An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Proposed Licensing Framework for Private Mobile Radio and Wireless Broadband Low Medium Power

Response to Consultation with draft Decisions and draft Regulations

Response to Consultation

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Content

Section Page

Annex

Section Page

Table of Figures

Section Page

Table of Tables

Section Page

Chapter 1

1 Introduction

1.1 Background

1.1 On 11 July 2025, ComReg issued a consultation[1] ("Document 25/46") on the proposed licensing frameworks for Business Radio, and particularly narrowband[2] Private Mobile Radio systems ("PMR") and Low & Medium Power Wireless Broadband[3] systems ("WBB LMP").

1.2 PMR is a radiocommunications service which supports a wide variety of sectors such as the industrial, transportation, governmental, energy/utilities, hotels/tourism, financial, and agricultural. PMR networks are, in general, private networks which provide reliable voice and data communications to a closed user group and do not interconnect with public radiocommunications networks.

1.3 Traditionally, the bandwidth requirements of PMR networks have been low, for example 25 kHz or less, as the networks tended to carry voice and low amounts of data. Due to the low bandwidth requirements, PMR frequency requirements have been accommodated in the sub-1 GHz frequency ranges where the propagation characteristics support the coverage area requirements of the various PMR uses.

1.4 Since the early 2010s, telecommunications standards have been evolving in a fashion that enables the deployment of efficient broadband networks for radiocommunications services. Broadband networks were initially deployed on public networks which serve a significant number of end-users to provide access to a wide variety of services. However, with an increase in operational data requirements across several sectors such as industrial, manufacturing, etc. organisations in these sectors are now considering deploying broadband PMR networks of their own, utilising LTE and 5G standards to meet their bandwidth requirements.

1.5 To address this demand, on 2 December 2025, the European Commission adopted a Decision on the harmonisation of the 3800-4200 MHz frequency

[1] Proposed licensing regimes for Private Mobile Radio (PMR) and Low & Medium Power Wireless Broadband Systems (WBB LMP) | Commission for Communications Regulation

[2] As defined in Consultation 25/46: Narrowband means a communication channel which operates within a small bandwidth, typically less than 25 kHz. Narrowband systems transmit data, voice, or signals over long distances using minimal bandwidth. Examples of technologies which uses narrowband are telemetry, low-power IoT networks, and legacy telecommunication systems.

[3] As defined in Consultation 25/46: Broadband (or wideband) means a communication channel which operates across a wide bandwidth typically in the MHz range. Wireless broadband systems transmit data using communication standards such as LTE and 5G.

band for the shared use by terrestrial wireless broadband systems capable of providing local-area network connectivity in the Union.[4] The Decision requires Member States to designate and make available on a non-exclusive basis the 3.8-4.2 GHz frequency band for WBB LMP systems by 30 September 2026.

1.6 ComReg is of the preliminary view that while demand for PMR licences using narrowband systems will continue, there is a growing demand for a licensing framework to authorise the use of private broadband networks in areas such as transport, industry, and manufacturing.

1.7 Consequently, the purpose of the consultation process is twofold, the first is to modernise the existing licensing framework for narrowband PMR systems while the second is to introduce a licensing framework for broadband PMR systems (also referred to as low- and medium-power terrestrial wireless broadband ("WBB LMP systems") systems) now underpinned by the EC's harmonised technical Decision (EU) 2025/2425.

1.8 Together with Document 25/46, this document considers proposed licensing frameworks for narrowband PMR systems (Chapters 3 and 4) and WBB LMP systems (Chapters 5,6 and 7) as while both fall under Business Radio, each has separate operational requirements, notwithstanding that both would be intended for use by private closed group networks separate to the public radiocommunication networks.

Response to Consultation Document

1.9 This response to consultation document sets out ComReg's assessment of submissions received in response to Document 25/46.

1.10 For the proposed narrowband PMR licensing framework, Document 25/46 considered and made proposals regarding the following aspects of a future PMR Licensing framework:

- licence Duration;
- licence Fees;
- licence types;
- geographic scope; and
- frequency Bands.

1.11 For the proposed WBB LMP licensing framework, Chapter 6 of Document 25/46 set out ComReg's initial analysis and proposals on a licensing framework in the 3.8-4.2 GHz Band, where firstly ComReg's outlined its views on a number of high-level principles that could inform the establishment of a

[4] Decision (EU) 2025/2425 - https://docdb.cept.org/download/4862

licensing framework and secondly set out its analysis and proposals in relation to the specific aspects of a WBB LMP licensing framework, as follows:

- transmission power in the band;
- licensing and network planning approach;
- bandwidth;
- synchronisation;
- licence duration;
- rollout and usage obligations;
- fees;
- application process; and
- aharing and compatibility considerations.

1.12 With regard to other issues discussed; ComReg refers interested parties to Document 25/46.

1.13 ComReg received seven responses to the Consultation (the "Respondents"), from;

(i) Analog Devices Ltd ("**Analog**");
(ii) DECT Forum; ("**DECT Forum**");
(iii) Druid Software Ltd ("**Druid**")[5];
(iv) European Users Wireless Enterprise Network Association ("**EUWENA**");
(v) Shure UK Ltd, ("**Shure**");
(vi) Sigma Wireless Ltd ("**Sigma**"); and
(vii) Transport Infrastructure Ireland ("**TII**").

1.14 All but the response from Shure, which addressed narrowband PMR, relate to the Proposed WBB-LMP licensing framework in the 3.8-4.2 GHz Band. These are addressed at Chapter 2 and Chapter 5 respectively.

1.1.2 Consultant Reports

1.15 ComReg is publishing alongside this document:

- an analysis prepared by ComReg's independent economic consultant, DotEcon Limited ("DotEcon"), of submissions received in response to

[5] Analog and Druid essentially made the same substantive response and so is also referred to as "Analog/Druid" in the remainder of the document, where relevant.

Document 25/46 relating to licensing and design elements of the establishment of a WBB LMP Licensing framework (Document 26/06a) and its proposals in relation to fees; and

- an analysis prepared by ComReg's independent technical consultant, Plum Consulting ("Plum") of submissions received in response to Document 25/46 relating to technical and engineering elements of the establishment of a WBB LMP Licensing framework (Document 26/06b).

1.2 Structure of this document

1.16 This document is structured as follows:

- **Chapter 2**: sets out ComReg considerations of the submissions received to Document 25/46 regarding the narrowband PMR licensing framework. This includes ComReg's assessment of the responses;
- **Chapter 3**: sets out ComReg's final Regulatory Impact Assessment ("RIA") on licence fees for PMR having addressed the relevant responses received to Document 25/46;
- **Chapter 4**: sets out the fees for narrowband PMR;
- **Chapter 5**: sets out ComReg considerations of the submissions received and updated licensing proposals related to the Proposed WBB-LMP licensing framework in the 3.8-4.2 GHz Band;
- **Chapter 6**: sets out a draft RIA for the establishment of rollout and usage conditions to be applied to a WBB LMP Licence having addressed the relevant responses received to Document 25/46;
- **Chapter 7:** sets out the fees for WBB-LMP;
- **Chapter 8**: sets out the draft Decision Instrument for Narrowband PMR;
- **Chapter 9**: sets out the draft Decision Instrument for WBB LMP.
- **Annex 1**: Relevant Legal Framework
- **Annex 3**: Draft Licensing Regulations Narrowband PMR
- **Annex 4:** Draft Licensing regulations WBB LMP

Chapter 2

2 Proposed Narrowband PMR licensing Frameworks

2.1 In this chapter, ComReg considers the submission received from Shure regarding the proposed licensing framework for narrowband PMR in Ireland.

2.2 ComReg's assessment of responses regarding Narrowband PMR

2.2 In Document 25/46, ComReg set out its proposed licensing framework for Narrowband PMR. ComReg proposed to introduce a consolidated PMR licence to replace the range of licence types currently available under the existing business radio framework.

2.3 Chapter 4 of Document 25/46 summarises the proposed consolidated PMR licence framework ("PMR Licences") and ComReg's intention to maintain a separate licensing framework for Programme Making and Special Events ("PMSE Licences").

2.4 Further, Chapter 4 of Document 25/46 also outlined the channel options for Programme Making and Special Events ("PMSE") depending on the use case and frequency band chosen by the licensee. The channel sizes are general bandwidths, and the chapter clarifies that ComReg would consider other bandwidths for PMSE on a case-by-case basis.

2.2.2 Summary of response - Narrowband PMR

2.5 Shure submitted that it supports the proposal to maintain a separate PMSE Licences framework.

2.6 Shure also submitted that:

"*the proposals also imply that ComReg is moving away from the 200 kHz maximum channel bandwidth limitation that precludes the latest PMSE equipment based on Wireless Multichannel Audio System. The bandwidth limitation has been removed by most national administrations. We therefore call on ComReg to formally remove it and would welcome any update that accommodates the continuing innovation within PMSE and which promotes flexibility and choice for PMSE users*".

2.7 Shure is supportive of proposed fees as outlined in Document 25/46.

2.2.3 ComReg's Assessment

2.8 ComReg welcomes Shure's submission. As noted earlier, ComReg did not receive any further comments on the proposals outlined in Document 25/46. Therefore, ComReg remains of the preliminary view as outlined in Document 25/46, which include;

- the introduction one consolidated licences for PMR services,
- fees as proposed in Document 25/46, and,
- maintenance of a separate PMSE licensing Regime.

2.9 Regarding Shure's contention that ComReg would appear to be moving away from a maximum channel bandwidth of 200 kHz, ComReg notes that it made no such proposal and that 200 kHz therefore remains as the minimum channel bandwidth for wireless microphones and in-ear monitors. Consequently, licence applicants will continue to apply for the quantum of spectrum required to meet their needs and the ***minimum*** channel bandwidth will remain at 200 kHz.[6]

2.3 Licence types

2.10 In Document 25/46, ComReg noted that there are currently six types of PMR licence types available:

(a) Business radio systems that communicate on different modes from a fixed control point or mobile terminal or between mobile terminals;

(b) Third party business radio (TPBR) licences which are designed to allow the licence holder to lease radio equipment and spectrum access to third parties for PMR type applications;

(c) Mobile radio (also called trunked radio) systems which use a pool of channels that can be accessed by multiple users within a closed user group;

(d) Community repeater systems which comprise a base station (typically in a remote position on a high site), trigger stations, and mobile stations that allow equipment providers to offer use of the base station. The systems provide two-way communications services to a number of users on a channel sharing basis;

[6] ComReg observes that Shure's submission may relate to the current PMSE licensing process on its eLicensing platform in which users select individual channels of 200 kHz bandwidth to make up the quantum of spectrum they require. As part of the implementation of a future revised regime, ComReg would develop and deploy the necessary changes to its eLicensing systems to facilitate applicants to apply for the quantum of spectrum required for their applicant.

(e) PMSE licences which cover the operation of radio equipment at a given location for outside broadcasting and music/sporting/theatrical/etc. events, for a specified time not to exceed six months; and

(f) Paging systems which send one-way coded signals (e.g. a beep or a text message) to a paging receiver owned by a subscriber. Currently, ComReg grants paging permits rather than licences, and there are no fees nor expiry dates associated with a paging permit.

2.11 ComReg also notes that these various licence types were introduced at various points over a protracted period to address requirements arising from the then prevailing technologies, networks and services.

2.4 Consolidation of PMR Licence types

2.12 In Document 25/46, ComReg proposed that a future PMR licensing framework would have just two licence types, PMR licences and PMSE licences:

(a) The PMR licence type would consolidate the existing licensing frameworks for Business Radio, Third Party Business Radio, Trunked Radio, Community Repeaters and Paging into a single technology neutral framework; and

(b) The PMSE licence type would be the same as the current PMSE licence type, except for a proposed new fee structure.

2.13 ComReg outlined its rationale for the retention of a separate licence type for PMSE:

(a) PMSE users require access to additional frequency ranges for specific radio equipment, e.g. wireless cameras, that the users of the other PMR frequencies do not; and

(b) The events for which PMSE licensees provide communication services generally take place over very short periods i.e. days for concerts and months for TV/film productions. This is reflective of the different use cases of PMSE licensees.

2.14 While no submissions were made regarding the proposed new licence types, ComReg remains of the view that a consolidated PMR licence (which would now include paging) and a separate PMSE licence are required for a new PMR licensing framework.

PMR Licence – individual and shared rights of use

2.15 ComReg noted in Document 25/46 that currently the Third-Party Business Radio licence type is the only framework where licensees have the option of

individual rights of use being assigned for individual channels, whereas channels assigned to PMR licences are assigned on a shared basis. This is also in part because TPBR channels are licensed on a national basis meaning that it would not be possible for other users to access the same frequencies. By comparison, the other frameworks involve users sharing access to the different frequency bands available for PMR and this has meant that frequencies can be re-used by multiple users.

2.16 ComReg observed that data gathered by ComReg shows that TPBR licences are typically used to deliver on-site usage across different parts of the country. This points to a likely need for a more regional licence with the possibility for individual rights of use being assigned on a more localised basis rather than a national based approach.

2.17 Consequently, ComReg proposed that channels for PMR licences would be made available on either on an individual rights of use or shared use basis. Any applicant would be required to justify why exclusive use is required.

2.18 Shared use is spectrally efficient as multiple operators with overlapping coverage areas could be assigned the same channel, making use of spectrum management techniques such as tone control and channel access codes to share the channel without harmful interference. Applicants could also specify the main operating hours to enable other users operate on the same channel at an alternate time, for example, a channel could be used during the daytime for crane control, while a security service uses the same channel at night.

Proposed assignment of frequencies on an individual rights of use or shared use basis.

2.19 ComReg is of the view that individual rights of use are more suitable for PMR Licences where base stations are deployed due to a greater likelihood of interference from transmitting a higher power within the operating area of the base station. Shared use of channels is typically better suited to low power equipment operating the same type of technology (i.e. analogue vs digital), using tone control while not constantly transmitting.

2.20 In Document 25/46, ComReg proposed that applicants would be able to request licences with individual or shared rights of use for the geographic scope of their licence requirements. ComReg noted that shared use meant that multiple operators with overlapping coverage areas could be assigned the same channel and should make use of spectrum management techniques like tone control and channel access codes to share the channel without harmful interference. ComReg also noted that applicants could also specify the main operating hours to enable other users operate on the same channel at a different time as outlined above.

2.21 ComReg proposed, in Annex 2 of Document 25/46, an appropriate licence fee methodology for licences operating individual or shared rights of use. No submissions were received in regard to the proposed fee methodology which is discussed further at Chapter 4. Further to the above, ComReg proposes that in regard to the practical application of the fee methodology:

(a) PMR Licences with individual rights of use for frequencies would be issued in all cases where required by the applicant;

(b) shared rights of use would, in general, be issued for low power systems without a base station or repeater with a lower rate of transmissions, for example no more than 33% of the time during busiest hour(s) of operation; and:

(c) shared use rights of use would operate on a non-interfering and non-protected basis.

2.22 In all cases, ComReg would assess PMR Licence applications for individual and shared rights of use to coordinate deployments and minimise interference. ComReg also intends to publish the relevant PMR licence details on its Siteviewer website[7] to assist PMR applicants and licensees in planning their network deployments.[8]

2.5 PMR frequency bands

Harmonisation of frequency bands

2.23 In Document 25/46, ComReg proposed to maintain the current frequency arrangements in the lower and upper parts[9] of duplex sub-bands within the 68-88 MHz, 155.85-174 MHz and 450-470 MHz frequency ranges rather than aligning with ECC Recommendation T/R 25-08 ("T/R 25-08").[10] ComReg is of the view that aligning the lower and upper parts of the sub-bands with T/R 25-08 would cause significant disruption to current licensees and impart significant costs on Licensees. ComReg noted that the current configuration of the duplex sub-bands aligns with the UK's configuration of the same frequency ranges.

2.24 While no submissions were received in response to the proposal, for the reasons set out in section 2.4 of Document 25/46, ComReg remains of the view that no change should be made to the configuration of the lower and upper

[7] siteviewer.comreg.ie

[8] ComReg currently publishes the relevant details of Fixed Radio Link Licences, Fixed Wireless Access Local Area Licences, Mobile Licences and Satellite Earth Station Licences on its Siteviewer website.

[9] In Ireland base or repeater stations transmit in the lower part of a duplex channel, while mobile stations transmit in the upper part of a duplex channel.

[10] https://docdb.cept.org/download/4789

parts of the relevant sub-bands. ComReg intends to continue to monitor the usage of the 68-88 MHz, 155.85-174 MHz and 450-470 MHz frequency ranges and to engage with Ofcom (UK) in our mutual interests and in the event any future requirements necessitate a change to the duplex sub-bands configuration to align with T/R 25-08.

