options for the allocation of spectrum in the 900 MHz band are both substantially inferior, from the perspective of achieving statutory regulatory objectives, to the recommended option set out by Vodafone in response to question 17 in our submission to ComReg consultation document 08/57. Our comments in relation to the two new options set out by ComReg are strictly without prejudice to this view.

In summary, Vodafone's recommended option proposes the extension of the term of the spectrum licences held by each of the current licensees until at least 2021, the amendment of the spectrum usage rights under these licences to increase the spectrum held under each licence from 2 X 7.2 MHz to 2 X 10 MHz, appropriate re-alignment of spectrum assignments under each existing licence, and the holding of a competitive award process only for the single remaining 5 MHz block (eg. Block A) in which existing licensees would not participate (due to a 10 MHz per operator spectrum cap). Vodafone continues to consider that this proposed option is optimal as it maximises regulatory certainty, ensures the efficient use of the spectrum, and avoids the serious risks of disruption and resulting substantial costs and risks for the operators and end users of partial or total loss of existing 900 MHz spectrum allocations as outlined in our submission to ComReg document 08/57. Vodafone notes that this option also effectively facilitates an efficient new market entrant, if present, through the holding of a competitive allocation process for the remaining single 5 MHz block in this band.

### **Key uncertainties relating to ComReg's proposed options**

Notwithstanding Vodafone's position on the optimal approach to the future licensing arrangements for spectrum in the 900 MHz frequency band, key elements of ComReg's current licensing proposals remain undecided or uncertain. This prevents Vodafone from giving a fully informed and definitive response to the question of which of the two new options set out by ComReg (in the circumstances where the choice is being inappropriately confined to just these two options) has most merit in terms of achieving the identified regulatory objectives.

With regard to Option 1, the single auction approach, the absence of a decision on the appropriate auction format at this stage and the omission of this key information makes it difficult for Vodafone to make an informed decision and subsequently take a reasoned, rational and conclusive view on the proposal. ComReg's general statements on the nature of the auction format and the outcome it is intended to achieve, moreover, appear to be difficult to reconcile with one another. For example in section 4.3, page 21 of the consultation document, ComReg states:

*“Any competition mechanism would be designed so as to provide the greatest opportunity for those participants who most valued the spectrum to obtain it. Accordingly, full or partial loss of spectrum should only occur if an existing licensee valued the spectrum less than other bidders, or valued the spectrum higher than the winner but lost out due to its bidding strategy...”*

This statement indicates that a pure auction format (for example a simultaneous multi-round ascending auction), with the spectrum allocated to the successful bidder(s) solely on the basis of

their putting the highest value on the spectrum, as reflected in their bids, will be adopted. However in section 9.1, page 65 of the consultation document ComReg states:

*“The precise format of the competition is still to be decided but in line with Section 7, it may be possible for bidders to offer licence commitments for consideration.”*

This latter statement, indicating that ‘voluntary’ licence commitments will play some role in the proposed competitive spectrum allocation process, does not appear to be consistent with ComReg’s previous assurance. The inclusion of voluntary licence commitments (for example regarding MVNO access) as a factor in determining the outcome of a competitive spectrum award process would mean that the process would not have as its sole focus the awarding of the available spectrum to those undertakings that place the highest value on it. Instead it would include elements characteristic of a ‘beauty contest’ approach to the allocation of spectrum usage rights. As this apparent hybrid auction/beauty contest approach to the allocation of 900 MHz spectrum apparently under consideration is not set out in any detail by ComReg (in addition to not indicating the auction format no account is given of how voluntary licence commitments would be incorporated or what weighting they would have in the determination of the outcome of the allocation process), it is not possible to take an informed view and therefore makes it impossible to give a definitive response on the merits of proposed Option 1 at this stage. Vodafone contends that ComReg must clearly set out precise details of the auction format proposed to be used so as to enable respondents to comment on Option 1 on the basis of complete information.

With regard to Option 2, the multi-phased approach, uncertainties in key areas of ComReg’s proposals also mean that it is again not possible for Vodafone to provide our definitive view on the merits of this proposed licensing approach. In particular while ComReg has set out the high level principles that would guide the setting of an up-front price and annual spectrum fees for any extensions that could be granted to the duration of the 900 MHz licences currently held by existing licensees, no details on the methodology to be used have been provided to enable respondents to infer the likely level of the up-front price and revised annual spectrum fees that would apply in these circumstances. A further key point that requires clarification relates to the issue of whether, and to what extent, any up-front price paid for an extension of the duration of an existing 900 MHz licence would be refundable in the event that an existing licensee were to be successful in obtaining spectrum in a competitive award process prior to the extended expiry date. For example, in circumstances where Vodafone were to obtain an extension to its licence for 2 X 7.2 MHz of spectrum until mid 2015 but successfully obtained other spectrum in the band to meet its requirements in a competitive award process prior to the extended date of expiry, and chose to give up early the spectrum on which it had been granted an extension so as to satisfy the 10 MHz per operator spectrum cap, ComReg’s proposals are silent on whether any part of the up-front fee paid would be refundable. Vodafone considers that if no part of the up-front fee were to be refundable to a licensee granted an extension in these circumstances then Option 2 would be particularly flawed. With regard to the key uncertainties in ComReg’s proposed Option 2, Vodafone considers that ComReg must provide complete information in order for respondents to be able to offer their definitive views on these proposals.

### **Assessment of ComReg’s proposed options**

Vodafone must emphasise that as our views on the proposed options are made only on the basis of incomplete information, given the uncertainties around key elements of ComReg’s proposed options as already outlined, they can not be definitive. The absence of full information is a central issue given the high order of magnitude of importance of the commercial decisions that rely on the available information on future spectrum licensing arrangements. Vodafone would seriously

question ComReg's understanding of the necessary requirements for operators to make major investment decisions by consulting on spectrum licensing proposals that omit key information.

### **Option 1**

Vodafone considers that while there are some positive aspects to this proposed option, in essence an improved version of Licensing Option B as set out in ComReg's initial consultation document, it also has many of the serious deficiencies associated with Option B that Vodafone highlighted in our previous submission. Option 1 is therefore substantially inferior to Vodafone's recommended option as already summarised in the response to this consultation question in terms of the optimal attainment of relevant regulatory objectives.

Vodafone agrees with ComReg that Option 1, by proposing a single early spectrum award process, provides the necessary high degree of regulatory certainty to existing licensees and other stakeholders regarding the future of the 900 MHz band at an early stage. The proposal to require all existing 900 MHz licensees to enter into a Memorandum of Understanding to co-operate with other licensees as appropriate on re-alignment of their current licensed frequency assignments to facilitate optimal spectrum use following assignment outcomes from the spectrum competition is also desirable in principle. If properly framed, this element would increase the prospects for efficient spectrum use in the band while also mitigating aggregation risks. Clarity needs to be provided however on the mechanics of how this provision would operate in the context where spectrum usage rights would be allocated to successful applicants for *frequency specific* blocks. Vodafone foresees that there could be serious difficulties in the implementation of any necessary re-alignment of frequency assignments if licences were awarded on the basis of blocks of specific frequencies.

However there are also serious deficiencies with this proposed Option that arise primarily from the non-homogeneous nature of the spectrum blocks, with different lots or parts of lots becoming available for use at different times, and from the lack of alignment of the spectrum usage rights held under the licences of existing 900 MHz licensees with the spectrum blocks proposed to be allocated in a competitive award process. The non-homogeneous nature, from the perspective of most potential licence applicants, of the proposed spectrum blocks would greatly complicate the decisions of bidders in an allocation process. At least in the case of some existing licensees it would also greatly restrict the options available to obtain the amount of spectrum necessary to sustain unaffected provision of existing services to customers while also supporting the timely introduction of innovative new services. This proposal to auction all of the spectrum in the 900 MHz band therefore limits the probability of spectrum being allocated efficiently, notwithstanding the provisions around the Memorandum of Understanding to facilitate re-alignment of spectrum allocations ex-post.