Proposed changes to PMR frequency ranges

2.25 In Document 25/46 ComReg proposed that the 385-400 MHz and 415-429 MHz frequency ranges would be closed to new applications and that any applications for PMR licences to operate a trunked radio system would be assigned spectrum within the 450-470 MHz range.

2.26 ComReg proposed to not migrate any existing Trunked Radio licensees from the 385-400 MHz and the 415-429 MHz frequency ranges. ComReg noted that over time some of the current Trunked Radio licences may migrate gradually to other licensing regimes such as a future WBB LMP regime where larger bandwidths may be available to meet specific sectoral requirements.

2.27 While no submissions were received in response to the proposal, ComReg remains of the view it is appropriate to close the 385-400 MHz and 415-429 MHz frequency ranges to new applications within the proposed new PMR licensing framework. The 68-88 MHz, 155.85-174 MHz and 450-470 MHz frequency ranges would remain available for PMR licensing.

Frequency ranges for PMSE

2.28 ComReg proposes to maintain, at this time, the frequency ranges currently allocated for Programme Making and Special Events as set out in ComReg Document 08/08[11], as amended.[12] [13]

2.29 Regarding the allocation of other frequency ranges for PMSE use, ComReg observes that ECC Report 358[14] states that networks using 5G standards have advantages when compared to traditional wireless networks used for PMSE. Unlike traditional digital wireless cameras links, ultra-high definition cameras,

[11] ComReg Document 08/08R7 – Guidance Notes: Radio Licensing for Programme Making and Special Events Use in Ireland – published 8 March 2023.
[12] The current version of ComReg Document 08/08 is revision 7: https://www.comreg.ie/media/2023/03/ComReg-08_08R7.pdf
[13] However, ComReg notes that the current frequency allocations for PMSE are subject to change from time to time when spectrum is designated for other services on a primary basis. For example, in 2023 the 703-733 MHz/758-788 MHz frequency range was closed to PMSE applications following the completion of the Multi Band Spectrum Award 2022.
[14] ECC Report 358 – In-band and adjacent bands sharing studies to assess the feasibility of the shared use of the 3.8-4.2 GHz frequency band by terrestrial wireless broadband low/medium power (WBB LMP) systems providing local-area network Connectivity – published 28 June 2024. https://docdb.cept.org/download/4673

for example, using 5G can be used for enhanced PMSE applications to provide higher throughput.

2.30 ECC Report 358 also notes that unlike conventional PMSE, where separate radio devices are deployed for audio and video applications in forward and reverse directions for each connecting device, 5G allows a single base station to support multiple connections which can including audio, video, camera control, tally light or virtually any service that can be connected using Internet Protocol addresses.

2.31 Regarding PMSE use within the 3.8-4.2 GHz frequency range, ECC Report 358 concludes that as 5G develops further, it is anticipated that the PMSE use case will expand.

2.32 Therefore, ComReg is of the view that the use of the 3.8-4.2 GHz frequency range for short-term PMSE use would be beneficial in terms of providing higher quality wireless services. ComReg notes that as the majority of PMSE use is for a short duration within a small area or venue, low power PMSE use of the 3.8-4.2 GHz frequency range is unlikely to impact WBB LMP users licensed under the proposed WBB LMP licensing framework. However, to ensure protection of WBB LMP Licensees, PMSE use would be strictly on a non-interfering and non-protected basis and be subject to spectrum availability at any point in time.

2.33 Consequently, ComReg proposes to authorise the use of the 3.8-4.2 GHz frequency range under the PMSE Licence type on a non-interfering and non-protected basis.

Chapter 3

3 Draft Regulatory Impact Assessment - PMR Licensing

3.1 Introduction

3.1 PMR refers to a variety of licence types issued by ComReg that are used to provide wireless communication services over private networks. Each licence type is issued under its own framework with different technical conditions and fees applicable to each framework and consists of the following licence types:

- Business Radio;
- Community Repeaters;
- Third Party Business Radio;
- Trunked Radio;
- PMSE; and
- Paging (permit)[15].

3.2 This chapter sets out ComReg's draft Regulatory Impact Assessment ("RIA") on the procedure for setting spectrum fees for PMR licences by outlining the relevant policy issues and assessing the various regulatory options to determine ComReg's preferred option, having regard to the impact on stakeholders, competition, and consumers.

3.3 While assessing the various regulatory options, ComReg will do so in line with relevant legal obligations including Regulation 24 of the European Union (Electronic Communications Code) Regulations 2022[16] (the "ECC Regulations"), which requires that any regulatory option in relation to fees chosen by ComReg is objectively justified, transparent, non-discriminatory and proportionate.

3.4 ComReg has prepared this RIA having careful regard to the relevant information available, including the following:

[15] ComReg issues permits for paging under the Wireless Telegraphy Acts, 1926-1988
[16] Regulation 24 of S.I. No. 444 of 2022.

- Interviews carried out by DotEcon and ComReg with multiple stakeholders including existing users and equipment vendors prior to the first consultation (the “Stakeholder Interviews”);
- A survey issued to all PMR licensees;
- The two DotEcon Reports (Document 25/46a published alongside the first consultation and ComReg Document 26/06a which is published alongside this response to consultation document); and
- The submissions received to Document 25/46.

RIA Framework

3.5 In general terms, a RIA is an analysis of the likely effect of proposed new regulation or regulatory change and, indeed, of whether regulation is necessary at all. The RIA should help identify regulatory options and establish whether the proposed regulation is likely to have the desired impact, having considered relevant alternatives and the impacts on stakeholders. The RIA is a structured approach to the development of policy and analyses the impact of regulatory options. In conducting a RIA, the aim is to ensure that all proposed measures are appropriate, effective, proportionate and justified.

3.6 A RIA should be carried out as early as possible in the assessment of regulatory options, where appropriate and feasible. The consideration of the regulatory impact facilitates the discussion of options, and a RIA should therefore be integrated into the overall analysis. This is the approach which ComReg follows in this document, and the RIA should be read in conjunction with the overall Consultation.

3.7 In conducting a RIA, ComReg has regard to the RIA Guidelines[17] , while recognising that regulation by way of issuing decisions, for example, imposing obligations or specifying requirements in addition to promulgating secondary legislation, may be different to regulation exclusively by way of enacting primary or secondary legislation.

3.8 To ensure that a RIA is proportionate and does not become overly burdensome, a common-sense approach is taken towards a RIA. As decisions are likely to vary in terms of their impact, if after initial investigation, a decision appears to have relatively low impact ComReg may carry out a lighter RIA in respect of that decision. The draft RIA will be finalised in the final Decision arising from this Consultation, having considered responses to this Consultation

[17] ComReg Document 07/56a, “Guidelines on ComReg's Approach to Regulatory Impact Assessment”, published 10 August 2007, available at www.comreg.ie

and stakeholders' consideration of the draft RIA.

3.2 Structure of the RIA

3.9 As set out in ComReg's RIA Guidelines, ComReg's approach to the RIA is based on the following five steps:

- **Step1:** Describe the policy issue and identify the objectives;
- **Step 2:** Identify and describe the regulatory options;
- **Step 3:** Determine the likely impact on stakeholders;
- **Step 4:** Determine the likely impacts on competition; and
- **Step 5:** Assess the likely impacts and choose the best option.

3.10 In the following sections, ComReg identifies the relevant stakeholder groups, specific policy issues to be addressed and relevant objectives (i.e. Step 1 of the RIA process). This is followed by the identification of the policy issues that need to be addressed.

3.11 ComReg then considers these policy issues in accordance with the four remaining steps of ComReg's RIA process.

Identification of stakeholders and approach to Steps 3 and 4

3.12 The focus of step 3 is to assess the likely impact of the proposed regulatory measures on stakeholders. Hence a necessary precursor is to identify such stakeholders. In this RIA, stakeholders fall into two main groups:

- Consumers; and
- Industry stakeholders.

3.13 The industry stakeholders comprise of the licensees and potential licensees of the various PMR licence types. These users span a wide range of sectors and use the various licence types to provide a wide range of use cases. In general, the industry stakeholders are the existing licensees that use the various PMR licence types and fall into the following categories:

- Transportation;
- Security;
- Manufacturing;

- Construction;
- Events Broadcasting;
- Utilities; and
- Healthcare/Retail.

3.14 The focus of Step 4 is to assess the impact on competition of the various regulatory options available to ComReg. In that regard, ComReg notes that it has various statutory functions, objectives and duties which are relevant to the issue of competition.

3.15 Of themselves, the RIA Guidelines and the Ministerial Policy Direction on Regulatory Impact Assessment[18] provide little guidance on how much weight should be given to the positions and views of each stakeholder group (Step 3), or the impact on competition (Step 4). Accordingly, ComReg has been guided by its primary statutory objectives which it is obliged to seek to achieve when exercising its functions. ComReg's statutory objectives in managing the radio frequency spectrum, as further outlined in the Legal Annex, include:

- Promote competition[19];
- Contribute to the development of the internal market[20];
- Promote the interests of users within the community[21];
- Ensure the efficient management and use of the radio frequency spectrum in Ireland in accordance with a direction under Section 13 of the 2002 Act.

3.16 In addition, ComReg is guided by regulatory principles and obligations provided for under the European Union (Electronic Communications Code) Regulations 2022, S.I. No. 444 of 2022. Such principles and obligations are outlined further at Annex 1 and include:

- Regulation 24 of S.I. No. 444 of 2022[22] permits ComReg to impose fees for rights of use, which reflect the need to ensure the optimal use of the radio frequency spectrum. ComReg is required to ensure that any such

[18] Ministerial Direction dated 21st February 2003
[19] Section 12 (1)(a)(i) of the Communications Regulation Act, 2002
[20] Section 12 (1)(a)(ii) of the Communications Regulation Act, 2002
[21] Section 12(1)(a)(iii) of the Communications Regulation Act, 2002
[22] Regulation 24 of S.I. No. 444 of 2022.

fees are objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose; and

- Regulation 4(5) (d) of S.I. No. 444 of 2022[23] which requires ComReg to promote efficient investment and innovation in new and enhanced infrastructure.

3.17 In this document, ComReg has adopted the following structure in relation to Step 3 and Step 4; the impact on industry stakeholders is considered first, followed by the impact on competition, followed by the impact on consumers. This order does not reflect any assessment of the relative importance of these issues but rather reflects a logical progression. In particular, a measure which safeguards and promotes competition should, in general, impact positively on consumers. In that regard, the assessment of the impact on consumers draws substantially upon the assessment carried out in respect of the impact on competition.

3.3 Step 1: Identify the policy issues and the objectives

Policy Issues

3.18 The spectrum available for users of the existing PMR licensing frameworks is a finite resource with many different services and users, and the radio spectrum management of these resources involves the careful consideration of a broad range of factors (e.g. administrative, regulatory, social, economic, and technical) with a view to ensuring that radio spectrum is optimally and efficiently used. This may also involve balancing a range of competing factors, including appropriately meeting the requirements of all radio services and promoting competition including ensuring that users derive maximum benefit in terms of price, choice, and quality, contributing to the development of the internal market, and promoting the interests of users within the Community.

3.19 Effective management of the radio spectrum requires more than a purely technical consideration; spectrum efficiency, functional and economic considerations must also be considered, including the extent to which the utilisation of spectrum meets a user's specific needs and the social and economic value that can be derived from it. This is particularly relevant in the current case where there are a variety of different frameworks catering for a variety of users providing different services using different technologies.

3.20 With that in mind, ComReg periodically conducts reviews of its licensing frameworks to ensure they remain fit for purpose given developments in use cases and technology. For instance, ComReg has recently completed reviews

[23] Regulation 4(5)(d) of S.I. No. 444 of 2022

of its licensing frameworks for Fixed Links[24], Satellite Earth Stations[25], Telemetry Systems[26] and Railway Mobile Radio[27]. In each case, ComReg has proposed new licensing frameworks which has provided for an increasing range of uses and technologies ensuring the more efficient use of the radio spectrum.

3.21 Regarding the various PMR frameworks, ComReg observes that some frameworks have been in place for considerable time (over 75 years in some cases) and that they have been developed sequentially to accommodate new technologies as they emerged. The licensing framework(s) for the six licence types (including fees) were established independently from one another over a more than 50-year period with the framework for Business Radio established in 1949 and Third-Party Business Radio in 2005. This means that there has been little if any consideration of how the spectrum rights of use in one licence category impacts the use of another. In that regard, ComReg notes the views of DotEcon that despite ComReg offering a broad range of licence types across the various frameworks, these licence types are no longer aligned with PMR use cases.[28]

3.22 Furthermore, the fees across all licence types in the period since they were established have not been adjusted for CPI meaning that licensees have benefited from a fee reduction in real terms over each relevant period – which raises the question of whether those fees are still effective enough to ensure the optimal use of the spectrum (e.g. are some licensees selecting some licence types because they are cheaper relative to others rather than more suitable to their requirements). There are different fee regimes for each of the PMR licence categories so it follows that any review of the frameworks should also include consideration of the level of fees to ensure that they are appropriate.

3.23 In that regard, the main policy issues to consider in this RIA, in the context of its statutory objectives, are, how best to establish a licensing framework for the PMR regime by considering (a) whether one or more licence types are still required and (b) an appropriate fee schedule for any such licence type(s)

3.24 The six licensing frameworks are summarised in Table 1.

Table 1: Overview of existing PMR licensing frameworks

[24] ComReg Document 23/61
[25] ComReg Document 23/96
[26] ComReg Document 24/25
[27] ComReg Document 25/17
[28] DotEcon Report, p30, Document 25/46a.

	Business Radio	Trunked Radio	Third Party Business Radio	Community Repeater	PMSE	Paging
Established	1949	2002	2005	1988	1949	1988
Frequency ranges used	68 - 88 MHz 155.85 – 174 MHz 450 – 470 MHz	415.7750 - 418.9875 MHz Paired with 425.7750 - 428.9875 MHz 385.0000 - 389.9875 MHz Paired with 395.0000 - 399.9875 MHz	165.5875 - 166.55 MHz Paired with 170.3875 - 171.35 MHz 453.8375 - 461.4875 MHz Paired with 460.3375 - 467.9875 MHz	68 – 88 MHz 450 – 470 MHz	Two way radio 169 MHz, 441 – 448 MHz, 455-456 MHz, 461 MHz, 465 MHz, 469 MHz Wireless microphone/in-ear 470-703 MHz, 733 - 753 MHz, 1785-1805 MHz Wireless camera 1980-2010 MHz, 2010-2025MHz, 2025 – 2110 MHz, 2170 – 2200 MHz, 2200-2300 MHz, 6.425 – 7.125 GHz, 7.125 – 7.425 GHz, 10.3 – 10.5 GHz	68 - 88 MHz 155.85 – 174 MHz 450 – 470 MHz
Duration	1 year (renewable)	1 year (renewable)	5 years	1 year (renewable)	Max 6 months	Lifetime of system usage
Service Area	On site, local area, wide area	On site, local area, wide area	National	National	On site	On site
Channel Size	12.5 kHz	12.5 kHz	12.5 kHz	12.5 kHz	12.5 kHz/200 kHz/10 MHz/ 20 MHz[48]	12.5 kHz
Fees	€22 + €22	€625 per 12.5kHz channel per base station (Year 1) €1000 (Subsequent)	€5000 per 12.5kHz channel	€12 processing fee + €625 year 1 €1,000 renewal	€12 fixed charge + €12 per piece of equipment	None
Spectrum rights of use	Shared	Shared	Iindividual	Shared	Shared	Shared
Number of live licences/permits (30 June 2025)	842	30	61	2	47	183 (permits)

Objectives

3.25 ComReg aims to design and carry out its review of the PMR licensing framework in accordance with its broader statutory objectives (as outlined in Annex 1) including the promotion of competition in the electronic communications sector.

3.26 In addition, the focus of this RIA is to assess the potential impacts of the

proposed measure(s) (see regulatory options below) on stakeholders, competition, and consumers. ComReg can then identify and implement the most appropriate and effective means by which to set a new licensing framework including an approach to spectrum fees for PMR services, while achieving its relevant statutory objectives under section 12 of the 2002 Act of promoting competition by, among other things:

- Encouraging efficient use and ensuring effective management of radio frequencies;
- Promoting regulatory predictability by ensuring a consistent regulatory approach;
- Safeguarding competition to the benefit of consumers and promoting, where appropriate, infrastructure-based competition;
- Contributing to the development of the internal market; and
- Promoting the interest of EU citizens.

3.27 ComReg notes that, in achieving its objectives, it seeks to choose regulatory measures which maximise the benefits for consumers in terms of price, choice and quality. Having identified the policy issues and objectives, ComReg now identifies the regulatory options to be assessed over the remainder of this RIA.