A serious shortcoming of Option 1 arises from its proposed implementation of, effectively, a green field approach to the allocation of spectrum in the 900 MHz frequency band, without regard to the fact that there are existing licensees in this band or to the current configuration of the spectrum usage rights held by these existing licensees. The failure to take appropriate account of the existing assignments of spectrum usage rights, and the implications of this for future 900 MHz spectrum licensing arrangements, has the effect of introducing a fundamental asymmetry between bidders in the proposed competitive award process. This seriously undermines ComReg's claim in section 9.1.3 of the consultation document that a key advantage of Option 1 would be to introduce a level playing field for all parties interested in acquiring liberalised spectrum. Reference is made to the submissions made above in respect of this issue.

The serious asymmetry between bidders arises specifically in the case of proposed Block C as 2.2 MHz of this 5 MHz block currently falls within the spectrum usage rights held under Meteor's existing licence which is not due to expire until mid 2015. It is unlikely that any other existing licensee, or other licence applicant, would place a higher value than Meteor on Block C given that for any other applicant it would represent in effect, until mid 2015, a 2 X 2.8 MHz block of limited value for the deployment of innovative wideband technologies whereas for Meteor obtaining the Block would allow use of the 2 X 5 MHz block in its entirety immediately following the conclusion of the competitive award process. For a bidder other than Meteor to possibly place a higher value than Meteor on Block C would appear to require them to be confident of employing the unallocated 2.8 MHz part of the block in a way that would be at least as valuable as Meteor's immediate use of the full 5 MHz block from the outset. In addition the alternative bidder would have to be undeterred by having to wait as long as six years before obtaining full use of the entirety of Block C. Vodafone would submit that these conditions are highly unlikely to be met, particularly by the other existing licensees.

In effect there is far greater scope for Meteor, by virtue of the late expiry of its existing licence and the location of its spectrum usage rights under its current licence, to obtain a spectrum allocation that is to its advantage than is the case for the other existing licenses under ComReg's current proposals. The spectrum blocks are therefore structured such that they introduce a serious imbalance in the relative position of bidders in the context of the configuration of existing 900 MHz licences. Thus Option 1 precludes a level playing field between all the bidders in the proposed licence award process. Furthermore this option would in its practical effect be discriminatory in terms of the unequal opportunities it would provide to prospective applicants to obtain their desired spectrum assignments in this band.

With regard to technical efficiency, there is a significant risk of inefficient spectrum use associated with the inability of an operator other than Meteor to fully and efficiently utilise Block C until 2015. The risk of a six year period of sub-optimal use of spectrum blocks is a key problem with this licensing option.

In section 9.1.1.1 of the consultation document, ComReg acknowledges that a key disadvantage of Option 1 is that it would leave existing licensees open to the possibility of not obtaining sufficient spectrum to enable them to operate both a 2G and a new technology network simultaneously. However ComReg does not refer to the real possibility that one or more existing licensees may not obtain any 900 MHz spectrum assignment as a result of the proposed competitive allocation process for the entirety of the band. Nor has ComReg even broadly quantified the extent of the risks or substantial costs of the disruption that would be caused were one or more of the existing licensees to fail to obtain the amount of spectrum required to maintain their current GSM services, and allow the deployment of innovative new technologies upon the expiry of their current licences.

In our previous submission to ComReg document 08/57, Vodafone set out in detail the substantial risks and costs of the auction options then set out by ComReg. This assessment has equal relevance for Option 1 as currently set out by ComReg. Vodafone considers that ComReg has inappropriately understated the risks associated with Option 1 in its analysis and that the alleged alternative options set out by ComReg in section 9.1 (such as the claim that existing licensees could continue to effectively provide services using their existing 1800 MHz assignments) do not effectively address these risks of adverse auction outcomes. With regard to the specific proposed alternative of use of existing 1800 MHz assignments to solely or primarily provide 2G services, there is currently no certainty around the continued availability of 1800 MHz spectrum licences to existing 900 MHz licensees beyond the expiry date of the former licences from 2015. It is therefore highly questionable whether there would be a feasible business case for the necessary major investments required to achieve 2G service provision primarily on the basis of use of 1800 MHz

spectrum given the absence of regulatory certainty around availability of spectrum assignments in this band after 2015.

In addition, commercial feasibility issues aside, ComReg has grossly underestimated the lead times that would be required before these necessary investments could be completed. Vodafone has already set out our assessment of the feasibility of this option in our submission to document 08/57. This assessment has highlighted the impracticability of implementing this proposed strategy to address partial or total loss of existing 900 MHz spectrum assignments within the restricted timeframes available to seek to maintain unaffected service provision to mobile customers. Vodafone has similarly previously outlined in our submission to ComReg document 08/57 the insufficiency of the other options set out by ComReg to address partial or total loss of 900 MHz spectrum by existing licensees. Given the costs and risks associated with Option 1 and the insufficiency of the alternative measures that existing licenses could take to address possible adverse outcomes from this licensing option, the superior alternative option previously recommended by Vodafone should instead be consulted upon and implemented by ComReg.

The key advantages of Option 1 as set out by ComReg, of regulatory certainty, and promotion of competition are not unique benefits associated with the implementation of Option 1. These benefits could also be obtained from other licensing options not considered in detail in the present consultation. It is Vodafone's view that there are alternative licensing options that would yield the benefits identified by ComReg for Option 1 while avoiding its deficiencies as already highlighted. Vodafone's already recommended alternative proposal is in our view the optimal licensing approach to achieve regulatory and public policy objectives. Our second alternative proposal as set out in the response to question 8 would also be superior to Option 1.

Vodafone considers that a full assessment of all aspects of Option 1, as set out above, establishes that this licensing option has a number of serious deficiencies that render it inferior to other possible options in terms of the achievement of regulatory and public policy objectives such as ensuring the efficient management and use of radio spectrum, and the avoidance of risks of disruption to the provision of existing services to mobile customers. Option 1 should not therefore be adopted in preference to these alternative options.

## **Option 2**

Vodafone welcomes ComReg's acceptance of the key principle, as reflected in the design of Option 2, that there can be compelling public policy grounds - such as the need to avoid the possibility of disruption of existing GSM services provided to mobile customers of the existing licensees – for a spectrum allocation approach that makes provision for the extension of existing 900 MHz licences. However Vodafone considers that the particular restrictions and conditions in the proposed terms of Option 2 relating to the potential extension of existing licences as set out by ComReg are inappropriate and unjustified. This licensing option as currently formulated therefore has serious serious shortcomings that render it a sub-optimal approach in terms of the achievement of regulatory and public policy objectives. Vodafone contends that Option 2 is substantially inferior to Vodafone's recommended option as already summarised in the response to this consultation in terms of the attainment of these objectives.

The proposed measures in Option 2 to allow applications from existing 900 MHz licensees to obtain extensions to their current licences are positive in principle as, if applications were accepted, they would provide some certainty to existing licensees around the ability to at least continue providing existing GSM services to customers in advance of any spectrum award

process. This would thereby mitigate the considerable risks of disruption, and the resulting substantial costs for existing operators and their customers, in the event that adverse auction outcomes were realised for the former. This would also avoid the possibility of the most disruptive outcome of one or more existing licensees failing to obtain any spectrum in the 900 MHz band for a period of time. An appropriate licence extension provision is therefore objectively justified and proportionate based on the substantial value of the communications services provided by existing licensees to customers in this band and the need to minimise the impact of disruption from adverse auction outcomes. This form of proposal does not however prevent the risks of at least one existing 900 MHz licensee failing to obtain sufficient spectrum for the timely implementation of UMTS 900 refarming.