3.4 Step 2: Identify and describe the regulatory options

3.28 The existing PMR licensing frameworks have been in place for significant periods of time and have supported a wide variety of use cases. For this reason, ComReg will evaluate the existing licensing regimes as an option, given their utility to date, and to fully understand the impact of any change to an alternative option(s). Therefore, ComReg notes that **Option 1 is to maintain the status quo** and maintain the current frameworks and fee structures under the existing PMR licensing frameworks.

3.29 Furthermore, because those fees have not ever been updated for CPI an alternative option would be to update the existing fees for CPI. Therefore, Option 1 (b) is existing fees updated to account CPI in the period since those fees were first established.

Identifying other regulatory options

3.30 In relation to determining other potential options, it is necessary to ensure that such options could facilitate current and future use cases for Private Mobile Radio while also supporting ComReg in its objective to effectively manage the radio spectrum allocated to Private Mobile Radio.

3.31 As outlined above, the two main policy issues are (a) whether one or more licence types are still required and (b) what is an appropriate approach to setting fees for any such licence type(s). ComReg considers these in turn below to determine other regulatory options because options which require more licences than necessary and/or have an inappropriate approach to setting fees would not be valid regulatory options.

(A) Are one or more PMR licence types still required?

3.32 As discussed previously, the existing frameworks were developed in separate processes over a substantial period of 50 years or more. While these frameworks have facilitated users in delivering a variety of use cases, ComReg notes that the frameworks may no longer be best aligned with the use cases that exist for PMR today and that there may be room for consolidating licences into one or more frameworks.

3.33 Following engagement with stakeholders, DotEcon notes that the stakeholders typically require PMR licences to provide the following use cases:

- **On-site communication:** such as talkback systems used at factories, retail, hospitals and construction sites;
- **Wide-area communication:** such uses include transportation, logistics companies, emergency services and search and rescue operations.
- **Events and broadcasting:** used in wireless devices for the production of events and for broadcasting.
- **Telemetry and control**: generally used by utilities companies to monitor and report back to a command centre frequent readings and critical operating information.
- **Paging** which allow the use of paging systems to provide for the sending of a one-way digital coded signal to a paging receiver.

3.34 Third Party Business Radio users also tend to cater for the same use cases with licensees often interested in that licence type because it offers individual rights of use to channels. Recent data gathered by ComReg shows that these licences are typically used to deliver on-site usage across different parts of the country. This points to a likely need for a more regional licence with the possibility for individual rights of use where required. Future requirements for a national licence should be supported by a rollout plan.

3.35 Each of these use cases have varying requirements in terms of bandwidth, types and quantities of equipment (e.g. hand portables, repeaters, base stations) and geographic scope etc. Within all these use cases there is

significant overlap between the spectrum, equipment, channel size and technical conditions across each of the different licence types and there is no apparent reason why these requirements cannot be satisfied across a single licence type.

3.36 This is supported by the fact that the ECC Decision documents[29] currently applicable to PMR are technology neutral and common ETSI standards cover multiple types of equipment. Alignment with best practice throughout Europe would not require different types of PMR systems/equipment to be covered by a separate licence type. In that regard, DotEcon notes there does not appear to be any prevailing need for licence types to be tied to specific types of PMR technology to deliver the above use cases.[30] This points to a need for a consolidation of licences to better ensure the efficient management and use of the radio spectrum.

3.37 While potential licensees will likely have different requirements, for example in terms of geographic scope, bandwidth and duration, there is no reason why these requirements cannot be satisfied under a single licensing framework. The notable difference is PMSE which, under the current framework, a licence is only available for a maximum duration of six months on a secondary basis and makes use of additional frequency ranges in addition to the UHF and VHF bands. Furthermore, the duration required by PMSE Licensees can be anything from a few days to six months meaning a uniform duration (e.g. one year, five years etc) as would be appropriate for other uses is unlikely to be suitable for PMSE.

3.38 A consolidated PMR licence would enable licensees to apply for a licence that is best aligned with their PMR needs and would lend a high degree of flexibility for a framework to be able to suitably adapt to any use cases for PMR that may emerge in the future. The potential benefits of such an approach in relation to spectrum efficiency are discussed in Paragraph 3.99 to 3.109 below. As such, ComReg considers that the basis for any alternative options should be through a PMR licence that would consolidate the existing licensing frameworks for Business Radio, Third Party Business Radio, Trunked Radio, Community Repeaters and Paging.

3.39 However, for the reasons outlined above, ComReg is of the view that it would be appropriate to retain a separate licence type for PMSE for the following reasons:

[29] For example, ECC Decision (19)02 and ERC Recommendation 25-08– On land mobile systems in the VHF and UHF bands; ECC Decision (15)05 – On PMR 466 applications and EC Decision 243/2012/EU – Establishing a multiannual radio spectrum policy programme.
[30] DotEcon Report p.30, Document 25/46a.

(i) PMSE users require access to additional frequency ranges for specific radio equipment, e.g. wireless cameras, wireless microphones, and in-ear monitors that the users of the other PMR frequencies do not; and

(ii) The events for which PMSE licensees provide communication services for the most part, take place over very short periods of time i.e. days for concerts. Some licensees provide services for longer durations (i.e. TV/film productions). This is reflective of the different usage requirements of PMSE licensees.

3.40 Therefore, ComReg is of the preliminary view that a consolidated PMR licence (which would now include paging) and a separate PMSE licence are required, and any regulatory options assessed in this RIA should facilitate same.

(B) What is an appropriate approach to setting fees?

3.41 Fees can play an important role in ensuring that licensees use the spectrum resource efficiently and supports ComReg in its function of ensuring the effective management of the spectrum resource. Regulation 24 of S.I. No. 444 of 2022 permits ComReg to impose fees for rights of use that reflect the need to ensure the optimal use of the radio frequency spectrum. In addition, ComReg is also required to:

- ensure that any such fees are objectively justified, transparent, non-discriminatory and proportionate in relation to their intended purpose; and

- consider the objectives of ComReg as set out in Section 12 of the 2002 Act and the general objectives of the Directive and S.I. No. 444 of 2022.[31]

3.42 There are various methods of determining spectrum fees and some approaches (or a combination of approaches) are likely to be more suitable than others. ComReg does not favour any one process for determining an appropriate approach to fees. As a matter of principle, it decides the most appropriate process in each individual case. Each approach will typically have its advantages and disadvantages, and one process may, on balance, be found to be the most suitable in light of the circumstances, including the characteristics of the spectrum to be assigned, the types of rights of use to be assigned and the anticipated demand for the spectrum.

3.43 As previously mentioned, ComReg has recently conducted reviews of other

[31] Among other things, these include the promotion of competition in the provision of electronic communications networks and associated facilities, including efficient infrastructure-based competition, and in the provision of electronic communications services and associated services.

licensing frameworks and carried assessments of fee regimes for each. For each of those reviews, ComReg considered the relevant circumstances in each case to determine the most appropriate approach to setting fees:

- In the Fixed Links licensing review, ComReg determined that it was appropriate to adopt an approach that sets fees that are reflective of opportunity cost which should encourage licensees to utilise the spectrum more efficiently, including incentivising the return of unused or underused spectrum.[32]

- In the Satellite Earth Station licensing review, ComReg found that the circumstances were materially different[33] to fixed links such that an approach based on the recovery of ComReg's administrative costs for licensing SES was the most appropriate approach.[34]

- In its review of the Telemetry licensing regime, ComReg determined that the existing framework for telemetry was effective and that the existing fee regime should remain in place, with the only change being a CPI adjustment which is in line with ComReg's best practice for determining licence fees for spectrum.[35]

- In its review of the Railway Mobile Radio regime, ComReg determined that that the spectrum fees for RMR should be based on long-run opportunity cost as this would accord with ComReg's statutory objective of encouraging the efficient use and ensuring the effective management of spectrum in addition to setting conservative fees that are reflective of opportunity cost to ensure Irish Rail are not unduly discouraged from rolling out services.[36]

3.44 ComReg endeavours to ensure a consistent regulatory approach across each of these relatively recent licensing reviews.

3.45 In the context of PMR, ComReg notes that the current regimes have different fee structures, and a policy option based around a consolidated PMR licence would mean that one approach to setting fees would be applicable to all users of PMR. In relation to PMSE, ComReg agrees with DotEcon that it would also be appropriate to closely align the fee regime for PMSE with the regime proposed under a consolidated licence approach.[37] This would be similar to the

[32] ComReg Document 23/61.
[33] The comparatively lower demand for SES, in addition to the low interference and scarcity risks resulted in ComReg determining that administrative cost approach was appropriate.
[34] ComReg Document 23/96
[35] ComReg Document 24/25
[36] ComReg Document, 25/17
[37] DotEcon Report, p.46, Document 25/46a.

approach taken with the existing fee schedule for PMSE which is based on the existing fee schedule for business radio licences.

3.46 At a high-level, there are broadly two approaches to setting spectrum fees:

- **Opportunity cost based:** The opportunity cost of the radio spectrum is the value associated with the best alternative use that is denied by granting access to one user rather than to the alternative.
- **Administrative cost recovery:** a minimum requirement for fees is that ComReg recovers its administrative costs associated with managing spectrum licences.

3.47 Clearly, there is a sequencing in determining the appropriate fees approach. If it is the case that the spectrum can be used freely, or relatively freely, across alternative potential users over a sufficiently long period, then an approach based on the recovery of administrative costs is likely to be appropriate. In this circumstance, no further consideration of alternative approaches would be required because there would be no opportunity cost that needs to be reflected in fees because other users are not precluded. An administrative cost approach often serves as a floor for fees because even where no scarcity issues are evident, there may also be a need to provide licensees with the correct incentives to use the spectrum efficiently than would be the case with simply administrative cost recovery.

3.48 Therefore, it follows that, prior to setting out the regulatory options available to it, ComReg must first assess the extent to which issues of scarcity could arise in the licensing of frequencies for PMR.

Assessment of spectrum scarcity for PMR

3.49 ComReg notes that to date there have been no issues of spectrum scarcity preventing operators from obtaining licences for their desired frequencies. This is primarily due to the usage characteristics of PMR:

- First, on-site and wide-area PMR users (e.g. business radio, trunked radio) are geographically confined, and operators should not cause interference with other geographically defined licences when in compliance with the technical conditions of their licence.
- Second, most PMR licences operate as shared use and employ coordination techniques, such as tone control, to use the same frequencies in overlapping areas without causing interference to other PMR users.

3.50 While a high proportion of PMR licences are concentrated in the Dublin area,

there is considerable scope for reuse of frequencies without denying access to other users. DotEcon notes that where interference has been observed between PMR users, it is primarily due to operators failing to meet the technical conditions specified in their licences rather than an issues around excess demand.[38]

3.51 ComReg agrees with DotEcon's finding that there are no general trends in PMR demand that suggest spectrum scarcity will emerge. ComReg notes DotEcon's view that some emerging technologies such as push to talk over cellular (PoC) using mobile networks to provide similar services could reduce demand. However, there has been no indications at this time from PMR operators that they might migrate to this technology.

3.52 ComReg is of the view that demand for PMR licences will continue to provide communications across various sectors of society. ComReg does not envisage, at this point in time, significant changes to demand in the near future. However, some types of narrowband systems may be replaced by wideband systems over time in certain sectors such as transport, industry, and manufacturing to meet greater data bandwidth requirements. This could result in a migration from one type of licensing regime to another such as PMR to WBB LMP.

3.53 In relation to the Third-Party Business Radio licensing regime, ComReg notes that the supply of available channels was exhausted at the end of the last application round. While some of those licences have since been cancelled, ComReg agrees with DotEcon that the demand for national licences demonstrates there is potential for scarcity to arise if many users were to demand access to national licences.[39] ComReg agrees with DotEcon that the potential for scarcity among users of PMR spectrum is likely to be low and an opportunity cost-based approach, would not likely be appropriate in this circumstance.

3.54 While a consolidation of licence types would help support this outcome by providing licensees with a higher degree of flexibility than under the existing frameworks, ComReg notes the views of DotEcon that any fee regime attached to this framework should create the correct incentives for users to select a licence that best fits their specific requirements and minimise the potential for artificial scarcity to arise.[40] In such cases, fees should incentivise potential users to assess its actual need for spectrum and select the most appropriate spectrum band from a range of alternatives. Therefore, ComReg's approach is to recover the administrative costs of licensing PMR but also provide the correct incentives for licensees to apply for a licence only for what they require

[38] DotEcon Report p.28, Document 25/46a
[39] DotEcon Report p.23, Document 25/46a.
[40] DotEcon Report p.40, Document 25/46a.

to serve their use case(s).

3.55 In the section that follows, ComReg considers the factors that should be used to best ensure efficient use by encouraging users to only apply for rights of use that meet their requirements but not beyond.

Factors that could be used to determine fees under a consolidated licence approach.

3.56 Under the existing PMR framework, fees are determined based on a variety of factors specific to each licensing framework. However, under an approach that is based on a consolidated PMR licence type, there would to be one approach to setting fees that would apply to all licensees. Therefore, before ComReg can assess any policy options, it must first carry out an assessment of what factors would be appropriate to determine how fees may be charged for PMR under a consolidated licence approach.

3.57 ComReg considers that a pragmatic approach would be to first assess the extent to which any elements of the existing fee structures associated with each of the current frameworks could be appropriate for determining fees as part of a consolidated licence approach. This assessment is set out below.

Equipment

3.58 Equipment is a feature of determining fees in three of the existing frameworks:

- The Business Radio framework where licence fees are based on the number of pieces of equipment used by the licensee;
- Trunked Radio, where the number of base stations included in the licence is used to determine licence fees; and
- The PMSE framework, where licence fees are based on the number of pieces equipment charged at half of the rate charged under the Business Radio framework.

3.59 An effective fee mechanism should encourage the most efficient use of the radio spectrum and facilitate the various use cases considered necessary under a consolidated PMR licence. However, a fee regime which includes an equipment charge could risk disincentivising licensees to use the limited spectrum resource to its maximum potential if it becomes inefficiently costly to use the optimal amount equipment on the network. (i.e. an equipment-based approach).

3.60 Charging per piece of equipment reduces the incentives to use spectrum more efficiently because it increases costs proportionally with each additional piece

of equipment, potentially discouraging certain users (e.g. third-party business radio) from deploying the optimal amount of equipment needed for the efficient use of the spectrum because the total cost could become excessive and disproportionate.

3.61 In particular, Third-Party Business Radio users would be significantly disadvantaged by using a per-equipment based approach because as noted by DotEcon it would place an administrative burden on third-party operators and would be difficult to set at a level that meaningfully differentiated between different amounts of equipment without the risk of undermining some third-party provider business cases.[41] This effectively precludes charging per piece of equipment under a consolidated PMR licensing approach.

3.62 Conversely, the removal of per piece of equipment-based charging would not impact the efficient use for users that were formally charged on that basis because other factors such as geographic scope can adequately ensure the efficient use because any geographic area that an operator needs to cover needs to be served by a minimum set of equipment. As noted by DotEcon, we see no strong need to maintain the per equipment charges that apply to other licence types, noting, for example, that the effect of per base station charges to trunked radio operators might already be achieved by charging based on coverage area.

3.63 Therefore, ComReg is of the preliminary view that, in assessing a policy option under a consolidated PMR licence approach, it would not be appropriate to consider an equipment charge in the determination of fees as part of that assessment.

Geographic scope

3.64 Under the current regime, the geographic scope of the existing PMR framework includes on-site (<1km), Local area (<12.5km), Wide area (<25km) and national licences. Third Party Business Radio licensees are the only licensees that can be assigned a national licence under the existing frameworks. The other licensing frameworks can only operate within a subnational area (i.e. on-site, local area, wide area) as specified in the licence conditions.

3.65 To best provide for efficient use, it is essential that the geographic scope of a licence aligns with the usage/coverage area required by a licensee. Not accounting for the geographic scope of a user's requirements could have the undesired effect of:

[41] DotEcon Report, p.41, Document 25/46a.

(a) licensees inefficiently applying for larger areas that they do not need, thereby impeding access to other potential users and increasing the potential for scarcity in the future; and

(b) pricing off licensees that only require rights of use across a defined area (e.g. on site) but would need to pay the price of a national or wider area licence.

3.66 Therefore, ComReg is of the view that, in assessing a policy option under a consolidated PMR licence approach, it would be appropriate to consider a geographic scope/coverage in the determining fees as part of that assessment.

Channels

3.67 The spectrum available for PMR is finite and, notwithstanding the risk of scarcity being low, not including the number of channels or total bandwidth in the determination of fees would not be conducive to creating the appropriate incentive for users to only use the spectrum or bandwidth that they need. Absent such a consideration, licensees would likely apply for more spectrum than necessary increasing the risk of future scarcity.

3.68 Therefore, ComReg is of the preliminary view that, in assessing a policy option under a consolidated PMR licence approach, it would be appropriate to consider a charge per channel size in the determination of fees as part of that assessment.

Individual rights use of the spectrum

3.69 Third Party Business Radio is the only framework where licensees have individual rights of use for the channels licensed to them on a national basis. This is also in part because they are licensed spectrum on a national basis meaning that it would not be possible for other users to get access to the same frequencies. The other current PMR licensing frameworks involve users having shared rights of use to the different frequency bands available for PMR and this has meant that frequencies can be re-used by multiple users.

3.70 ComReg notes from the stakeholder engagement that there is demand for the exclusivity offered by the Third-Party Business Radio framework. In 2025, ComReg consulted on the reopening of that regime for applicants.[42] While the need for individual rights of use is currently linked to the national licences under the Third-Party Business Radio regime, a consolidated approach would also facilitate use cases that value individual rights of use over a smaller geographic footprint.

[42] ComReg Document 25/29 – Response to Consultation and decision on Re-opening the Third-Party Business Radio licensing regime: Response to Consultation and decision – published 22 May 2025.

3.71 Therefore, ComReg is of the view that, in assessing a policy option under a consolidated PMR licence approach, it would be appropriate to consider an exclusivity charge for individual rights of use in the determination of fees as part of that assessment

Conclusion

3.72 Given the above, ComReg is of the preliminary view that a valid regulatory option would be a consolidated PMR licence (including paging) with fees primarily based on administrative cost but also encourages more efficient use determined by reference to the geographic scope, channels and spectrum rights of use that a potential licensee would require.

3.73 Therefore, ComReg considers that the three regulatory options available to it are:

- **Option 1** – Maintain the existing licensing frameworks and make available all PMR frequencies on the same basis as detailed in each of the existing fee schedules.
- **Option 1(b)** – The same as Option 1 except fees would be updated to account for the change to the Consumer Price Index (CPI) in the intervening periods since the last updates to fees were made.
- **Option 2** – Make available all rights of use through a consolidated PMR licence (including paging). This option would involve consolidating five of the existing frameworks into one single PMR licensing framework with fees based on administrative cost set by reference to Channels, Geographic scope and individual rights of use. Fees would be annually updated for CPI.

3.74 Option 2 is set out in more detail in Annex 2 including the proposed variables that would be attached to each of factors used to determine fees under a consolidated licensing approach.

3.75 Under Option 2, ComReg would closely align the fee regime for PMSE with that of the consolidated PMR licence.

3.5 Step 3: Impact on Stakeholders

3.76 This section provides information on the impacts on industry stakeholders (as outlined in Section 1.4) arising from the regulatory options above.

3.77 ComReg notes that there are two broad categories of impacts relevant to this section:

- First, the impacts arising from how rights of use are assigned in each of the regulatory options (i.e., “Assignment Impacts”); and
- Second, the impact of the regulatory option on spectrum fees paid by Existing Licensees or would be paid by future licensees (i.e., “Financial Impacts”)

Assignment Impacts

3.78 Assignment Impacts refers to impact on licensees arising from how ComReg assigns spectrum rights of use. The choice of preferred option can impact an operator’s ability to obtain the rights of use necessary to satisfy efficient demand and deliver one or more of its use cases. Generally, these impacts can arise where licensees are unable to obtain rights of use necessary to deliver their use cases, and/or where there is uncertainty about future fees and the extent to which they may change. For example, there are assignment impacts arising from the fact that the requirements that users have are not fully aligned with the existing PMR frameworks.

3.79 As discussed, each existing PMR framework currently has different approaches to the assignment of spectrum (including fees) and there are some features that are only applicable to certain frameworks. Under Option 1 or Option 1 (b), there is a risk that a licensee could apply for a licence that does not fully align with their specific requirements. For instance, if a user requires individual spectrum rights of use on a non-national basis (stakeholder engagement indicated support for such a provision), there is no existing framework that supports such a use case. Similarly, if a user requires nationwide access to spectrum but does not require individual spectrum rights of use, a Third-Party Business Radio licence is the only licence type that could facilitate such a use case under Option 1 or Option 1(b).

3.80 However, the use of the third-party business radio framework for such use cases is inefficient because the geographic scope is too large for non-national use cases and exclusivity may not be required by all potential licensees. Therefore, under Option 1 or Option 1 (b) some licensees would be assigned spectrum rights of use beyond the geographic scope of their requirements or be granted exclusivity when it is not required by the user. Further, a Third-party Business Radio licensee may not require the licence to provide services to third parties, but rather it is required to meet their own communications requirements.

3.81 Misalignment between current use cases and licensing frameworks was raised during the stakeholder engagement and it mainly arises due to legacy effects associated with the annual renewal of licences (e.g. many licensees have applied for licences under certain frameworks because they are simply

renewing the same licence every year as a matter of practice). The stakeholder engagement supports the view that some licensees hold licences not because of an assessment of what their exact needs are and how they have changed over time but because it is easier to simply renew an existing licence. For example, some trunked radio users could potentially use the business radio framework except it currently does not accommodate trunked use cases which has a different fee schedule.

3.82 Under Option 2, operators would be able to determine what their exact PMR requirements are and then apply for a licence that is more precisely aligned with their use case through a single consolidated framework (e.g. the licence would be provided based on the licensees' exact requirements across, bandwidth, geographic scope, exclusivity, third party use etc). This would remove the gaps between the existing frameworks and would better support existing use cases already provided for under the existing frameworks, while also facilitating new use cases that cannot be facilitated under the current regimes.

3.83 Therefore, ComReg is of the preliminary view that based on assignment impacts stakeholders would likely prefer Option 2 over Option 1 and Option 1 (b).

Financial Impacts

3.84 Under Option 1 there would be no change in the financial impacts faced by stakeholders as the fees across the various licence types would remain the same.

3.85 The remainder of this section assesses the financial impacts of Option 1 compared to Option 1 (b) and Option 2.

Option 1 v Option 1 (b)

3.86 The existing PMR licence fees are not annually updated to account for CPI. Therefore, the financial impacts that would arise under Option 1 (b) would amount to the % increase/decrease in the CPI in the intervening periods since the frameworks have been last reviewed. As noted previously, the various PMR frameworks were introduced at different times and have been in place for considerable durations. In the case of Business Radio, PMSE and Community Repeaters, the governing regulations predate the adoption of the Euro in Ireland and the fee regimes for each of these frameworks were converted from the Irish Punt to reflect the equivalent value in Euro from January 2002.[43]

3.87 See Table 2 for the percentage change across each licence type. In summary,

[43] Euro Changeover (Amounts) Act, 2001

the total fees paid by Existing Licensees would increase by approximately 52% or €320,000 per annum under Option 1 (b). The change in the CPI under Option 1 (b), using the latest available data at the time of publication[44], would result in licence fee increases of the following:

- 57.2% for Business Radio, Community Repeater and PMSE;
- 52.1% for Trunked Radio; and
- 39.1% for Third Party Business Radio.

Table 2: Changes to the CPI for each licensing framework

	Commencement	CPI Change[45]
Business Radio	January 2002	57.6%
Trunked Radio	August 2002	52.6%
Community Repeaters	January 2002	57.6%
Third Party Business Radio[46]	October 2005	39.5%
Paging	n/a	n/a
PMSE	January 2002	57.6%

Option 1 v Option 2

3.88 To assess the financial impact of Option 2 on Existing Licensees, ComReg has conducted a comparative analysis of the fees paid by those licensees compared to Option 1. The assessment that follows is necessarily static and is conducted to highlight possible impacts, noting that final fees paid by Existing Licensees would depend on choices made by those licensees in determining how to dimension their PMR networks in the future.

3.89 Total fees for Existing Licensees under Option 2 would increase by approximately €60,000 per annum annually compared to Option 1a. This increase in overall fees is not universal because some licensees would experience a decrease in fees while others would experience an increase. However, this increase would be approximately €260,000 lower compared to

[44] CPI data available to December 2025.

[45] CSO CPI Inflation Calculator. See Interactive Data Visualisations | CSO Ireland

[46] ComReg reopened the TPBR licensing regime on 1st September 2025 and all new licences issued will expire on 29 September 2030. Any adjustment for CPI under this option would only take effect after the expiry of licences.

Option 1b which updates existing fees for inflation as set out in the Table 2 above.

3.90 Under Option 2, any financial impacts (whether an increase or decrease) would be dependent on the number of channels used, the geographic scope and whether the spectrum is assigned with individual rights of use or not. It is not possible to outline each of these impacts individually, given the prevailing confidentiality concerns. Notwithstanding, it is informative to note the % increases and decreases across each of the existing licence types given that stakeholders typically fall under these categories. In summary:

- The median on-site Business Radio user would experience an increase on average of around €61 per licence.
- Trunked Radio Licensees would experience a decrease on average of around €5,600 per licence.
- Third Party Business users would experience an increase on average of around €2,900 per annum.
- Community Repeater users would experience a decrease of approximately €700 per annum.
- Paging would now fall under a consolidated PMR licence and the average fee for a licence would be €263 per annum (this would depend on the number of channels used, the geographic scope and whether the channel(s) are assigned with individual rights of use or as shared rights of use).

3.91 Business Radio and Trunked Radio users (who are currently charged on a per equipment basis under Option 1) are likely to prefer Option 2 because their licence fee would not increase with each piece of equipment used on the network. This is particularly likely to be the case for operators who have a large quantity of equipment operating on an on-site basis network using shared spectrum. The removal of equipment-based charging means that licensees that previously used a large amount of equipment would face the largest fee reductions.

3.92 Licensees with smaller amounts of equipment under the current Business Radio framework (i.e. less than 8) would likely see a rise in fees compared to Option 1. However, any increase would be small (i.e. in the order of tens or hundreds of euros) and such operators may offset any increase against the flexibility that Option 2 would bring as operators would not need to make any licence amendments or pay additional fees should they require additional equipment at any stage over the duration of their licence.

3.93 Third-Party licensees that require national licences with individual spectrum rights of use are likely to prefer Option 1 over Option 2 because such licences would experience a €2,900 increase in fees per annum under Option 2. This increase primarily arises from the need for fees to reflect the individual and geographic nature of the spectrum rights of use under Option 2. To date such licences have been made available for a relatively modest €1,000 per annum and have not been updated in over 20 years. However, as noted earlier, some of these licensees may not require national licences with individual spectrum rights of use. Under Option 2 such licensees would now be able to tailor their licence to suit their requirements such that the fees paid may be less that what is currently under the case under Option 1 or Option 1 (b).

3.94 In September 2025 ComReg reopened the TPBR licensing regime for a final time to facilitate the continuation of services currently operating under the regime while ComReg consults on a new PMR licensing framework. As such, any financial impacts for Third Party Business users would not occur until the proposed expiry of those licences. (i.e. those licensees most impacted would have nearly 5 years notice if assigned a new licence under that framework).

3.95 Having considered the assignment and financial impacts associated with both Options, ComReg is of the preliminary view that, on balance, stakeholders are likely to prefer Option 2.

3.6 Step 4: Impact on Competition and consumers

Impact on competition

3.96 There are different elements to competition that are relevant in determining the impact of any of the preferred options. There is a natural overlap between the aims of the fee methodology and an assessment of ComReg's compliance with some of its statutory obligations, particularly that of promoting competition, in accordance with Section 12 of the 2002 Act. These include:

- Encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources[47] ("Efficiency and Spectrum Management"); and
- Promoting efficient investment and innovation in new and enhanced infrastructures[48]("Efficient Investment"); and

3.97 ComReg provides its assessment of each below.

[47] Section 12(2)(a) of the 2002 Act
[48] Section 12(2)(a) of the 2002 Act

Efficiency and effective management of radio spectrum

3.98 ComReg's spectrum management role requires that operators with spectrum assignments are incentivised to efficiently use those spectrum assignments. Given the requirements of users across bandwidth, geographic scope and exclusivity, there are three main areas governing the efficient use of spectrum under this aspect of competition.

(i) the geographic scope of a licence should not extend beyond the area necessary to meet its intended use of the spectrum.

(ii) the approach to fees should incentivise spectrum sharing to avoid potential scarcity. (i.e. if operators have rights of use beyond their needs or inefficiently use licences with individual spectrum rights of use when the frequencies could be shared).

(iii) Fees should not be sufficiently different across similar use cases (i.e. users that require similar bandwidth and coverage should have broadly similar fees).

(iv) Licensees should be incentivised to only apply for bandwidth that is sufficient to satisfy their requirements.

3.99 In relation to (i) and (ii), under Option 1 and Option 1 (b), licensees are unable to match their requirements to the geographic scope and/or their exclusivity requirements across certain licence types. For example, Third Party Business Licences are national licences with individual spectrum rights of use and with no scope for any further specificity across either the geographic scope or the extent of sharing (i.e. individual spectrum rights of use or not). For example, a licensee can only obtain a licence with individual spectrum rights of use across a national area and there is no flexibility under Option 1 to provide a non-national licence individual spectrum rights of use or a national licence with shared rights of use.

3.100 This means if a licensee requires exclusivity to provide for its use case, it can only obtain a national licence when a licence across a smaller geographic would have better suited their requirements and been a more efficient use of the radio spectrum. In such cases, licensees either must obtain a licence beyond its geographic or sharing requirements or decide not to apply for a licence at all. Neither outcome best ensures the efficient use of the spectrum because a licence is either assigned inefficiently beyond the licensees' requirements or not at all denying a valid use of the spectrum because the licensing framework was not sufficiently flexible.

3.101 Under Option 2, consolidating licences enhances spectrum efficiency by enabling licensees to apply for a single licence that best aligns with their operational needs. This reduces the inefficiencies of using multiple different

licences across different spectrum assignments, allowing operators to optimise network performance and minimise potential interference with other users. A consolidated licence ensures more effective use of a finite resource by streamlining assignments to better match demand, improving network capacity and supporting innovative services while maximising the overall utility of available frequencies.

3.102 Alternatively, under Option 2, all licensees would be able to apply for a licence that best represents the geographic area required to cover its use (i.e. national, local, wide area etc) and whether access to the spectrum is individual or shared with other PMR users. This clearly represents a more efficient use of the radio spectrum because Option 2 provides more flexibility to cater for a potential licensee's requirements across bandwidth, geographic scope and the need for exclusivity (or not).

3.103 In relation to (iii), under Option 1 and Option 1(b), there would be no consistent approach to determining fees which means that licensees are charged different fees for accessing spectrum through the different frameworks, despite technical conditions being largely similar. The approach to setting fees is different across each of the frameworks because they were designed independently and licensees may select a licensing framework (e.g. business radio) based on the fees charged, rather than on whether the licensing framework best suits its requirements in terms of the use of the spectrum.

3.104 For example, it is likely that some licensees would prefer trunked radio but may instead use the business radio framework purely because the fees for trunked radio are significantly higher owing to the €625 per channel per base station charge (compared to €22 per piece of equipment plus a fixed charge of €22 for the duration of the licence for business radio). Such scenarios would not support efficient use, particularly given that trunked radio aims to be an efficient way of sharing a pool of channels between users and its use could potentially be discouraged under Option 1. As previously discussed, such scenarios arises because the frameworks under Option 1 were developed independently of one another over a more than 50-year period.

3.105 Alternatively, under Option 2 fees are primarily determined based on administrative cost recovery given a licensee's requirement across, bandwidth geographic scope and sharing requirements. The fees associated with any use type increase in line with those usage requirements regardless of the underlying technology used by the Licensee. In this way, potential licensees do not need to consider fees in determining how (or what technology) is used to support their requirements. Such an approach also better supports ComReg's position that the licensing of radio spectrum in Ireland is technology and service neutral. In that regard, ComReg agrees with the views of DotEcon that the structure of fees and the assumptions used to distribute costs must reflect that

the types of consolidated licence that would be taken up and that fees approach under Option 2 would better encourage users to best determine their requirements and only apply for licences specific to their requirements.

3.106 In relation to (iv), the use of bandwidth as a factor simply means that the more bandwidth that is used the higher the associated spectrum fee.

3.107 Under Option 1, fees rise in line with increases in bandwidth for Trunked radio only (i.e. the fee for a 25 kHz is twice that of a 12.5 kHz channel) – for all other licence types of Licences higher bandwidths are either unavailable or users are assigned several 12.5 kHz channels. Alternatively, under Option 2, the formula approach applies to the fee per 2 x 12.5 kHz channel. Other channel widths and unpaired channels are also permitted (unlike Option 1) and will be charged the same price per kHz, meaning an unpaired 12.5 kHz channel pays half this fee, as does a paired 6.25 kHz channel, while a paired 25 kHz channel pays double. If a licence covers multiple channels, this formula applies to each channel and the channels fees are added together to give the licence fee.