While the intention to include a provision for extension of existing licences within Option 2 is a favourable aspect of this licensing proposal, the specific details and conditions of this provision as set out by ComReg seriously undermine the potential benefits of this element in achieving ComReg's regulatory and public policy objectives. Vodafone contends the flawed conditions currently attached to this provision are in fact entirely inconsistent with these objectives.

In the first instance the limitation of the duration of any extension, where granted, on Vodafone and O2's existing licences to no later than the expiry of Meteor's licence in mid 2015 is in Vodafone's view wholly misconceived. The limited nature of the extension envisaged, while superior to a failure to provide for any extension of existing licence periods, does not provide the necessary high level of regulatory certainty necessary for existing licensees over the time horizon relevant to carrying out effective medium to longer term business planning and investment activities.

Vodafone is also alarmed by ComReg's proposal to prohibit the liberalisation of existing 900 MHz spectrum usage rights held under existing licences, including any existing spectrum usage rights retained on the basis of an extension of current licences beyond 15 May 2011. The restriction of use of this spectrum to 2G services in Vodafone's view entirely contravenes the spirit of the Draft Amending Directive of the GSM Directive, which proposes the timely removal of the current technology use restrictions in the 900 MHz band and the advent of innovative new products and services delivered by the most advanced technologies to consumers throughout the EU. Vodafone does not accept that the reasons set out by ComReg for contemplating such a proposed restriction on spectrum liberalisation have any validity and we consider that this proposal would clearly hinder the realisation of benefits for end users in a manner entirely contrary to the fulfilment of ComReg's statutory regulatory objectives.

It is the clear intent of the proposed Amending Directive that liberalisation of use of the 900 MHz band to permit the deployment of UMTS technology, and potentially other advanced technologies, is introduced to the fullest extent possible on a pan-European basis. This is essential to enable harmonised provision of advanced communications services such as mobile broadband using this band across Europe, and to facilitate the necessary scale economies (in equipment procurement etc.) that are required to allow provision of these services at competitive prices to consumers. The early and comprehensive implementation of the Amending Directive, when it enters into force, in all EU member states is therefore key to maximising consumer welfare. Liberalisation of the 900 MHz band is far too important an objective to deviate from or qualify, as in the manner currently being proposed by ComReg under Option 2, unless there is objective and robust evidence that this would have adverse competitive effects, or lead to consumer harm under specific circumstances that may prevail in a member state. Vodafone contends that no such evidence has been provided by ComReg to justify the proposed restrictions on 900 MHz spectrum liberalisation in Option 2.

Vodafone does not consider that the fact that respondents to the consultation indicated that there are limited possibilities for use of technologies other than GSM within the existing 900 MHz

spectrum assignments provides any justification for the proposed prohibition on full liberalisation of use of the entire 900 MHz band (both existing and new licences) as set out in licensing Option 2. Liberalising spectrum use where possible to optimise spectrum use and maximise benefits for end users is too important to neglect to introduce it merely where it does not appear likely to be implemented in the near term given the spectrum assignments of existing licensees. It is vital to recognise the value of the principle by formally removing restrictions on use even where the benefits of this are not likely to be realised in the short term.

In addition Vodafone notes that existing licensees require only relatively modest amounts of additional spectrum rights of use beyond their current holdings to enable them both to continue to provide existing services to their GSM customers while also facilitating them in deploying advanced services using UMTS technology in this band (particularly where spectrum sharing between licensees is facilitated). The necessary additional spectrum could be obtained by one or more of the existing licensees at any intermediate stage of the multi-phased approach outlined in Option 2, and it would therefore maximise efficiency for the licensees to have full flexibility regarding the manner of utilisation of their spectrum usage rights over their entire assignment of 900 MHz spectrum. This flexibility is inexplicably not provided for under Option 2 as currently formulated.

Vodafone entirely rejects the claim that liberalisation of the existing GSM licences could distort competition in the mobile market by potentially conferring a significant competitive advantage on the existing GSM licensees that would not be available to a non-GSM mobile operator as grounds for the prohibition on liberalisation of existing 900 MHz licences proposed under Option 2. In the first instance, Vodafone notes that a non-GSM operator would have the same opportunity as all other applicants to bid for the currently unallocated spectrum in the 900 MHz band in 2009 under Option 2 as currently proposed. As this spectrum would be available on a fully liberalised basis from the outset a non-GSM operator would, if successful in the auction, be able to deploy non-GSM technologies such as UMTS in the 900 MHz band at an early stage, and would in fact have an advantage in this respect given that it would not have the issues of continued provision of GSM services to existing customers that are faced by the existing 900 MHz licensees. Vodafone contends that the opportunity for non-GSM operators to participate on an equitable basis in a competitive award process for spectrum usage rights in Blocks A and B under Option 2 means that there is no basis for claims of competitive distortion if the current proposed liberalisation restriction were not in place and all spectrum in the 900 MHz band (including existing licences) was liberalised from the outset. This is particularly the case given that under Option 2 as currently framed, any extension of spectrum assignments held by existing licensees would not be granted as a free benefit to those licensees. As the proposed higher annual spectrum licence fees would be based on a methodology taking account of the allocation of the spectrum to the higher valued use (the delivery of more advanced mobile services using UMTS technology in the band), and as an up-front access price would be payable by existing licensees as a condition of any extension of their licences, there would be no unfair competitive advantage conferred on existing 900 MHz licensees relative to non-GSM operators where the spectrum assignments of the former were liberalised. As these other proposed provisions of Option 2 as outlined would ensure no competitive distortion even where a prohibition of liberalisation of existing licensees were not imposed, Vodafone contends that there is no basis whatever for the proposed liberalisation restriction on existing licences either on competitive grounds or other grounds related to ComReg's regulatory objectives.

Vodafone submits that while certain respondents to ComReg consultation document 08/57 claim, wrongly in light of the analysis set out above, that not liberalising existing 900 MHz licences (or any spectrum rights of use that may be held under these licences on the basis of an extension) is necessary to avoid serious competitive distortion, the proposed restriction on spectrum liberalisation set out in Option 2 in fact fosters the very competitive distortion that it is intended to

guard against. This is effectively conceded by ComReg in section 9.2.5 of the consultation document where it is stated:

*“A possible argument against this Option is that the 2 X 10 MHz comprising Blocks A and B to be auctioned in 2009 may be the most attractive blocks as it would allow the full spectrum cap to be attained in a contiguous block and provides the main opportunity to achieve **first mover advantage**. This would increase the value of this 2 X 10 MHz tranche of spectrum and, it might be argued, could inflate auction bidding.”* [Vodafone emphasis]

It must be emphasised that the artificial first mover advantage that ComReg has identified as being conferred from proposed Option 2 is entirely the product of ComReg’s proposed policy of restricting existing licences, and any spectrum that continued to be held on the basis of an extension of existing licences, to using GSM technologies only while allowing all *new* licences to be fully liberalised from the outset. The proposed differential approach to liberalisation of existing 900 MHz spectrum usage rights depending on whether they are held under existing licences or new licences by ComReg’s own admission would therefore not only confer artificial competitive advantage on the successful bidders for spectrum Blocks A and B to the detriment of other licensees, but would also fundamentally distort the valuation of spectrum to be awarded under proposed auction phase 1. Vodafone does not understand why ComReg, having identified the competitive distortion inherent in the proposed spectrum liberalisation restrictions in licensing Option 2, has despite this central defect offered the licensing proposal in its current form for further consideration by consultation respondents. Vodafone asserts that given the incompatibility of Option 2 with ComReg’s regulatory objectives, in particular the promotion of efficient competition, the Option must at a minimum be fundamentally revised so as to remove the proposed restriction of existing licences to GSM services only before it can even be considered by stakeholders.