3.108 Given the above, ComReg is of the preliminary view that Option 2 best promotes the efficient use of the radio spectrum.

Efficient investment

3.109 Creating the conditions for promoting efficient investment and innovation in new and enhanced infrastructure involves ComReg exercising its regulatory functions in an appropriate and predictable fashion, thus providing regulatory certainty. Any option should provide certainty that the regulatory framework, which often underpins investment decisions, will not change unnecessarily and require operators to make subsequent and additional investments and/or changes to their network.

3.110 Promoting competition and encouraging efficient investment, in ComReg's view, means allowing for a cost-effective deployment of PMR services and preventing inefficient duplication of investment caused by predictable changes to the regulatory regime. With that in mind, it is important that any option considers the likely long run development of the market to avoid future changes to the regulatory framework that could have been foreseen or give rise to additional cost.

3.111 Under Option 1, investment in the PMR network to date has largely been effective and efficient given the benefits to consumers and competition. However, it is unlikely that this option can persist in the long run because each of the PMR licensing frameworks are linked to use cases which were developed over 20 years ago and DotEcon's assessment of use cases shows that these use cases are no longer aligned with the existing framework. Over

time, it is likely that potential licensees will find it increasingly difficult to roll out their preferred network due to the misalignment between the existing frameworks and their requirements. As previously discussed, Option 1 limits the extent to which potential licensees can be assigned rights of use that match their requirements across bandwidths, geographic scope and exclusivity.

3.112 Alternatively, under Option 2 fees are primarily determined based on administrative cost recovery given a licensee's requirement across, bandwidth geographic scope and its sharing requirements. In this way, licensees can match their requirements with the type of spectrum assignment that they require, thereby promoting efficient investment choices. As noted by DotEcon, certain types of licence are not currently available under Option 1 but will be under the consolidated licence such as national shared use licences, or regional licences that are individual or support third party provision (under Option 2). Additionally, under Option 2, fees are based on administrative cost recovery, thereby not inefficiently choking off demand for smaller users.

3.113 Therefore, ComReg is of the preliminary view that Option 2 would better encourage efficient investment and innovation by allowing operators to deploy services best aligned with their needs.

Conclusion on impact on competition

3.114 Based on the assessment above, ComReg is of the view that Option 2 best promotes competition.

Impact on consumers

3.115 ComReg considers that as consumers are not direct users of PMR systems, it would be appropriate to consider the impacts on consumers in the context of ensuring that spectrum rights are efficiently used to facilitate the effective deployment of PMR use cases used by industry stakeholders, which in turn provide goods and services that consumers are likely to value. In that sense, ComReg considers that the primary consumer impacts to be considered are how the policy options impact inputs to downstream services which are valued my consumers.

3.116 Further, it can be generally assumed that what is good for competition, and what promotes investment in infrastructure, is, good for consumers. This is because increased competition between operators brings benefits to their customers in terms of price, choice and quality of services. In that regard, options that are good for competition are likely to be good for consumers. For example, consumers are likely to prefer those options which maintain or improve services and while at the same time not deterring entry or efficient investment. With that in mind, ComReg reminds the reader that Option 2 is preferred in terms of the likely impact on competition.

3.117 It is useful to briefly set out why the efficient assignment of PMR rights of use across a range of bands and services which are not directly used for downstream services is an important issue for consumers, as it will affect the choice, price, and quality of the electronic communications service that ultimately are made available to consumers.

3.118 The efficient assignment and use of PMR rights of use is important for consumers because these systems serve as inputs into essential services that consumers rely on. PMR enables reliable, secure and cost-efficient means of communications public safety, public and private transport (e.g. bus and taxi), logistics and critical infrastructure (e.g. utilities and construction). The efficient assignment of these rights of use minimises interference thereby helping to ensure that these industries can operate effectively, delivering timely and dependable services that consumer scan rely on and that enhance consumer safety, convenience and economic productivity. Inefficient assignment could lead to communications failures, delays, or increased costs ultimately impacting the quality and affordability of consumer facing services.

3.119 As discussed previously, the existing frameworks under Option 1 have been developed for old and possibly outmoded use cases. While consumers value the services that these frameworks have helped to deliver, the flexibility provided by Option 2 would better facilitate existing and future use cases by best allowing operators to deploy services best aligned with their communications needs. Additionally, as Option 2 is primarily based on the recovery of ComReg's administrative costs, the distribution of costs should not inefficiently choke off demand from smaller users.

3.120 With that in mind, ComReg is of the view that consumers are likely to prefer Option 2.

3.6.2 ComReg's preferred option

3.121 This RIA considers a number of regulatory measures available to ComReg within the context of the analytical framework set out in ComReg's RIA Guidelines (i.e., impact on industry stakeholders, impact on competition and impact on consumers).

3.122 In light of the above, ComReg is of the preliminary view that Option 2 is preferred in terms of the impact on stakeholders, competition and consumers mainly because it is the Option that best provides for the provision of all use cases referred to in this consultation and appropriately weights the burden of administrative costs on those users most likely to benefit from the deployment of those costs.

Chapter 4

4 Setting Fees for PMR

4.1 Introduction

4.1 In its RIA, ComReg set out its preliminary view that Option 2 was its preferred approach to setting fees for PMR. This option would set fees to at least recover ComReg's administrative costs of managing the framework for PMR licensing while encouraging the efficient use of the radio spectrum through the distribution of costs drawing on the following parameters:

- The number of channels used;
- The coverage area of the licence; and
- Whether the spectrum is licensed with individual spectrum rights of use or shared use.

4.2 This chapter provides a formal description of the formula used to calculate fees under Option 2. Further, it outlines the values for each parameter under that option and provides a preliminary assessment for each value. ComReg will make available an Assessment Tool on request for existing licensees to the extent to which fees could change because of ComReg' proposed option.

4.2 Description of formula

4.3 To implement this administrative cost fee schedule, ComReg proposes to use the following formula:

$$\mathbf{F(c, E)} = \boldsymbol{\alpha}[\mathbf{1} + \boldsymbol{\beta}\mathbf{c}]\,\boldsymbol{\gamma}^{\boldsymbol{E}}$$

4.4 Table 3 below provides a description of each of each of the variables, how each variable is mathematically represented and the proposed value for each variable. Following this table, ComReg provides its rationale for the proposed value for each variable in the formula.

Table 3: The values for the proposed model parameters under Option 2

Variable	Description and proposed values
The base fee for a paired (or 2 unpaired) 12.5 kHz channel: α	This is the value required for ComReg to recover its administrative costs of managing the PMR licensing framework. ComReg proposes setting **α=263**
The coverage area of a licence: c	This is a variable that is associated with the coverage area of a licence. If the coverage area of a licence is national: **c=1** If the coverage area of a licence is on site: **c=0** If the coverage area of the licence is wide area, c is the geographic scope of the licence in proportion to the area covered by a national licence. (i.e. c will be greater than zero, but less than 1)
The premium value for a national licence: β	This determines how much a national licence costs relative to an on-site licence: ComReg proposes setting **β=4**
The premium for individual rights of use licences: γ	γ is the proportionate premium for individual rights of use licences relative to licences that share channels. ComReg proposes setting **γ=3**
Whether a licence has individual spectrum rights of use or not: E	This is a binary variable that is associated with the exclusivity of a licence. If the licence requires individual spectrum rights of use: **E=1** If the licence does not require individual spectrum rights of use: **E=0**

Parameter values

4.5 The consolidated licensing approach proposed under Option 2 would see a notable change in the structure for PMR licensing. This approach would facilitate new licence type possibilities (for example, national shared-use licences and on-site licences with individual spectrum rights of use) while greater flexibility for licensees to secure licences better suited with their specific

4.6 Given the degree of change, anticipated demand would be challenging to forecast. The demand for licences under the proposed licensing structure is highly uncertain and ComReg cannot reasonably predict what users will need

to meet their communications requirements. That said, DotEcon rightly advises that the structure of fees and the assumptions used to distribute costs should reflect that the types of consolidated licences that may be taken up and should not inefficiently choke off demand from smaller users.

4.7 Therefore, fees should create meaningful incentives for efficient use of spectrum for PMR and should at least recover ComReg's administrative costs while also being predictable and practical to implement for ComReg.

4.8 In light of the above, ComReg discusses the parameters for each component in the fees formula in order below:

- The base fee **(α)**;
- The premium value for a national licence **(β)**; and
- The premium for an licence with individual spectrum rights of use **(γ)**

The base fee (α)

4.9 DotEcon advises that the base fee **(α)** is set at the level required to cover ComReg's administrative costs (under the assumption that the number of licences remains constant). It is calculated by dividing total administrative costs incurred by ComReg by the total number of channels currently licensed. This gives a value of €263 for **(α)** which is the minimum fee any PMR licensee would need to pay.[49] Additional fees would be incurred for licences with wider coverage, greater bandwidth and/or have individual spectrum rights of use (discussed below).

4.10 DotEcon advises that based on current use this might lead to some over-recovery of costs because the scope of existing licences go beyond on-site, shared use licences (i.e. some licensees use multiple channels, deploy services over a wider geographic area or are licensed for exclusive use with individual rights of use) and it is not possible to set a base fee for a consolidated licence when existing use is spread across five use types. Nevertheless, it is appropriate for ComReg to protect against any risk of significant under-recovery subject while not choking off efficient demand. This is a proportionate approach for the following reasons:

(i) any potential over-recovery would be spread across over 500 licensees compared to an under recovery which would have to be borne entirely by ComReg,

[49] DotEcon Report p.45, Document 25/46a.

(ii) Any additional costs arising from an over recovery of the base fee would be very modest,

(iii) the level of (and differences within) the fees must be sufficient to create meaningful incentives for the efficient use of the radio spectrum.

4.11 Given the above and in light of the values of the other parameters which are discussed below, ComReg agrees with DotEcon's recommendation and proposes to set the base fee **(α)** at €263.

The premium value for a national licence (β)

4.12 To create the appropriate incentive to avoid operators claiming larger coverage areas than required, DotEcon suggests that the premium for a national licence be based on the difference in fees between national and on-site licences (noting that such geographic scopes are already available under existing PMR licences and the stakeholder engagement suggested that they remained appropriate for the likely use cases). Third Party Business Radio licences (which are national licences) and Business Radio licences (which provide for on-site licences) are the closest equivalent licence types under the existing frameworks for PMR. To calculate the premium, DotEcon calculates the ratio of an annual TPBR licence[50] to a typical Business Radio licence[51] which gives a premium value for a national licence (β) of 4.

4.13 ComReg notes that this value would be towards the lower end of where ComReg could set the parameter value to incentivise users only taking national licences when required. For instance, DotEcon notes that a similar calculation based on the difference between national telemetry licence fees (not subject to this consultation) would result in a premium value of approximately 60. However, ComReg notes that such a high parameter could risk pricing off those who have genuine requirement for a national licence. ComReg therefore agrees with DotEcon's consideration as outlined at page 44 of its report ("Document 25/46a") and proposes to set the value at 4.

The premium value for a licence with individual spectrum rights of use (γ)

4.14 Similar to the premium value for a national licence, DotEcon advises that the individual spectrum rights of use parameter should be set at a level to incentivise operators to only take out licences with individual spectrum rights of use when they have a genuine need and value for them. DotEcon notes that the number of users that would share a channel is not fixed and may well

[50] The total fee for a Third-Party Business Radio licence is €5000 for a duration of 5 years. DotEcon assumes an annual value of €1000. DotEcon report p.44, Document 25/46a.

[51] This is calculated by taking the median number of pieces of equipment for on-site business radio licences. DotEcon Report p. 44, Document 25/46a.

depend on the usage patterns of licensees. As such, DotEcon recommends that ComReg offers guidance that there will typically be no more than 4 operators sharing a channel in a given area and advises that the premium value for a licence with individual spectrum rights of use be set at 3[52] to reflect this position. In DotEcon's view, this would reflect that the number of users sharing a channel would likely be the optimum shared usage scenario.

4.15 ComReg notes that under the existing frameworks, only TBPR licensees have individual spectrum rights of use and that all other PMR licensees are licensed on a shared basis. However, with the consolidated licence approach proposed under Option 2, all users would be able to apply for individual spectrum rights of use. ComReg agrees with DotEcon that setting the individual spectrum rights of use parameter should be set at a level to incentivise efficient use and not give rise to artificial scarcity. As such, ComReg agrees with DotEcon's recommendation and proposes to set the value at 3.

4.16 ComReg provides some examples of fees under the proposed framework in Table 4 below.

Table 4: Example of the proposed fees for PMR licences

	Annual fee under current framework	Annual fee under proposed framework
Example 1 2 x 12.5 kHz channels (1 paired) 10 pieces of equipment On-site operation Shared spectrum rights of use	Business Radio Framework 22+(22*10)= **€242**	[263(1+4*0)3^0] = **€263**
Example 2 8 x 12.5 kHz channels (4 paired) 2 base stations (4 paired channels at each location) Area: 100km^2	Trunked Radio Framework 1000*2*4= **€8,000**	4*[263(1+4*0.004) 3^0]= **€1070**[53]

[52] DotEcon Report p. 45, Document 25/46a.

[53] The 0.004 is calculated by calculating the coverage area (radius 10km = coverage area of approx. 314 km^2) and dividing it by the area of Ireland (approx. 70,273 km^2)

Shared spectrum rights of use		
Example 3 6 x 12.5 kHz channels (3 paired) National operation individual spectrum rights of use	Third Party Business Radio Framework 1000*3 = €3000 per year[54]	3*[263(1+4*1) 3^{1}]= **€11,835**
Example 4 6 x 12.5 kHz channels (3 paired) Area: 2500km^2 individual spectrum rights of use	Third Party Business Radio Framework Fees under current framework based on national usage only. 1000*3 = €3000	3*[263(1+4*0.036)3^{1}]= **€2703**

4.3 PMSE

Licence duration

4.17 DotEcon notes that the licence data indicates a polarising split as some users only require spectrum for relatively short periods (i.e. less than 10 days to cover a very short-term event, such as a concert), while other users apply for the maximum 6 month duration.

4.18 DotEcon suggests that increasing the maximum duration for PMSE licences from 6 months to 12 months would better support users that require longer term licences (as opposed to applying for a new 6 month licence at expiry) by reducing the frequency they would need to submit new licence applications, while also remaining consistent with the PMR licence framework.[55] ComReg agrees with this approach and proposes to increase the maximum licence duration for PMSE from 6 to 12 months.

Channels

4.19 Unlike other PMR licensees, DotEcon notes that PMSE operators use a wide range of bands, each catering for different types of equipment, with some using

[54] TPBR fees are €5000 for a paired channel for a duration of 5 years. Dividing by 5 assumes an annual fee of €1000.
[55] See DotEcon Report p.36, Document 26/06a

much wider bandwidths. DotEcon recommends that ComReg identifies a typical bandwidth for each band, and apply a fee based on that bandwidth.[56]. ComReg agrees with this approach and, having examined historical PMSE licence data, sets out the channel size and typical number of channels used in Table 5 below.

Table 5: PMSE channel size and usage

Equipment	Frequency Ranges	Typical Channel Size	Median number of channels used
Two-way radio	169 MHz, 441 – 448 MHz, 455 - 456 MHz, 461 MHz, 465 MHz, 469 MHz	12.5 kHz	2
Wireless microphone/In-ear Monitor	174-230 MHz, 470 - 703 MHz, 733 -753 MHz, 1785 - 1805 MHz	200 kHz	10
Wireless Camera	1980 - 2010 MHz, 2010- 2025 MHz, 2025 – 2110 MHz, 2170 – 2200 MHz, 2200 - 2300 MHz, 6.425 – 7.125 GHz, 7.125 – 7.425 GHz, 10.3 – 10.5 GHz	10 MHz	1
Telemetry	174-230 MHz, 455-461 MHz	12.5 kHz	2
Wireless Broadband	3800-4200 MHz	10 MHz	1

Fees for PMSE

4.20 As detailed in Chapter 3, ComReg is of the preliminary view that the fee structure for PMSE licences should be aligned with the proposed fee structure for the consolidated PMR licence proposed under Option 2. This approach would remove the equipment charge currently attached to PMSE licences and would helpfully make fees more predictable and consistent for PMSE users.

4.21 DotEcon advises that PMSE fees should be set at half the level of a comparable PMR licence (i.e. on site and shared use) fee under the formula set out above[57] as:

[56] DotEcon Report p.46, Document 25/46a
[57] DotEcon Report p. 46, Document 25/46a.