Vodafone does not object in principle to a review of the level of spectrum usage fees in the context where 900 MHz spectrum rights of use are liberalised. Also we do not object in principle to the charging of a reasonable up-front access fee based on a transparent methodology where existing licences are extended or renewed. However Vodafone strongly objects to the fees proposed under Option 2 in the context of the proposals not to liberalise spectrum usage rights held under existing licences, or under extensions of these licences.

Vodafone notes ComReg’s statement in section 9.2.1 that it is minded to base the proposed upfront access fee under Option 2 upon the savings that an existing GSM licensee could make by retaining 900 MHz spectrum beyond its licence expiry date, and is minded to base the annual spectrum fee upon the annual opportunity cost to society for the non-release of the spectrum into the market on a liberalised basis. As previously set out, the lack of transparency around the methodology proposed to be used in setting these fees beyond the high level principles expounded by ComReg is wholly inappropriate and greatly constrains Vodafone’s ability to provide our definitive views. Aside from this issue, Vodafone considers that it would be entirely inappropriate to apply these principles as proposed in the determination of the access and annual fees to be charged for any extension of the duration of existing 900 MHz licences beyond their current expiry date where the restriction of use of this spectrum to GSM technologies only were to remain in place.

The sole economic welfare rationale for implementing spectrum usage fees is to incentivise efficient use of the specific spectrum to which fees apply. Efficiency in this context relates not only to technical efficiency (using no more spectrum than is required for a particular purpose or to provide a particular service) but also to economic efficiency (spectrum is allocated to its highest valued use). In this regard the central aim of the current proposals at EU level to amend existing legislation to introduce technology neutrality in the use of the 900 MHz frequency band across

Europe is to increase economic efficiency by allowing this spectrum to be allocated to its highest valued uses. It is generally recognised that allowing deployment of technologies such as UMTS in the 900 MHz band is an optimal use of this spectrum and has the potential to deliver enormous benefits to end users. It is therefore deeply perverse that ComReg is proposing in Option 2 to impose annual spectrum fees for extended existing licences determined on the basis of the opportunity cost of this spectrum not being allocated to its highest valued use (deployment of UMTS technology in these specific frequencies) while simultaneously maintaining a prohibition on the licensee actually switching use of the specific spectrum frequencies held under extended licences to this optimal use.

In Option 2 the economic incentive to use these specific frequencies optimally arising from the annual spectrum fee determined based on the principle outlined cannot conceivably be acted upon by the licensee given that the restriction on use of the spectrum to GSM technologies exclusively would remain in place. The annual spectrum fee as proposed would be entirely divorced from the only legitimate rationale for justifying it – as an effective incentive for the current holder of the spectrum usage rights for the specific frequencies covered by the licences to act to put them to their optimal use. Vodafone would submit that it is therefore untenable to impose an annual spectrum fee based on the opportunity cost of the spectrum not being released into the market on a non-liberalised basis. If a restriction to GSM use only were proposed to remain in place. This would be a deeply flawed condition as it would delay competitive provision of advanced services to end users without any legitimate justification. If Option 2 were to be implemented with a restriction on liberalisation of use of existing 900 MHz licences, which Vodafone considers would be entirely inappropriate, then the annual spectrum fee must at least be set at a level consistent with the fact that the existing licensee could only use the spectrum for the provision of GSM services. Consequently the annual spectrum fee would inevitably be much lower than the fee charged if set on the basis of the principle proposed by ComReg.

As outlined above, the only valid basis for ComReg to set higher annual spectrum fees on the principle of the opportunity cost of allocating spectrum to its optimal use is where the specific frequencies for which this fee would be charged have been fully liberalised. However the wording of the principle that ComReg proposes in determining the level of annual spectrum fees for any extensions of existing licences appears to Vodafone to demonstrate an alternative and inappropriate rationale for ComReg's proposed approach. In section 9.2.1 ComReg states:

*“In setting the upfront access fee, ComReg is minded to base this fee upon the savings that an existing GSM licensee could make by retaining 900 MHz spectrum beyond its licence expiry date, and is minded to base the annual spectrum fee upon the annual opportunity cost to society for the **non-release of the spectrum into the market on a liberalised basis.** “*

The wording of this principle appears to indicate a view by ComReg that the setting of annual licence fees that are disproportionate relative to the value of the services to which the existing licensees would be restricted to providing using GSM technology is justified to induce the existing licensees to release for auction as early as possible any spectrum they would retain to ensure continuing 2G service provision.

Vodafone contends that the apparent rationale for the restriction on liberalisation of 900 MHz spectrum use is invalid. On the basis of Option 2 as currently formulated, the amount of the existing licensee's spectrum retained and the specific duration of the extension of the licence would be approved by ComReg only on the basis of detailed representations by the licensees demonstrating their requirement for the spectrum in the amounts and for the additional time indicated. The higher fees would not therefore have any incentive effect on the licensees to vacate the spectrum earlier than planned given their demonstrated absolute requirement for use of this

spectrum on the terms previously set out by them and approved by ComReg. As the disproportionately high annual spectrum fees set on the basis of the principle outlined by ComReg would therefore have no relevance in terms of promoting the efficient use of spectrum, they would be entirely unjustifiable and in effect would amount to an unfair penalty on existing 900 MHz licensees simply by virtue of their need to continue to provide GSM services of the required high standard to their customers.

With regard to the up-front access fee proposed to be charged for any 900 MHz spectrum retained by existing licensees beyond the current licence expiry date under this Option, Vodafone notes ComReg's statement in section 9.2.1:

*"In setting the upfront access fee, ComReg is minded to base this fee upon the savings that an existing GSM licensee could make by retaining 900 MHz spectrum beyond its licence expiry date..."*

As previously outlined, a major deficiency of Option 2 as currently set out is the absence of any details on the methodology that would be used to determine the proposed access fee beyond the high level principle set out above. Vodafone cannot therefore provide a definitive response on this aspect of Option 2. However Vodafone must emphasize that the access fee should not be set on a basis that seeks to appropriate the full value of the cost savings that would be realised from retention of the spectrum. In the first instance it cannot legitimately be ComReg's objective to seek to appropriate all the benefits of any retention of spectrum under existing licences when the bulk of these would accrue to end users in the highly competitive mobile retail market.

Secondly, operators must have the opportunity to earn an appropriate risk adjusted commercial rate of return on any investments they make, including investments in acquiring spectrum licences (or in retaining spectrum usage rights for an additional defined period in the context of the current proposed Option). The earning of an appropriate rate of return on invested capital is a key factor in determining the amount that licensees would be willing to bid for spectrum licences in an auction context and must also therefore be incorporated in the methodology for any proposed up-front fee that would be charged. An up-front access fee that did not take account of the requirement for operators to earn an appropriate return would not be agreed to, irrespective of the nature of other terms of the option for extension of existing spectrum licences. In addition any cost savings from retention of spectrum by existing licensees would have to be based on conservative assumptions given the major uncertainties around the scale of such benefits over the relevant time horizon.

There is no assurance however that the methodology that would be used by ComReg in setting an access fee would accurately estimate likely cost savings of spectrum retention, or properly take account of the requirement for operators to make an appropriate rate of return on any access fee to be paid. An excessively high access charge would clearly have an adverse effect on the incentive of existing licensees to innovate and invest, as well as appropriating benefits (eg. lower prices) that would accrue to consumers in a competitive market if the access charge had not been set at an inefficiently high level. This is a major shortcoming of Option 2 as currently framed. Vodafone considers that if a methodology were to be used to set an access charge as proposed, then use of inputs from realised market valuations of the spectrum (in terms of the prices paid for spectrum blocks in the proposed auction phase 1), suitably adjusted for licence duration differences and other relevant factors, would be superior to an entirely abstract model in determining an appropriate up-front access fee for spectrum to be retained.

Serious shortcomings also arise under Option 2 arising from the assignment of the 900 MHz spectrum in multiple phases over an extended period of time. These include the inefficient

restriction of options for bidding for spectrum in any particular auction phase, the prolongation of uncertainty around the assignment of the 900 MHz spectrum over a period of 6 years given the short duration of any extensions of existing licences that may be granted, and the resulting significant risks that existing licensees will not obtain sufficient spectrum to enable them to provide both 2G services and innovative services using technologies such as UMTS at the same time. ComReg itself acknowledges these disadvantages of Option 2 in its assessment in sections 9.2.3 and 9.2.4 of the consultation paper.

Vodafone notes that key advantages of Option 2 as set out by ComReg, including that it would allow all spectrum in the band to be utilised, and would promote competition as new entrants would have an opportunity to acquire liberalised 900 MHz spectrum, are not unique benefits associated with the implementation of Option 2. These benefits could equally be obtained from other licensing options not considered in detail in the present consultation. It is Vodafone's view that there are alternative licensing options that would yield the benefits identified by ComReg for Option 2 while avoiding its deficiencies as already highlighted. Vodafone's already recommended alternative proposal is in our view the optimal licensing approach to achieve regulatory and public policy objectives. Our second alternative proposal as set out in the response to question 8 would also be superior to Option 2.

Vodafone considers that a full assessment of all aspects of Option 2, as set out above, establishes that this licensing option has a number of serious deficiencies that render it inferior to other possible options in terms of the achievement of regulatory and public policy objectives such as the maximisation of regulatory certainty for stakeholders and the efficient management and use of the radio spectrum. Option 2 should not therefore be adopted in preference to these alternative options.

### **Conclusion on the 2 options proposed by ComReg**

As previously set out, it is not possible for Vodafone to take an informed view and therefore give a definitive response on the 2 Options proposed by ComReg in the current consultation given the absence of complete information on key elements of these spectrum assignment proposals. Our response to this question is also without prejudice to our view that the two new proposed Options for the allocation of spectrum in the 900 MHz band are both substantially inferior, from the perspective of achieving statutory regulatory objectives, to the recommended option set out by Vodafone in response to question 17 in our submission to ComReg consultation document 08/57. Vodafone considers that it is highly unsatisfactory that respondents are essentially confined to expressing a preference for one or other of two seriously flawed proposals for the future assignment of spectrum in the 900 MHz band.

On the basis of the two Options as currently set out, Vodafone provisionally concludes that Option 2 is less harmful as it would have benefits (where applications for extensions of existing licences were granted) in terms of providing certainty to existing licensees around their ability to at least continue providing existing GSM services to customers for a further period of up to 4 years beyond the expiry date of current licences, in advance of a 900 MHz spectrum award process. This would thereby mitigate the considerable risks of disruption, and the resulting substantial costs for existing operators and their customers, in the event that adverse auction outcomes were realised for the former. This would also avoid the possibility of the most disruptive outcome of one or more existing licensees failing to obtain any spectrum in the 900 MHz band for a period of time. Vodafone maintains its view that there are major shortcomings with Option 2 as already outlined, but these are, on balance, less serious than the unacceptable risks of total loss of spectrum assignments by

existing 900 MHz licensees, with resulting adverse consequences in terms of disruption and costs for licensees and end users, that would arise if Option 1 were adopted.

Vodafone considers however that a fundamentally revised Option 2, that addressed all of its key deficiencies as already outlined would greatly improve its merits in terms of achieving key regulatory and public policy objectives. A proposal for a revised version of Option 2 is set out in detail by Vodafone below in response to question 7.

Vodafone must emphasise that our preferred option is that set out in response to question 17 in our previous submission to ComReg document 08/57 as it would best fulfil identified regulatory objectives while avoiding the serious inefficiencies and risks associated with both of the new licensing Options set out by ComReg in this further consultation. The alternative option set out in response to question 8 below is a second best approach but would be appropriate where all of the currently unallocated spectrum in the band were to be auctioned. Vodafone urges ComReg to consider our proposed Options on their merits, and to consult upon them in preference to any further consideration or adoption of the 2 Options set out in the present consultation.

**Q7. What variations of the two Options should ComReg consider in finalising this process? Again please provide supporting arguments with your answer and suggest a detailed alternative if applicable.**

As previously set out in the response to question 6, the two new Options proposed by ComReg for allocation of spectrum in the 900 MHz band are both inferior, from the perspective of achieving statutory regulatory objectives, to the recommended option set out by Vodafone in response to question 17 in our submission to ComReg consultation document 08/57.

To summarise, Vodafone's recommended option proposes the extension of the term of the spectrum licences held by each of the current licensees until at least 2021, the amendment of the spectrum usage rights under these licences to increase the spectrum held under each licence from 2 X 7.2 MHz to 2 X 10 MHz, appropriate re-alignment of spectrum assignments under each existing licence, and the holding of a competitive award process only for the single remaining 5 MHz block (eg. Block A) in which existing licensees would not participate (due to a 10 MHz per operator spectrum cap). Vodafone continues to consider that this proposed option is optimal as it maximises regulatory certainty, ensures the efficient use of the spectrum, and avoids the serious risks of disruption and resulting substantial costs and risks for the operators and end users of partial or total loss of existing 900 MHz spectrum allocations as outlined in our submission to ComReg document 08/57. Vodafone notes that this option also effectively facilitates an efficient new market entrant, if present, through the holding of a competitive allocation process for the remaining single 5 MHz block in this band.

Given the superiority of Vodafone's above recommended option in terms of the fulfilment of statutory regulatory objectives, Vodafone contends that it is optimal for ComReg to consult upon, and subsequently implement, this approach while excluding from further consideration the two new proposed Options set out by ComReg in the present consultation document. However if, despite the reasoning set out by Vodafone, ComReg nonetheless determines that the two new Options set out in section 9 of the consultation document are the only options that can be considered, then certain aspects of Option 2 in particular should be modified so as to mitigate the deficiencies of this option that Vodafone has identified and to enhance the prospects for an efficient 900 MHz spectrum licensing outcome.

Vodafone considers that a variant of Option 2 (The multi-phased approach) that would mitigate the deficiencies of this proposed licensing option as currently formulated would require:

1. The removal of the current proposed restriction on the use of any spectrum usage rights that may be retained by Vodafone and O2 beyond 15 May 2011 to provision of 2G services only.
2. The inclusion of fully elaborated, transparent and reasonable methodologies for the determination of any upfront access fee and revised annual spectrum fees. Ideally the determination of an up-front access fee for an extended licence should incorporate information inputs provided by market pricing mechanisms (ideally the price paid by successful bidders for spectrum in the proposed Auction Phase 1) to the fullest extent possible, as opposed to use of an entirely abstract methodology divorced from market valuations as realised in an auction. Annual spectrum fees should be set solely on the basis of ensuring the efficient use of the spectrum and should not be influenced by other considerations.