- this would be similar to the approach taken under the existing fee schedule;[58]; and
- is reflective of the fact that PMSE licences are issued for on-site use, with shared spectrum rights of use on a non-interfering and non-protected basis.

4.22 In light of this, and noting that the proposed PMR licence for (on- site and shared use) would be €263, the fees for PMSE would be €131.50. As mentioned previously, DotEcon recommends that this fee be applied to the typical bandwidth used for each PMSE band, which ComReg has set out in **Error! Reference source not found.** above. For example, the typical bandwidth for two-way radio is two 12.5 kHz channels which would mean the fee for 2 channels would be €131.50, and the fee for one channel would be €65.75.

4.23 Additionally, DotEcon advises that it would be prudent for ComReg to apply a price floor to cover the incremental administrative cost of the licence and recommends that this be set at half the fee of the typical bandwidth (in the above example, the minimum fee would be €65.75 which would correspond to a single 12.5 kHz channel or two 6.25 kHz channels).[59] ComReg agrees with this approach and sets out the fees annual licences for PMSE in Table 6 below.

Table 6: Proposed fees for PMSE licences

[58] Under the existing framework, licence fees are based on the quantity of equipment to be licensed. The cost is €12 per piece of equipment plus a fixed charge of €12 for the duration of the licence. This is half the price of the Business Radio framework which is €22 per piece of equipment in addition to a fixed charge of €22 for the duration of the licence.

[59] See DotEcon Report p37, Document 26/06a

Equipment	Frequency Ranges	Fees for 12 months
Two-way radio	169 MHz, 441 – 448 MHz, 455 - 456 MHz, 461 MHz, 465 MHz, 469 MHz	€65.75 per 12.5kHz simplex channel €131.50 per 12.5kHz duplex channel
Wireless microphone/In-ear Monitor	174-230 MHz, 470 - 703 MHz, 733 -753 MHz, 1785 - 1805 MHz	€65.75 per every five 200 kHz channels (or part thereof) (Ten 200 KHz channels = €131.50.)
Wireless Camera	1980 - 2010 MHz, 2010-2025 MHz, 2025 – 2110 MHz, 2170 – 2200 MHz, 2200 - 2300 MHz, 6.425 – 7.125 GHz, 7.125 – 7.425 GHz, 10.3 – 10.5 GHz	€131.50 per 10MHz channel
Telemetry	174-230 MHz, 455-461 MHz	€65.75 per 12.5kHz channel €131.50 per 12.5kHz duplex channel
Wireless Broadband for audio and wireless cameras apparatus	3800-4200 MHz	€131.50 per 10MHz channel

Fees for short term PMSE licences

4.24 As detailed previously, ComReg proposes to increase the maximum duration for PMSE licences from six months to 12 months. However, while this would support users needing licences full time and would be consistent with the general PMR framework, DotEcon advises that it may be prudent to include some financial incentive for not taking longer licences than needed. DotEcon notes that while there is currently no evidence of scarcity of PMSE spectrum, a proliferation of longer licences that are not required for the full duration could create a risk of artificial scarcity arising.[60]

4.25 To encourage users to only apply for longer licences where there is a genuine need, ComReg agrees with DotEcon's recommendation that for licences up to 3 months, the typical bandwidth fee would be set at €100. Taking the typical bandwidths from above, ComReg sets out the fees for short term PMSE licences in Table 7 below.

Table 7: PMSE fees for PMSE licences up to 3 months

[60] See DotEcon Report p37, Document 26/06a

Equipment	Frequency Ranges	Fees for Licences for up to 3 months
Two-way radio	169 MHz, 441 – 448 MHz, 455 - 456 MHz, 461 MHz, 465 MHz, 469 MHz	€50 per 12.5kHz simplex channel €100 per 12.5kHz duplex channel
Wireless microphone/In-ear Monitor	174-230 MHz, 470 - 703 MHz, 733 -753 MHz, 1785 - 1805 MHz	€50 per every five 200 kHz channels (or part of) (ten 200 kHz channels = €100)
Wireless Camera	1980 - 2010 MHz, 2010- 2025 MHz, 2025 – 2110 MHz, 2170 – 2200 MHz, 2200 - 2300 MHz, 6.425 – 7.125 GHz, 7.125 – 7.425 GHz, 10.3 – 10.5 GHz	€100 per 10MHz channel
Telemetry	174-230 MHz, 455-461 MHz	€50 per 12.5kHz simplex channel €100 per 12.5kHz duplex channel
Wireless Broadband for audio and wireless cameras apparatus	3800-4200 MHz	€100 per 10MHz channel

4.4 Indexing of Fees

4.26 In Document 25/46a, DotEcon advised that fees should be indexed to the Consumer Price Index ("CPI"). ComReg agrees with this and notes it would be consistent with ComReg's long established approach of applying an annual CPI adjustment to licence fees. The CPI is the official measure of inflation in Ireland and is, therefore, an appropriate and accessible benchmark for measuring changes to the value of money.[61]

4.5 Transition to new frameworks

4.27 To facilitate the transition to the new licensing frameworks for PMR and PMSE,

[61] Consumer Price Index - CSO - Central Statistics Office

ComReg intends to continue to operate the existing Licensing frameworks until 1 February 2028 for:

- Business Radio;
- Community Repeaters;
- Trunked Radio;
- Paging; and
- PMSE.

4.28 From the 1 February 2028, ComReg will no longer accept applications for licences under the existing Licensing frameworks and applications will be migrated to the new PMR and PMSE frameworks.

4.29 In relation to Third Party Business Radio, ComReg reopened the licensing scheme on the 1st of September 2025, and this will remain open for applications until the 9th of June 2027 or until all allocated channels have been assigned. All new Third Party Business Radio licences will expire in full on midnight if 29 September 2030.[62] Upon expiry, Third Party Business Radio licensees will need to apply for a licence under the new PMR Licensing framework.

[62] See ComReg Document 25/29.

Chapter 5

5 Proposed WBB LMP licensing framework in the 3.8-4.2 GHz Band

5.1 Introduction

5.1 In Chapter 6 of Document 25/46, ComReg set out its proposals for establishing a licensing framework for WBB LMP in the 3.8-4.2 GHz Band which provides for the deployment of private 5G networks and other WBB LMP systems.

5.2 Six responses were received to the proposals for a WBB LMP licensing framework, being from:

- Analog Devices Ltd ("Analog");
- DECT Forum; ("DECT Forum");
- Druid Software Ltd ("Druid");
- European Users Wireless Enterprise Network Association ("EUWENA");
- Sigma Wireless Ltd ("Sigma"); and
- Transport Infrastructure Ireland ("TII").

5.3 This chapter sets out:

- firstly, ComReg's response to consultation on Document 25/46 having regard to the views received from interested parties, recent developments and other relevant material; and
- secondly, a further consultation and draft decision (set out separately in Chapter 6) on its detailed proposals for the proposed WBB LMP licensing framework in the 3.8-4.2 GHz Band.

5.4 Further, Annex 3 of this document sets out the draft Regulations to establish a WBB LMP licensing framework in the 3.8-4.2 GHz Band.

5.2 Background

5.5 Chapter 6 of Document 25/46 set out in detail the background information on the 3.8-4.2 GHz Band and also set out the likely use cases for WBB LMP services that may be deployed in the 3.8-4.2 GHz Band. ComReg does not

propose to re-state these in this section but provides updates where relevant.

5.2.1 Bands to be included in the proposed framework

5.6 Noting that two respondents (Analog/Druid) made submissions on the understanding that ComReg was proposing to establish a WBB LMP licensing framework in **both** the 3.8-4.2 GHz Band **and** the lower part of the 26 GHz Band, ComReg in the interests of clarity, re-emphasises that the proposed WBB LMP licensing framework is, at this juncture, **only for the 3.8 – 4.2 GHz Band**.

5.7 This was set out at paragraph 5.2 of Document 25/46:

> *"Given the lack of demand for spectrum in the 26 GHz band for 5G purposes as noted in ComReg's most recent consultation on its radio spectrum management operating plan (ComReg Document 24/99), the lower part of **the 26 GHz Band is not considered in this consultation**."* (emphasis added).

5.8 Following the conclusion of this consultation process, ComReg may consider including other bands in a WBB LMP licensing framework should it be appropriate considering factors such as demand, harmonisation status, availability of equipment, etc.

5.2.2 International update

CEPT work in WGFM60

5.9 With ECC Decision (24)01[63], CEPT has harmonised 3.8-4.2 GHz spectrum for the shared use of low/medium power terrestrial wireless broadband systems providing local-area network connectivity.

5.10 The ECC group responsible for the regulatory implementation of the shared use of the 3.8-4.2 GHz Band is Working Group (WG) FM60. WGFM60 has been working on developing a series of recommendations that provide guidance to administrations for WBB LMP deployments, in line with earlier ECC work (ECC Decision (24)01, CEPT Report 088[64], ECC Report 358[65] and ECC Report 362[66]) on the topic of shared use of 3.8-4.2 GHz Band. The list of topics to be addressed in their guidelines and their status is provided below:

- Guidelines for the protection of the Fixed Service (FS) and the Fixed

[63] ECC/DEC/(24)01
[64] CEPT Report 088
[65] ECC Report 358
[66] ECC Report 362

Satellite Service (FSS) when introducing WBB LMP networks in the 3.8-4.2 GHz Band, are covered under ECC Recommendation (25)03[67]. This was published on 17th October 2025.

- Guidance on the coordination between WBB LMP networks in the 3.8-4.2 GHz Band, and on the protection of MFCN below 3.8 GHz. This is currently being finalised, and the work is expected to be completed by Q2 2026.

- Guidelines for the coexistence between WBB LMP in the 3.8-4.2 GHz Band and radio altimeters in the 4.2-4.4 GHz band. This is currently being finalised, and the work is expected to be completed by Q2 2026.

5.11 ComReg continues to monitor and participate as appropriate in (WG) FM60 and the development of the above guidance. ComReg's proposals in this document remains consistent with the current drafts of the above guidelines and should it be appropriate ComReg may take on board further aspects from these guidelines documents as they develop further.

EC Implementing Decision

5.12 Since Document 25/46 was published in July 2025 the European Commission Radio Spectrum Committee (RSC) has

- finalised a Draft Implementing Decision on the harmonisation of the 3.8-4.2 GHz Band for the shared use by terrestrial wireless broadband systems capable of providing local-area network connectivity;

- held, between the 20 October 2025 and 3 November 2025, a written procedure on the approval of this Draft implementing decision where it was approved; and,

- adopted and published the final Commission Implementing Decision (EU) 2025/2425 of 2 December 2025 on the harmonisation of the 3.8-4.2 GHz Band for the shared use by terrestrial wireless broadband systems capable of providing local-area network connectivity in the Union.

5.13 ComReg notes that the EC Decision adopted is essentially the same as that considered by ComReg in its consultation Document 25/46, and ComReg's proposals as set out below are in accordance with this EC Implementing Decision.

[67] ECC/REC/(25)03

5.3 General Principles informing a WBB LMP Licensing Framework

5.3.1 Summary of ComReg's proposal in 25/46

5.14 Section 6.2 of Document 25/46 set out 7 high level principles in establishing a WBB LMP Framework, which in summary are:

(i) A pragmatic approach

5.15 ComReg noted that there are a large number of unknowns with respect to establishing a WBB LMP licensing framework and as such ComReg was of the view that it would be prudent to apply a pragmatic approach. Informing this view ComReg, in summary, noted:

- there are a diverse and large number of potential use cases and licensees, the details of which will not become known to ComReg until the licensing framework is in operation;
- the market for private 5G networks is relatively new and the extent of demand is uncertain, it may be limited at first but could accelerate rapidly as it is adopted by industry;
- most licensing frameworks in Europe for WBB LMP services are relatively new and are being updated as new information becomes available; and
- studies and recommendations within CEPT with respect to the coexistence of services and licensing methods are ongoing.

(ii) Ensuring the efficient use of spectrum

5.16 Ensuring the effective management and efficient use of radio spectrum in Ireland is one of ComReg's statutory functions and objectives.

5.17 ComReg noted that given the work of DotEcon and Plum, there remains some ambiguity as to how best to license a WBB LMP network and the commensurate demand for such licences.

5.18 Plum noted that co-existence between two WBB LMP networks in the same frequency band can depend on many factors (power, synchronisation etc.) and that the re-use range of spectrum could vary from a hundred metres for low power synchronised deployments up to as much as 22 km for medium power unsynchronised deployments. This is detailed in Tables 2.1 and 2.2 of the Plum Report in Document 25/46b, reproduced below:

Unsynchronised		MP	LP	Indoor
Interferer (BS)	MP	22 km	9 km	1.5 km
	LP	6 km	3 km	0.5 km
	Indoor	1.5 km	0.5 km	<0.3 km

Table 2.1: Indicative re-use distances (BS-BS, unsynchronised operation)

Synchronised		MP	LP	Indoor
Interferer (BS)	MP	4 km	4 km	<0.2 km
	LP	0.4 km	0.4 km	<0.2 km
	Indoor	<0.2 km	<0.2 km	<0.1 km

Table 2.2: Indicative re-use distances (BS-UE, synchronised operation)

5.19 ComReg noted the potential that any licences issued initially would have notable impacts on the availability of the band for other users. Considering this ComReg noted that the effective management and efficient use of spectrum remain especially important for ComReg, and that it should be understood that in making the proposal for a WBB LMP licensing framework that **ComReg must adopt a prudent approach**.

(iii) Promoting innovation and competition is preserved

5.20 ComReg noted that in pursuit of its policy objectives, ComReg, among other things, is obliged to promote efficient investment and innovation in new and enhanced infrastructures while ensuring that competition in the market is preserved.

5.21 Notwithstanding the relative newness of the private 5G market and its potential to provide significant contributions across a large number of sectors, including manufacturing, logistics and transport amongst others, **the promotion of innovation and protecting competition are also key ComReg objectives** to consider in establishing a WBB LMP framework.

(iv) Technology and Service neutrality

5.22 ComReg noted that **technology and service neutrality is a key principle** enshrined in the European and Irish regulatory framework for electronic communications. This principle was reflected in the *then* draft EC harmonisation decision for the 3.8-4.2 GHz Band.

(v) Low to Medium Power – Local Area network connectivity

5.23 In Document 25/46, ComReg noted that both the ECC Decision (24)01 and the then draft EC implementing decision on the 3.8-4.2 GHz Band, harmonised the band for local area connectivity with low and medium power and made it clear that this band is not to be used for nationwide networks.

5.24 In this regard, ComReg noted that the proposed WBB LMP licensing framework will be available for WBB LMP systems **providing local area connectivity only**.

(vi) Shared use of the 3.8-4.2 GHz Band

5.25 ComReg noted that both ECC Decision (24)01 and the draft EC implementing decision on the 3.8-4.2 GHz Band harmonised the band for "shared use" (see Article 1 of draft EC decision), meaning that in practice the band will be shared between many different licensees as determined by the Member State.

(vii) Make the full use of the 3.8-4.2 GHz Band available

5.26 In light of Article 3 of the draft EC implementing decision on the 3.8-4.2 GHz Band, where it would oblige Member States to designate and make available on a non-exclusive basis the 3.8-4.2 GHz Band for WBB LMP Systems, ComReg proposed that ComReg's WBB LMP Framework is based on the **release of the entire 3.8-4.2 GHz Band**.

5.3.2 Summary of respondents' views to Document 25/46

5.27 Respondents are supportive of putting in place a WBB LMP licensing framework:

- *"EUWENA commends ComReg for advancing proposals that broaden spectrum access for private mobile networks in Ireland. A harmonised, transparent, and flexible licensing framework is essential not only within Ireland but also as part of a broader European digital strategy."* (EUWENA)

5.28 Analog/Druid state that *"We therefore strongly support ComReg's initiative to create a license framework in the near future for the 3.8-4.2 GHz and 24.25-27.5 GHz spectrum for low and medium-power Wireless BroadBand systems, using the spectrum harmonised under ECC/DEC/(24)01."*

5.29 Sigma State that: *"Sigma Wireless strongly supports the timely availability of the 3.8-4.2 GHz band for local-area private 5G networks in Ireland. There is significant commercial interest in private 5G networks in Ireland and many of our customers today have expressed a need for the security, control and services offered by local-area private 5G networks"*

5.30 In relation to the 7 high level principles, one respondent (DECT Forum) provides comments, where in summary, it is in broad agreement with the principles set out by ComReg, but cautions that any licensing framework should not directly or inadvertently undermine the principle of service and technology neutrality that might prevent the deployment of the DECT-2020 NR technology.

5.31 The specific comments set out by DECT Forum on each of the principles is as summarised below:

- **Ensuring the efficient use of Spectrum:** DECT Forum strongly supports this objective and contends that the DECT-2020 NR technology is specifically designed as a sharing technology and due to its design features ensures efficient spectrum use;

- **Promoting innovation and competition is preserved**: DECT Forum agrees with this principle and it contends that ComReg should ensure that all technical and non-technical conditions within the licensing framework are fully technology and service neutral.

- **Technology and Service Neutrality**: DECT Forum strongly agrees with this principle but cautions that the licensing framework should not inadvertently and unnecessarily, undermine the principle of technological neutrality. In support of this DECT Forum contends that in its view there is a fundamental error in the development of the technical conditions and draft ECC recommendations for the band, as it maintains that the approach taken was to develop these technical conditions and recommendations as another MFCN band (supporting 3GPP technology) rather than a private/professional mobile radio PMR band supporting 5G technology more generally.

  DECT Forum submits that Plum failed, in its view, to report equitably on DECT-2020 NR as a candidate technology.[68] DECT Forum therefore contends that some of the approaches proposed by ComReg risks undermining the principle of technology and service neutrality by focussing on 3GPP based technologies only and not viewing the potential for other technologies to deliver 5G private connectivity. DECT Forum contends that this, potentially, could limit competition, remove choice of technology and stifle innovation. DECT Forum provides an example for its opinion where the service and technology neutrality principle could be inadvertently not applied in the rollout obligation and

[68] The examples given by DECT Forum in this regard are "*at the start of Section 2.2 (of the Plum report) Plum notes that the fundamental source for coexistence between WBB networks is Section 6.1 of ECC Report 358. This Section deals specifically with 3GPP technology. Plum makes no mention of Section 6.4.1 and 6.4.2 which deals with NR+, both NR+ to NR+ coexistence and between NR+ and 3GPP technologies*."

the definition of base station where the definition could be defined to suit a 3GPP technology and not to appreciate the network structure of DECT-2020 NR.

- **Local Area network connectivity on a shared basis:** DECT Forum states they *"fully supports ComReg's view that the 3.8-4.2 GHz band should be for local PMR shared between many different licensees (in this way it has significant similarities to other PMR bands)."*

- **Make the whole 3.8-4.2 GHz band available:** DECT Forum supports this view.

5.3.3 Summary of Plum's views

5.32 In the accompanying Plum report (ComReg Document 26/06b), Plum observe that the proposed WBB LMP licensing framework is intended to be service and technology neutral taking into account relevant ECC Reports and work ongoing in FM60. Plum does not agree that any specific technical proposals run counter to the intention of technical neutrality.

5.33 Plum acknowledges that DECT-2020 NR systems have an architecture that differs from the cellular model of base stations and terminal stations. Plum notes that DECT Forum's response notes that this difference is accommodated in the text of 'Decides 3' of ECC Decision 24(01)[69]. Plum suggest that the eventual licensing framework should explicitly note that the term 'Base Station' is to be interpreted in line with the text of Decides 3 in Decision 24(01).

5.3.4 ComReg's assessment and view

5.34 ComReg observes that the DECT Forum's comments were primarily related to the principle of Service and Technology Neutrality, where it strongly agreed with ComReg that this principle should form part of the framework but it had a concern that the WBB LMP licensing framework might inadvertently put in place either technical or non-technical conditions that could run contrary to this principle.

5.35 Having considered DECT Forum's submission ComReg observes that Plum is of the view that no specific technical proposals run counter to this principle, and ComReg therefore remains of the view that the proposed WBB LMP licensing framework is entirely in keeping with the principles of service and technology neutrality and can provide for the licensing of any technology or service compatible with the licensing framework principles whether it be a 3GPP

[69] "for the purpose of [ECC 24(01)], a base station is a fixed radio device providing the gateway between the back-end network, for example the gateway to the internet or the user's fixed infrastructure, and the WBB LMP radio network devices"

technology, DECT NR or indeed any other technology. Further, ComReg also notes 3GPP technologies are a real use for the band and notes that these technologies and systems are in place in other countries.

5.36 In relation to DECT Forum's specific comment on the definition of a base station, ComReg notes and agrees with Plum's suggestion that the WBB LMP licensing framework should explicitly note that the term 'Base Station' is to be interpreted in line with the text of the ECC Decision 24(01)[70]. ComReg has therefore intentionally drafted the definition of base station to be broad enough to allow for all envisaged technology architectures in keeping with ECC Decision 24(01) (see the draft regulations in Annex 3).

5.37 Overall, ComReg remains of the view that the 7 high level principles informing the development of the Proposed WBB LMP framework are appropriate.

5.4 Transmission power in the band

5.4.1 Summary of ComReg's proposal in 25/46

5.38 In Section 6.4 of Document 25/46, ComReg noted that the licensing of transmission powers in the 3.8-4.2 GHz Band would have to be consistent with the relevant harmonisation decisions. Therefore, ComReg's preliminary view was that it would license in-block powers for low and medium power base stations and that terminals in the 3.8-4.2 GHz Band would be licensed in accordance with the maximum levels set out in relevant harmonisation decisions.

5.39 ComReg also observed that setting powers for medium power base stations would require careful consideration on its part prior to licensing, given that Plum's modelling had indicated potentially large re-use distances between medium power unsynchronised deployments.

5.40 Further, ComReg saw merit in retaining the discretion provided by the harmonisation decisions to license higher power levels than those specified in those decisions for base stations, in exceptional and duly justified cases and provided incumbent services remain protected.

5.4.2 Summary of respondents' views to Document 25/46

5.41 Analog/Druid suggest that ComReg ensure availability of sufficient power for licensees to meet network requirements for industrial indoor and outdoor

[70] "for the purpose of [ECC 24(01)], a base station is a fixed radio device providing the gateway between the back-end network, for example the gateway to the internet or the user's fixed infrastructure, and the WBB LMP radio network devices"

environments.

5.42 DECT Forum does not support the use of powers higher than the low and medium power levels set out in harmonised decisions, stating its view that this would be contrary to the policy objective of local area connectivity.

5.4.3 ComReg's assessment and view

5.43 ComReg observes that the respondents who comment on the power levels did not suggest that ComReg's proposed power levels were incorrect and that no respondents disagreed with ComReg's view that the licensing of transmission powers (both base stations and terminal stations) in the 3.8-4.2 GHz Band would have to be consistent with the relevant harmonisation decisions.

5.44 These transmission powers are clearly set out in the harmonisation decisions for the 3.8-4.2 GHz Band and provide for local area connectivity, excluding nationwide networks (see Annex 1 to ECC Decision 24(01) and the Annex to the EC Implementing Decision).

5.45 ComReg therefore is of the preliminary view that:

- it would permit both low and medium power deployments in the 3.8-4.2 GHz Band in accordance with the levels set out in relevant harmonisation decisions, noting that the deployment of medium power base stations would need careful consideration prior to any licensing due to its potential to limit the reuse of frequencies by other licensees;
- in relation to the use of powers higher than the low and medium power levels, that there is merit in retaining the discretion provided by the harmonisation decision to consider and license same in exceptional and duly justified cases; and
- in relation to in-block power for terminals, ComReg is of the view that terminal station apparatus will be licensed in accordance with the power levels set out in Annex 1 of ECC Decision (24)01 noting that this is the same as set out in the Annex to the EC Implementing Decision.

5.5 Licensing and network planning approach for WBB LMP

5.5.1 Summary of ComReg's proposal in 25/46

5.46 ComReg set out its preliminary views on an appropriate licensing and network planning approach for WBB LMP in Section 6.5 of Document 25/46, noting that it would continue to monitor the ongoing work of FM60 in developing

recommendations on these matters.

5.47 ComReg considered two generic approaches to licensing provided by FM60:

1. case-by-case assessment of each application by the regulator to ensure co-existence between WBB LMP networks; and

2. The setting of licence conditions at the licence area border, such as maximum field strength levels, to ensure interference-free coexistence.

5.48 ComReg took the preliminary view that, while the second approach might be beneficial for larger campus type networks, it might not be practicable to adopt at this juncture. In that connection, ComReg noted concerns raised by Plum, including that it might be too complex for most applications, and that the definition of appropriate field strength values would require assumptions to be made about (a) the technical characteristics of the (unknown) services to be protected and (b) the technical characteristics representative of all other services, which might lead to inefficient planning. Nevertheless, ComReg indicated that it would consider any new information that becomes available from FM60 on the matter.

5.49 In relation to the case-by-case licensing approach, ComReg stated its view that understanding the intended service area of the applicant would be important in informing the most appropriate licensing option (e.g. either LP or MP) and in ensuring the most efficient use of spectrum. Therefore, ComReg took the view that the following approach would be appropriate for WBB LMP licensing in the 3.8-4.2 GHz Band:

- **low power licences** would be issued to allow for base stations to be deployed within a 50m radius of a centre point, with terminal stations permitted both inside and outside the radius. The maximum antenna height for base stations would be 10m outdoors, with no restriction indoors. Applicants requiring low power use across a wider area than 50m circles could apply for multiple licences to make up a larger area;

- **licences for medium power base stations** would be issued on a case-by case basis and for the exact technical details of the base stations; and

- medium power base stations would only be licensed in the cities[71] under exceptional circumstances.

[71] Dublin, Cork, Limerick, Galway and Waterford.

5.5.2 Summary of respondents' views to Document 25/46

5.50 EUWENA supports a transparent and predictable licensing approach.

5.51 DECT Forum agrees with ComReg's proposed approach for case-by-case planning and supports separate approaches for low power and medium power licensing. However, DECT Forum proposes licensing wider area sites under a single low power assignment rather than under multiple 50 m radius assignments over the whole area, submitting that this would benefit the licensee and would entail no greater interference risk.

5.52 Sigma considers that it might be more feasible and economic to cover large outdoor campuses, and some large indoor sites, with a small number of medium power base stations instead of many low power base stations.

5.53 DECT Forum agrees with ComReg's proposal to only permit medium power in the cities on an exceptional basis. However, four respondents (Analog/Druid, Sigma and TII) disagree with this proposal. Analog/Druid argue that this restriction would hinder deployment at large outdoor campuses. Instead, they propose permitting medium-power (if ≤ 30 dBm/5 MHz EIRP) in urban areas subject to synchronisation or agreement/MoU with neighbours by the licensee.

5.54 Sigma suggests the urban medium power restriction could hinder WBB LMP adoption and suggests that too few medium power systems might be permitted. Further, Sigma suggests that ComReg could issue guidelines on the appropriate use of medium or low power and that unnecessary use of medium power could be addressed at the assessment stage.

5.55 TII suggests that ComReg consider enabling medium-power deployments for urban public transport use cases, as, in its view, low-power might be inadequate to support effective deployment of private 5G networks for public transport infrastructure in densely populated urban environments. TII submits that the higher density of low power base stations might entail planning permission requirements and risks of signal degradation, elevated interference levels, and inefficient handovers.

5.56 Analog/Druid propose adopting a coordination grid (e.g. 2km MP, 200m LP) rather than what it understood to be exclusions zones.

5.5.3 Summary of DotEcon's views

5.57 DotEcon considered the above submissions, where in summary it made the following commentary and recommendations:

- DotEcon agreed that there is a case for allowing MP in urban areas in justified cases however that it would be undesirable to assign licences

for MP to users that do not need them (i.e. those that could operate LP without a problem). Licensing MP could unnecessarily and inefficiently preclude access to spectrum for others, in particular in urban areas where the number and density of users is expected to be higher. Therefore, DotEcon noted that some mechanism would be needed for ensuring that MP licences are granted only where necessary. In light of this, DotEcon noted that ComReg could consider adjusting the phrasing of its approach so that medium power licences in urban areas would be allowed in justified cases rather than being considered in "exceptional circumstances".

- DotEcon noted that the suggestion by Sigma to require some form of justification on application is prudent and, in this regard, could mean that:
    - ComReg could reject/amend applications for MP applications that are not needed and ensure MP is only used where necessary; and
    - incentives to apply for a MP in the first place would be limited by the administrative burden of having to provide justification and the expectation of failure if a reasonable case cannot be presented.
- DotEcon noted that justification for MP should not be limited to urban areas as it observed that there are other scenarios in which there may be a cluster of potential users outside the urban centres (for example business parks) where unnecessary use of MP could create artificial scarcity. DotEcon therefore recommended that applications for MP licences should include some explanation for why LP would not be adequate.
- Regarding the suggestion made by Analog/Druid that synchronisation or signing an MoU with neighbouring users could be a condition of being granted a MP licence in urban areas, DotEcon noted that it does not believe that this would need to be a formal requirement. This could be too restrictive as licences could be issued as long as the risk of harmful interference is mitigated.
- Regarding consideration of the general licensing approach that could be taken, DotEcon considered the case-by-case planning approach versus the field strength approach. In summary, while DotEcon notes the relative advantages and disadvantages of each, it observes that using the case by case planning approach with further specifications on how the licence would be issued (e.g. one single licence with a number of LP areas and MP base stations included) supported by the applicant

providing its intended target coverage area provides a reasonable and appropriate approach to licensing.

5.5.4 Summary of Plum's views

5.58 Plum considered the above submissions, where in summary it made the following commentary and recommendations:

- Plum does not consider it appropriate to totally exclude the possibility of exceptions to the deployment of MP in the cities, as suggested by DECT Forum, as in some instances the deployment of a MP base station may be more spectrally efficient and cost effective than several low-power base stations, and some MP base station deployments might not be significantly higher than the low power limit.

- Plum restated its view that the deployment of MP in the cities needs to consider the indicative reuse distances that would likely be necessary between different WBB LMP base stations and any coexistence issues with adjacent channel MFCN networks. Plum referenced the re-use distance tables provided in Section 5.3 above where in summary the re-use distances of unsynchronised MP base stations is 22 km and with synchronised base stations its around 4km (BS-UE).

- Plum notes that coexistence with MFCN base stations below 3.8 GHz can be challenging, especially in urban areas where the density of MFCN base stations is greater but noted that ComReg's proposed approach to licence WBB LMP services operating on a synchronised basis with the same frame structure as the adjacent MFCN at the bottom of the 3.8-4.2 GHz Band addresses these coexistence issues. However, Plum observes that the challenges with deploying MP in the cities in an unsynchronised way highlights the difficulties of allowing, with no restriction, the deployment of MP base stations in urban areas.

- Plum restates the international benchmarking work it carried out in its first report (Document 25/46b), where in several countries there are restrictions on the deployment in certain geographic areas (UK, Norway and Poland). Here it notes that

    - In the UK, an "Exceptions" process is used to assess applications for medium power deployment (for antenna height of up to 10m) in Greater London, and for antenna heights above 10m everywhere in the UK (including Greater London).

    - In Norway (Nkom), medium-power base stations are not permitted in geographic areas that fall within a zone of 10 km outside urban

settlements with more than 10,000 inhabitants. Plum notes that Nkom may, however, grant exemptions for large industrial sites such as ports, if the benefits of deployment outweigh the disadvantages.

5.59 Considering the above, Plum suggests that the terminology of only allowing MP base stations in urban areas on "exceptional cases" could be amended to "justification by a demonstrable requirement" or similar. Further Plum is of the view that applicants should submit information on the actual power levels required and that full account is taken of antenna radiation patterns to avoid the over prediction of coverage that is not suited to the planned coverage area of the service, thereby limiting the potential for "sterilised" areas.

5.5.5 ComReg's assessment and view

5.60 ComReg has considered the submissions received from respondents and the analysis and views set out by DotEcon and Plum in their respective reports published alongside this document and as summarised above.

The case-by-case planning approach remains appropriate

5.61 Firstly, regarding **the general licensing approach**, ComReg notes the submissions made by respondents related to the case-by-case planning approach, the previous views and recommendations presented by Plum and DotEcon and has also considered the latest work in FM60.

5.62 The FM60 work is ongoing where at its last meeting on 13-14 November 2025, it has expanded the text of its draft recommendation[72] on the two approaches being considered (i) case by case planning and (ii) licensing areas with field strength limits at the boundaries of service areas. ComReg notes that work is still needed to complete the recommendations, notably in relation to determining a method of licensing based on areas with field strengths at boundaries.

5.63 While ComReg will continue to monitor this work, at this juncture the case-by-case planning approach remains ComReg's preferred approach to licensing and interference management, noting in particular Plum's recommendations where the second approach (i.e. licensing areas with field strengths) may be spectrally inefficient and significantly complex especially for low power

[72] The recommendation titled "Guidance on the coordination between low and medium power terrestrial wireless broadband networks (WBB LMP) in the band 3800-4200 MHz, and on the protection of MFCN below 3800 MHz"

deployments.