The removal of the prohibition on full liberalisation of use of the spectrum usage rights held under existing 900 MHz licences would be fully consistent with the liberalisation objective of the Draft GSM Amending Directive, in particular as the concerns around potential competitive distortion that have been raised to justify the proposed restriction are, for the reasons set out in response to question 6, without basis. Indeed the omission of the proposed restriction on the liberalisation of existing 900 MHz licences will avoid the competitive distortions of conferring an artificial first mover advantage on the successful bidder(s) for spectrum envisaged under the proposed Auction Phase 1 arising from the fact that, on the basis of Option 2 as currently formulated, Blocks A and B would be available on a fully liberalised basis from the outset, while spectrum usage rights held under the existing licences would be restricted to the provision of 2G services only. This amendment of Option 2 would therefore better achieve ComReg's objective of promoting efficient competition than this option as currently specified.

A transparent pricing methodology for an up-front access fee that utilises realised information on market valuations rather than use of an abstract pricing model would also be superior to the current approach. Vodafone has already highlighted how the current lack of transparency on the spectrum pricing methodology that would be used under Option 2 prevents Vodafone from providing its definitive views on ComReg's licensing proposals. Use of spectrum valuation information realised from auctions (ie. the proposed Auction Phase 1) in a methodology to inform the determination of an efficient price for spectrum retained under existing licences beyond May 2011 would also be superior to an entirely abstract pricing model that could be overly sensitive to potentially unrealistic assumptions and would thereby run the risk of setting an inefficient up-front price for the spectrum that would adversely affect the incentives for investment and innovation. This methodology used would of course have to adjust for the proposed shorter duration of spectrum rights of use retained under any extension of existing licences relative to the proposed 15 year duration of existing licences and also assumes that all spectrum in the 900 MHz band will be fully liberalised from the outset, as a necessary part of this proposed improved variation of Option 2.

While the variation of Option 2 proposed here by Vodafone mitigates some of the deficiencies of the design of Option 2 as set out by ComReg in the present consultation, it only addresses some of the shortcomings of this proposal in terms of the achievement of key regulatory and public policy objectives. For example even the improved version of Option 2 as proposed here does not address

problems such as the restriction of options for bidding for spectrum in any particular auction phase, the prolongation of uncertainty around the assignment of the 900 MHz spectrum over an extended period of 6 years given the short duration of any extensions of existing licences that may be granted, and the significant risks that existing licensees will not obtain sufficient spectrum to enable them to provide both 2G services and innovative services using technologies such as UMTS at the same time.

For the reasons set out in response to question 6, Vodafone considers that Option 1 as proposed by ComReg is a sub-optimal approach to the allocation of spectrum in the 900 MHz band. However Vodafone does not have proposals for improved variations of Option 1 as the changes that Vodafone would recommend to Option 1 would equate it to our previously recommended option as set out in detail in our response to consultation question 17 in our submission to ComReg document 08/57. This is an entirely new allocation option and could not be regarded merely as a variation of Option 1.

Our proposal for an improved variant of Option 2 is made only in the context where the choice between 900 MHz licensing approaches would be restricted, inappropriately in Vodafone's view, solely to variants of the two options currently proposed by ComReg. This variant is in Vodafone's view still a sub-optimal approach to the arrangements for the allocation of the spectrum in the 900 MHz band.

**Q8. Are there any other new Options that ComReg should consider? Please provide supporting arguments with your answer.**

Vodafone believes that ComReg must fully consider and adopt our recommended option as set out in detail in our submission to ComReg's first consultation (ComReg document 08/57) in our response to consultation question 17, and as summarised here in the response to question 6, as this option best fulfils regulatory and public policy objectives while avoided the inefficiencies and risks associated with ComReg's currently proposed licensing options. Vodafone, for the reasons we have set out in response to question 5, does not consider that the justifications offered by ComReg for not fully considering this option as a whole on its own merits - in particular the assertion that ComReg's prior decision that an open, transparent, and non-discriminatory approach to allocation of 900 MHz spectrum should be used makes it difficult to consider - have any validity.

As set out in response to question 5, Vodafone does not believe that it is necessary for all licensing options to require a competitive award process for the entirety of the spectrum in the 900 MHz band in order for these options to satisfy the criteria of being open, transparent, and non-discriminatory allocation approaches. We therefore urge ComReg to reconsider its assessment in ComReg document 09/14 not to consider the option set out by Vodafone, apparently based on the fact that this option does not propose an auction process for the allocation of all spectrum in the 900 MHz band.

If, despite the reasoning provided by Vodafone demonstrating that our above preferred option is the optimal approach to achieving key regulatory and public policy objectives, ComReg nonetheless concludes that an option involving the auction of at least all the currently unallocated spectrum in the band must be implemented, then Vodafone sets out here an additional proposal that would be superior to ComReg's current licensing proposals while satisfying this requirement.

This new alternative option would have the following elements:

1. The term of the spectrum licences held by the existing 900 MHz licensees would be extended until at least the expiry dates of their current 2100 MHz licences in 2021 (or until 2024-2025 when any spectrum usage rights awarded for currently unallocated spectrum in the band would come up for renewal on the basis of ComReg's current proposals for 15 year licence durations). Ideally however Vodafone considers that the opportunity should be taken at this juncture to extend the terms of the existing licences on a flexible basis, with the amended licences being of indefinite duration but with a minimum term until 2021, and subject to revocation thereafter for well defined reasons where 5 years notice is given by ComReg.
2. All spectrum in the 900 MHz band (whether currently unallocated spectrum or spectrum held under existing licences) would be fully liberalised from the outset so as to allow the deployment of UMTS technology in the band.
3. In late 2009 or early 2010 ComReg would auction all the currently unallocated spectrum in the band in generic (non frequency specific) blocks of 200 KHz. The auction format chosen (eg. simultaneous multi-round ascending) would allow participants to bid for packages of contiguous lots so as to mitigate aggregation risks.
4. A 10 MHz per operator overall spectrum cap would be in place, but existing licensees would not be prevented from participating in the auction. However existing licensees could not submit bids for packages of lots that, if the bid was successful, would lead to them exceeding the overall 10 MHz per operator spectrum cap.
5. All applicants for 900 MHz spectrum would have to sign a binding Memorandum of Understanding/agreement consenting to facilitate contiguous spectrum blocks through retuning/realignment of frequencies as appropriate as a condition of participation in the award process prior to the auction for currently unallocated spectrum in the band going ahead. Existing 900 MHz licensees would have to sign the same Memorandum of Understanding/agreement as a condition of being granted the extension to their existing spectrum licences.
6. Following the auction, spectrum usage rights held under licences would be re-aligned as necessary in order to give all operators blocks of contiguous spectrum. The re-alignment would be carried out in accordance with the principle of achieving this outcome while minimising the extent of the re-alignment required for all licensees.
7. Up-front access fees to be paid for the proposed extensions of spectrum usage rights retained under the licences held by the existing 900 MHz licensees (2 X 7.2 MHz of spectrum for each operator) would be determined by a transparent methodology, clearly defined prior to the auction for currently unallocated spectrum, where the information on market valuations of the spectrum realised from the auction of the currently unallocated spectrum in the band would be the key data input. Existing licensees would have to pre-commit to paying the price determined as an outcome of this process as a condition of the extension of their existing

licences. To facilitate re-alignment these licences would be defined in terms of generic spectrum usage rights equivalent to the amount of current spectrum held under the existing licences (2 X 7.2 MHz) rather than in terms of frequency specific blocks.

This spectrum allocation approach set out above is dependent on the existing licensees consenting to the proposed amendment to the duration and nature of their spectrum usage rights and signing the proposed Memorandum of Understanding. Vodafone considers that the likelihood of securing agreement across the existing 900 MHz licensees to adopt this approach is very good as there are strong incentives for existing licensees to support an approach that assures them of certainty around the availability of at least their current allocation of spectrum to maintain existing services to their customers, while also providing them with the opportunity to acquire additional spectrum up to a 10 MHz limit to enable them to deploy UMTS in the band. ComReg should therefore seek agreement from the existing licensees on such an approach, if it determines that an auction for all the currently unallocated spectrum must be held, as this option would better achieve regulatory and public policy objectives than either of ComReg's two currently proposed options.

### **Benefits of the proposed option**

Vodafone believes that the alternative spectrum licensing option proposed here has considerable merit when assessed against ComReg's statutory regulatory objectives under the 2002 Communications Regulation Act as outlined by Vodafone in the response to question 5 and other relevant public policy criteria.

The renewal of existing 900 MHz licences without an auction for the allocation of these spectrum usage rights, and for an extended period of time (until at least 2021) ensures the necessary high level of regulatory certainty to enable existing 900 MHz licensees to plan and invest efficiently for the long term in mobile infrastructure and innovation by removing any doubts about the ability of the existing licensees to continue to provide at least their current level of services to customers using 900 MHz spectrum going forward. This alternative option is superior to ComReg's proposed Option 2 in providing regulatory certainty as the latter envisages only a limited and insufficient extension to the duration of all or part of Vodafone and O2's existing licences where this is demonstrated by these licensees to be necessary.

This proposed option also avoids the serious risks of disruption, and the substantial costs for operators and end users as described in Vodafone's submission to ComReg's initial 900 MHz licensing consultation (ComReg document 08/57), that would arise if one or more of the existing licensees were to lose some or all of their current spectrum allocation where unsuccessful in an auction. These risks are particularly significant in the case of proposed Option 1 but have in Vodafone's view been inappropriately underplayed in ComReg's analysis. This option is therefore effective in promoting the interests of end users.

Vodafone would highlight that as the auction for the currently unallocated spectrum in the 900 MHz band under this proposal would be for generic blocks of 200 KHz that could be bid for in packages of blocks, existing licensees could each submit bids for packages of 14 blocks of the unallocated spectrum to enable them to obtain 2 X 10 MHz spectrum assignments. This amount of spectrum for each existing licensee is the minimum needed for them to provide existing GSM services to their customers while also offering innovative new services through the deployment of UMTS technologies in the band. However this option is also consistent with the regulatory objective of promoting competition as applicants that do not hold spectrum in this band would also be able to

bid for the currently unallocated 900 MHz spectrum, and the use of 200 KHz spectrum blocks would mean that while existing licensees would be facilitated in obtaining the additional spectrum that they require, individual new licence applicants would not be prevented from bidding for packages of lots of 200 KHz blocks amounting to a maximum of 10 MHz where they wished to do so. A 10 MHz per operator spectrum cap would also ensure that where demand for the spectrum exceeded the supply at a reasonable reserve price, it would be certain that a new entrant would be able to obtain at least a single 2 X 5 MHz block in this band.

Vodafone acknowledges that the 200 KHz spectrum blocks set out in this proposal would require the issue of the appropriate minimum block size to be revisited, and that this proposal appears radical relative to the current proposed 5 MHz block size that ComReg has concluded to be optimal. However we consider that a change to ComReg's current proposal on a minimum 5 MHz block, to a 200 KHz minimum block size, would be objectively justified to facilitate this alternative proposed option in the context where it was determined that all the currently unallocated spectrum in the 900 MHz band should be auctioned.

With regard to the objective of ensuring the efficient management and use of the radio spectrum, Vodafone considers that this option would allow maximum flexibility in terms of opportunities for existing and new licensees to obtain efficient assignments of spectrum to enable them to achieve their service objectives. We would accept that there is a risk that if applicants were to bid for some types of non-standard amounts of spectrum that this could leave small amounts of currently unallocated spectrum underutilised or unutilised. However, as the amounts of spectrum that applicants would typically require to provide commercial services to consumers based on wideband technologies are standardised, the probability of this outcome remains limited and could be mitigated ex-post through re-assignment of unused spectrum blocks.

In light of the above analysis, Vodafone contends that the alternative option proposed here is superior to ComReg's current proposed options where it is concluded that all the currently unallocated spectrum in the band must be auctioned. However, as previously stated, Vodafone considers that our preferred option as set out in detail in our submission to ComReg's initial 900 MHz licensing consultation (ComReg document 08/57) in response to question 17 is the optimal approach to the allocation of spectrum in the 900 MHz band.

**Q9. In the above Options, do you agree with ComReg's proposal to limit the time period for re-alignment of existing networks to other spectrum assignments to a maximum period of 6 months?**

No. Vodafone considers that where there is the necessary high degree of co-ordination between licensees, a 12 month timeframe to complete any required re-alignment of existing spectrum assignments would be necessary. More clarity needs to be provided however on the mechanics of how the proposed re-alignment would be facilitated, and the nature of ComReg's role in such a process.

**Q10. Under Option 2, and in the event that the existing 900 MHz licensees wish to continue use of their frequency assignments beyond the expiry dates of their current licences, do you agree with the principles ComReg has outlined for use when setting an increased spectrum fees levy appropriate for those extended licences? Please provide supporting arguments with your answer and suggest a detailed alternative if applicable.**

Please see Vodafone's comments on this issue included in our assessment of Option 2, as set out previously in our response to question 6.

**Q11. It is ComReg's intention to include conditions in any new 900 MHz licences issued.**

- a. Should the conditions be limited to existing services such as voice and text or be broadened to include other services such as broadband?**
- b. What kind of conditions (e.g. Coverage, Roll-Out, Quality of Service, etc.) should be included?**
- c. At what level should these conditions be set?**

**Please provide reasons for your views.**

Vodafone considers that, in addition to licence conditions requiring the provision of existing services such as voice and text, the scope of the services required to be provided by Licensees in new 900 MHz licences issued should be extended to include a requirement to provide mobile broadband services. This would be appropriate as the key benefit of new 900 MHz licences offered on a liberalised basis would be to allow the provision of enhanced data services, such as high speed internet access using HSDPA and further evolutions of this standard, at competitive prices and to a much larger percentage of the population and national territory than is currently feasible on the basis of use of other frequency bands, such as at 2.1 GHz.

As use of the 900 MHz band on a liberalised basis to provide mobile broadband services would allow any given level of population or geographic service coverage to be achieved at significantly lower cost (through the lower number of base stations required) than use of the 2.1 GHz band, and to maximise economic benefits from use of the spectrum, coverage obligations should be included as conditions of licences. Vodafone considers that it is also appropriate that coverage conditions in licences should also specify higher levels of population and geographic coverage than are set out in existing 2.1 GHz licences. Vodafone must emphasise however that the time frames to be set down for achievement of ultimate coverage obligations should be reasonable in the context of the periods that would be required, for example, for a new entrant to roll-out a new network at 900 MHz, or for existing 900 MHz licensees to deploy UMTS technologies in the band and transition their existing customer base to the provision of mobile broadband and other advanced data services using these frequencies. Vodafone considers that it may be appropriate that population coverage and geographic coverage commitments should be met on a phased basis over time.

Vodafone agrees that it would be appropriate to include quality of service conditions in the licences provided that these are reasonable minimum standards that are not overly prescriptive or would have the effect of unreasonably restricting operator's freedom to provide innovative service offerings. Reasonable minimum standards should be set by reference to conservative assumptions about the levels of performance that will be achievable (eg. mobile broadband data speeds) over time on the basis of currently available information on the potential of future technologies and standards. It may be appropriate that any ultimate QoS licence conditions should be required to be met on a phased basis over time. Vodafone considers that minimum QoS licence conditions for data speeds (download and upload) would be appropriate.

Vodafone agrees with ComReg's view as set out in section 5.1.3 of the consultation document that there may be justification for permitting spectrum sharing in the provisions of 900 MHz and 1800 MHz licences. We consider that, at a minimum, it would be appropriate to ensure that the provisions of licences do not have the effect of hindering or preventing spectrum sharing where the relevant licensees consent to do this to maximise efficiency in their use of the spectrum and facilitate migration to the provision of innovative new technologies and services.

**10 Late Submissions Received**

**ESB – Late Submission**



## **ESB response on**

### **ComReg consultation – “Liberalising the Future Use of the 900 MHz and 1800 MHz Spectrum Bands & Spectrum Release Options” ComReg document 09/14**

ESB welcomes the opportunity to respond on this consultation from ComReg

As stated previously to ComReg, ESB currently uses GSM service for a large number of fixed telemetry devices in connection with the national electricity network. Country wide wireless data services, including service provided on GSM networks, will continue to be a valuable option to serve a number of requirements related to operating the electricity network.

In this context ESB provides the following response to question 11 in the consultation document.

The text of the consultation question is:

**Q. 11. It is ComReg’s intention to include conditions in any new 900 MHz licences issued.**

**a. Should the conditions be limited to existing services such as voice and text or be broadened to include other services such as broadband?**

**b. What kind of conditions (e.g. Coverage, Roll-Out, Quality of Service, etc.) should be included?**

**c. At what level should these conditions be set?**

**Please provide reasons for your views.**

ESB’s response:

ESB has an interest in GSM services to fixed devices – dial up modem use, GPRS data service and SMS in particular.

The comments below correspond to the subsections in the question.

- a. Licence conditions should include other services – GSM dial up data service and GPRS packet data service should be included in the conditions.
- b. For the existing GSM services noted above conditions on not reducing coverage and not reducing Quality of Service (compared to current levels), before a certain notice period has expired should be stated. A suitable notice period would be 6 years or greater.

- c. The level of service (coverage and Quality of Service) should not be reduced below the level it is at when new licence applications are made, or the level they are required to be by ComReg (under the current licence conditions) if this is higher. The reasoning for this is that current users who have a level of service should not experience a reduction in this level of service before receiving adequate notice of this reduction in service. This is to give the users enough time to plan and implement a new replacement service and not to have unreasonable costs in having to replace GSM equipment that has been in service for a short period of time.

The overall aim here is that existing users of these services, including ESB, should not experience a withdrawal of the service or a reduction in the quality of the service that renders it not suitable for use, before they receive adequate notice that this is going to happen. The notice period should take into account the cost of changing equipment and the cycle periods that customers would normally change out or upgrade their equipment.

**Vodafone Ireland – Late Submission**

## Decision of the Swedish NRA (PTS) on Licensing of the 900 MHz Spectrum Band

In Sweden the operators Swefour, Tele2, Telenor and TeliaSonera all hold GSM licences in the 900 MHz band. Their assignments within the 2 X 35 MHz total band prior to the recent decision of the regulator were: Tele2, Telenor and TeliaSonera [2 X 7.2 MHz each] and Swefour [2 X 6.8 MHz]. All licences, with the exception of Swefour's, apply up to and including 31 December 2010. Swefour's licence expires on 31 May 2017, although the licence conditions (including the frequency assignment) expire earlier, on 31 December 2010. HI3G (Hutchison) has a UMTS licence for the use of radio transmitters for UMTS in the 2.1 GHz band as have Svenska , TeliaSonera , Tele2 and Telenor.

PTS decided that the optimal approach to the future treatment of the GSM band would in the first instance see all of the 35MHz of spectrum in the 900 MHz band allocated to the current GSM licence holders. These new licences would run until 2025. Concurrently, two of the licence holders would have their licence conditions amended to allow each of them transfer 2 X 5 MHz to HI3G. This phased approach is shown in the following table;

Operator	Current Allocation	New Allocation Phase 1	New Allocation Phase 2
Tele2	7.2	10	7.5
Telenor	7.2	10	7.5
TeliaSonera	7.2	10	10
Swefour	6.8	5	5
H3G	0	0	5
Total Spectrum	28.4	35	35
Free Spectrum	35	35	35
Spectrum in MHz and assumes paired allocation	6.6	0	0

PTS went into great detail as to the reasons why this was the optimal way forward in relation to the future treatment of 900 MHz spectrum. These reasons are summarized as follows;

1. The current licence holders are completely dependent on 900 MHz spectrum in order to continue operations.
2. The operators will be adversely affected by operational and financial problems if the licences are not extended
3. Consumers' mobile communication opportunities will be strongly adversely affected since any new GSM network would take many years to roll out.
4. The migration of subscribers to UMTS will be far from complete by the end of the current licences.

5. The LRIC models submitted by operators to date show substantial traffic on the GSM Network after the 2010 expiry.
6. There is a presumption for an extension contained in previous PTS documents relating to the licence.
7. Operators have made significant investments in their networks and do not have a sufficient time to make a reasonable return on their investment before the licences expire.
8. International roaming arrangements could be impacted without extension of the licences.
9. GSM networks are of crucial importance to Swedish society.
10. Any competitive distortion is prevented since HI3G gets an allocation of 5 MHz.
11. The proposals comply with EU legislation and the expected amended GSM directive.
12. Spectrum efficiency is the primary consideration in the move.

In light of these reasons, it is clear to see why PTS concludes that '*the extension is completely unavoidable*'. What is also clear is the parallel with the current situation in Ireland with respect to the future use of GSM spectrum. The above list of reasons could almost without exception be used as the basis for ComReg to pursue a similar approach to that of PTS. For example, ComReg's concerns in relation to the possibility of any competitive distortions affecting H3G arising from GSM liberalisation would be addressed if H3G were to receive an allocation of 900 MHz spectrum. This was agreed to by HI3G in Sweden where the final arrangement was agreed to by all the mobile operators.

PTS also allayed fears in relation to general competitive issues by pointing out that Sweden with a population of 8.7 million has 5 mobile network operators. This compares with 4 in Germany (pop. 82.5m), 3 in France (pop. 61.6m) and 3 in Italy (pop. 58.1m). Ireland (pop. 4.5m) with 4 active operators compares favourably on these measures. PTS makes no reference to MVNOs and their relevance to the future use of 900 MHz spectrum.

Vodafone believes that PTS' considered and rational approach to the future use of 900 MHz spectrum adds further compelling evidence to that already given by Vodafone in our submissions to ComReg documents 08/57 and 09/14, in support of ComReg reconsidering its current approach. Indeed, the PTS approach is similar to Vodafone's preferred option as outlined in our submissions to both 08/57 and 09/14. Under current EU legislation, PTS is subject to the same regulatory imperatives as ComReg when it comes to spectrum management. However, PTS goes beyond consideration of these imperatives alone when reaching its decision. It fully considers the serious detrimental effects on the

Swedish national interest, on consumer's expectations and experience of mobile services, and on the legitimate business interests of existing operators if it failed to extend the current licences. In short, it makes the best decision for Sweden in the light of all relevant prevailing circumstances.

Vodafone strongly urges ComReg to follow a similar path to that of Sweden. We believe an equitable solution can be found if ComReg facilitates a similar approach to allocating the current and unused GSM spectrum. This would achieve the best outcome in the national interest.