5.64 Regarding the point made by the DECT Forum that it could perhaps be more appropriate to licence LP areas that were larger, ComReg notes that should a licensee require coverage across a larger area, then it can apply for multiple LP 50m circles and MP base stations should that be appropriate. Additionally, irrespective of the number of LP areas and MP base stations being applied for, ComReg in practice intends to issue one licence to the Licensee for the intended area, with that licence setting out details of the spectrum rights of use for each of the LP areas and MP base stations being licensed. Consequently, any such licence would be intended for an area larger than just one LP 50m circle.

5.65 Overall, ComReg remains of the view that the general approach to licensing LP service areas and MP base stations on a case-by-case basis is appropriate.

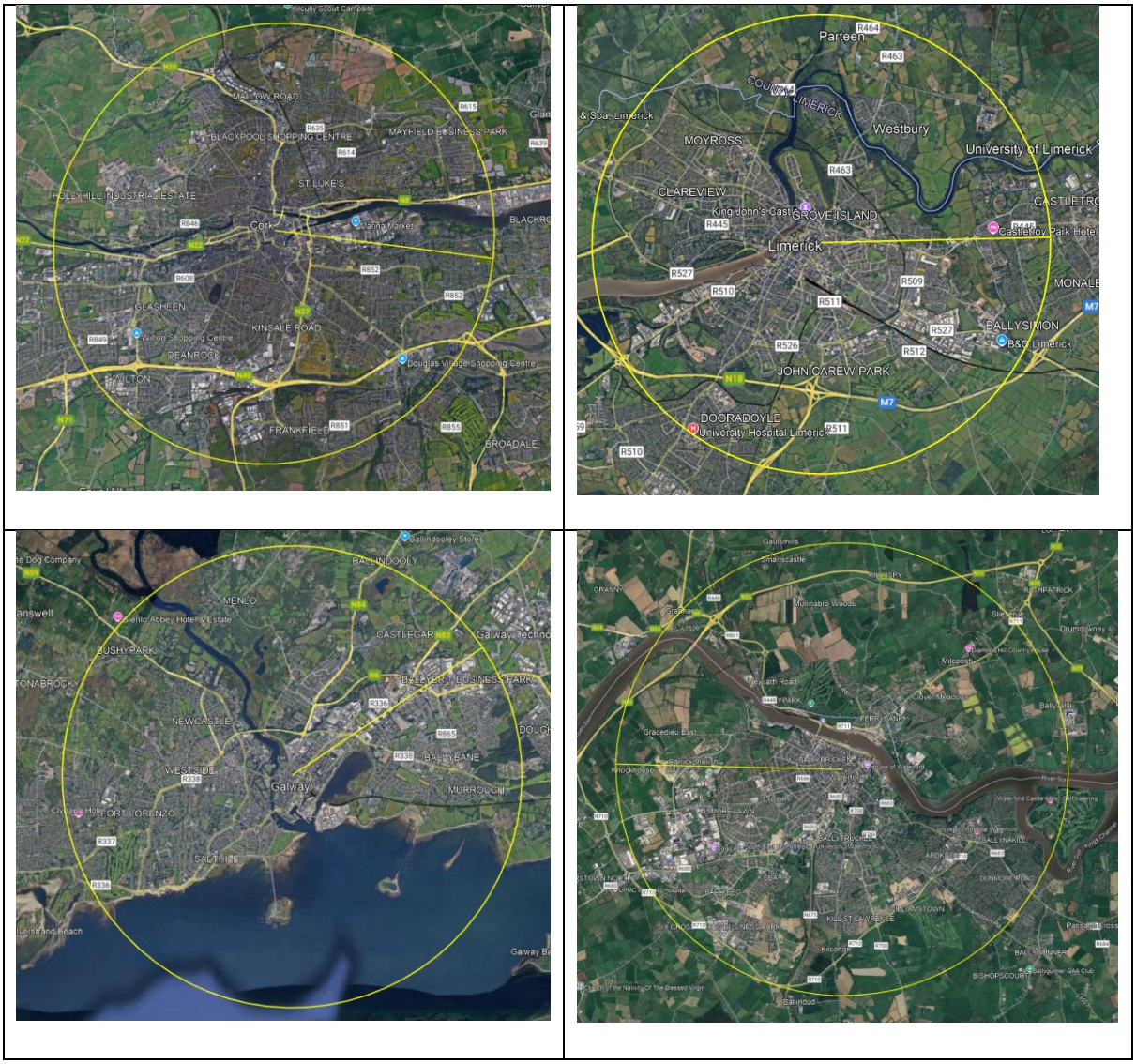
Medium power base stations in the cities

5.66 Regarding the deployment of MP base stations in urban areas, ComReg notes the concerns and views submitted by respondents and the analysis and recommendations provided by DotEcon and Plum.

5.67 In considering same, ComReg is of the preliminary view that the wording of the approach to licensing MP base stations in the cities can be amended from being on an "exceptional" basis to being permitted where "duly justified and using the lowest powers possible". In forming this preliminary view, ComReg notes the following:

- the reuse distances as set out by Plum can be significant for MP deployment (up to 22km in the unsynchronised case and around 4km when synchronised) and therefore planning of MP base stations needs careful consideration especially in the cities. For example, see the illustration of a 4km re-use distance circle for the cities of Cork, Limerick, Galway and Waterford below where the majority of the city is encompassed within the 4km re-use circle.

Figure 1: An illustrative 4km reuse distance for a MP base in the centre of Cork, Limerick, Galway and Waterford cities in the synchronised case.



- there may be certain cases where a MP deployment is more efficient and/or cost effective to deploy rather than multiple low power deployments,

- The MP range of powers spans from 18-38dBm/5 MHz and there may be cases in particular that could benefit from operating in the lower end of the MP range. In this regard, ComReg notes the submission by Analog/Druid where they contend that MP deployment should be permitted in the cities where the EIRP of <= 30dBm/5MHz is used on a synchronised basis and/or agreement with neighbouring licensees; and

- in licensing any MP base station, it will be important to understand the target coverage area and the target service being proposed by an applicant to ensure that the MP base station deployment(s) are not providing the target service unnecessarily beyond the target coverage area, causing harmful interference to adjacent users or sterilising areas

from any future use.

5.68 Regarding the suggestion from Analog/Druid that MP deployments in urban areas should be permitted for powers less than or equal to 30 dBm/5MHz if the licensee either (a) synchronises its TDD frame structure with neighbours or (b) signs an MOU, ComReg agrees with DotEcon's view that this is not needed as a condition. In particular, and while coordination and synchronisation are useful mechanisms, the key objective would be to limit the risk of harmful interference occurring between licensees, where this can be achieved through ComReg's assessment of new applications[73] in accordance with its compatibility assessment. ComReg's compatibility assessment will aim to limit harmful interference, place licensees that can synchronise in the same location in the band and suggest other mitigation measures that could limit the risk of harmful interference. Notwithstanding, ComReg intends to publish licence information on its website where applicants can engage with existing licensees if they wish to address any potential interference issues in advance.

Establishing a default coordination distance grid is not required

5.69 With regard to the proposal from Analog/Druid to adopt a coordination distance grid, firstly ComReg notes that neither respondent has provided any rationale or evidence as to how such an approach might be appropriate and effective.

5.70 Secondly, the respondents do not make clear whether the coordination grid would be geographically fixed and consistent nationwide or relative to the specific base station being assessed as part of a licence application.

5.71 Third, in ComReg's view, the proposal for a coordination distance grid does not offer the flexibility to address potential variations in separation distances, as indicated by Plum and CEPT on the basis of studies. As discussed in Section 6.5.2 of Document 25/46 in relation to network planning, ComReg could permit co-channel deployment of low power[74] WBB LMP networks without further assessment if beyond a fixed distance in line with the indicative re-use distances[75] presented in Table 2.1 of the First Plum report (Document 25/46b). ComReg notes that these re-use distances are based on modelling studies by Plum. For example, for outdoor use the indicative re-use distances range:

- from 0.4 km between synchronised low power WBB LMP deployments

[73] See Section 6.11.2 of Document 25/46 and considered further below in section 5.10 on sharing and compatibility considerations)
[74] In section 6.5.2 of Document 25/46, ComReg did not consider the use of indicative re-use distances in relation to the assessment of licence applications for Medium Power WBB LMP base stations and instead considered that detailed case-by-case assessment would be carried in relation to medium power licence applications.
[75] E.g. 0.5 km for LP to indoor, 3 km for LP to LP and 6 km for LP to MP.

to 3 km between unsynchronised low power deployments; and

- from 4 km between synchronised medium power base stations to 22 km between unsynchronised medium power base stations.

5.72 Relative to the maximum indicative re-use distances, the example coordination grid sizes (2 km medium-power, 200 m low-power) proposed by Druid and Analog are small and do not take into account potential wide variations in re-use distances depending on factors such as use or non-use of synchronisation, indoor use and whether the potential interference scenarios is LP to LP, LP to MP, MP to MP or LP to MP. Further, studies related to coexistence among WBB LMP deployments set out in section 6.1 of ECC Report 358 also indicate that required separation distances between WBB LMP networks could vary according to deployment scenarios.

5.73 In their proposal, Analog/Druid imply that ComReg has proposed 'absolute exclusion zones' between WBB LMP deployments. However, ComReg has been flexible rather than absolute in its proposed approach to using indicative re-use distances. In relation to low power licence applications, ComReg indicated in section 6.5.2 of Document 25/46 that it could license co-channel deployments within the relevant indicative re-use distance of an existing licensed deployment, where:

- no non-overlapping assignments are available for the bandwidth requested within that distance; and

- an assessment using appropriate modelling indicates that the signal is below an appropriate interference threshold.

5.74 Therefore, ComReg is not convinced that the proposed coordination distance grid would be an effective tool for managing coordination between WBB LMP networks compared to the use of re-use distances (for low power) and case-by-case planning (for medium power), as proposed by Plum.

5.5.6 Summary of ComReg's preliminary view

5.75 In light of the above, regarding the Licensing and Network planning approach, ComReg is of the preliminary view that:

- the general approach to licensing LP service areas and MP base stations on a case-by-case basis is appropriate with the further specification that a WBB LMP Licence for a deployment would contain the necessary low power licence areas and medium power base stations needed and where the application for same is supported by identifying the target coverage area and target service; and,

- that medium power base stations would be permitted in the five cities (Dublin, Cork, Limerick, Galway and Waterford) in duly justified cases and using the lowest powers possible.

5.6 Bandwidth

5.6.1 Summary of ComReg's proposal in 25/46

5.76 In section 6.6 of Document 25/46, ComReg noted DotEcon's observation that stakeholder engagement had indicated that likely bandwidth requirements from circa 5 MHz to around 100 MHz. In that connection, ComReg also noted Plum's observation from its benchmarking exercise that channel bandwidths already available for WBB LMP type use in the 3.8-4.2 GHz Band in other European Countries varied between 10 MHz and a maximum of 80 MHz or 100 MHz. Therefore, ComReg aimed to provide licensees access to sufficient spectrum to meet their needs under its proposed WBB LMP licensing framework.

5.77 However, ComReg considered that controls would be needed to prevent applicants applying on a speculative basis for bandwidth that they do not need. In ComReg's view, absent controls this could result in the whole 3.8-4.2 GHz Band being fully licensed in an area in a short timeframe, potentially foreclosing any future licences being issued in that area. ComReg noted that the area in question could be several kilometres wide, considering the re-use distances indicated by Plum.

5.78 Therefore, ComReg proposed to put in place two controls:

1. applicants would have to provide detailed rationale for the bandwidth proposed; and

2. licensees would have to periodically report usage to ComReg, and ComReg could amend or withdraw the licence accordingly.

5.6.2 Summary of respondents' views to Document 25/46

5.79 Analog/Druid suggest that the full 3.8-4.2 GHz Band should be authorised and that ComReg should provide an **initial minimum of 100 MHz** per applicant to be reviewed based on usage, while EUWENA suggests assigning larger, contiguous blocks of spectrum, ideally the full 3.8–4.2 GHz Band. In contrast, DECT Forum agrees with ComReg's view that large bandwidths risk possible future use by assigning all the spectrum to a small number of users.

5.80 Sigma submits that ComReg's proposals for controls on bandwidth usage may be unnecessarily complex and restrictive and that assigning larger channel bandwidths is less complex and is not necessarily inefficient spectrum use, as

bandwidth usage is elastic and is not always possible to know traffic demands before deployment. As an alternative approach, Sigma suggests offering a range of different channel bandwidths (100 MHz, 50 MHz, 20 MHz or 10 MHz) for more flexibility and for lower bandwidth licence requests.

5.6.3 Summary of DotEcon's views

5.81 DotEcon considered the above submissions, where in summary it made the following commentary and recommendations:

5.82 DotEcon is of the view that respondents' needs for a straightforward application and compliance process or access to large bandwidths does not necessarily conflict with ComReg's high level proposals.

5.83 DotEcon notes that justification for the requested bandwidth on application and no strict cap on bandwidth per individual licence are appropriate as this allows ComReg to consider the request in the context of the local demand/interference environment. As an example, DotEcon noted that a request for larger bandwidths for low power indoor use would be easier to accommodate than a request for a larger bandwidth at a MP base station. Provided that bandwidth requests are derived from reasonable network planning, DotEcon does not expect this to place any significant burden on operators.

5.84 DotEcon provided some analysis of the likely bandwidths that may be requested and the likely issues that might arise regarding the numbers of users that may be allowed in an area, for example:

- up to 80 MHz would allow for a minimum of 5 users, where in this context DotEcon observe that there is unlikely to be much risk of congestion, so assessment of smaller bandwidths on applications may, in most cases, not need to be particularly onerous;
- up to 100 MHz, ComReg may need to consider requests more carefully in cases where there is a risk of congestion (e.g. in urban areas) but such requests are likely to be common as a 100 MHz channel is likely to be widely sought after;
- Beyond 200 MHz, the operator might effectively monopolise the band, and requests would likely only be accepted if there is a very low likelihood of other potential users in that area being negatively affected by not being able to get access to spectrum.

5.85 DotEcon noted that as with other reporting requirements, it expects that periodic updates of bandwidth usage would not be burdensome, once the initial rollout requirements had been met. DotEcon note that the fee structure can provide incentives to return marginal bandwidth if it is no longer required so in normal circumstances the ongoing reporting to ComReg might simply be

confirming that the operator is still using the entire licensed bandwidth when it pays its fees. However, DotEcon notes that in certain circumstances ComReg could request licensees to provide additional information (e.g. network logs to demonstrate network throughput, bandwidth usage etc.) as this would provide valuable information should spectrum in a given area begin to become scarce.

5.6.4 Summary of Plum's views

5.86 In Plum's view, the suggestion by some respondents of 100 MHz bandwidth assignments for WBB LMP would seem a likely recipe for interference, especially in urban areas, given necessary separation distances. Plum notes that Ofcom's recent statement on shared access licensing identifies the 'spectrum bandwidth users choose to deploy' as one of the primary drivers of spectrum scarcity.

5.87 Plum considers that adopting a wide range of different licensed bandwidths can lead to issues of spectrum fragmentation and can be administratively burdensome. Plum proposes to minimise these issues by licensing on the basis of a few preset bandwidths (for example 10, 20, 40, 60, 80 or 100 MHz).

5.6.5 ComReg's assessment and view

5.88 ComReg notes the submissions made by respondents regarding the controls on bandwidths assigned to licensees.

5.89 Regarding the submissions from Analog/Druid that an initial minimum of 100 MHz is licenced to licensees regardless of their justified needs, ComReg notes that this would not be in the interests of promoting the efficient use of spectrum for the following reasons:

- this would limit the number of licensees in an area to a maximum of 4, and perhaps less as the suggestion is that 100 MHz is an "initial" requirement;
- there are many use cases identified[76] that would have a requirement for less than 100 MHz, for example low data rate machine signalling that may require much smaller bandwidths in the order of 10 MHz. Licensing a minimum of 100 MHz to this licensee would clearly be inefficient and would potentially prevent other applications that require larger bandwidths from being deployed.

[76] ComReg in Document 25/46 and DotEcon in Document 25/46a noted a broad and varied set of use cases, some requiring higher bandwidth but many also that would have low bandwidth requirements, for example, messaging and voice communication, sensing and monitoring, remote control operation of equipment etc…

- experience from other countries identify that a common bandwidth licenced is 40 MHz[77] for systems.

5.90 In informing its proposed approach to licensing bandwidths, ComReg notes the following three key principles are particularly relevant:

- promoting innovation and competition is preserved;
- ensuring the efficient use of spectrum; and,
- the 3.8-4.2 GHz Band is for shared use.

5.91 In this regard, **ComReg strongly promotes innovation** in the band by providing for a WBB LMP licensing framework where licensees can use the spectrum to deploy private 5G networks (which vary in demands) and other novel uses as discussed in Chapter 5 of Document 25/46. However, these uses should aim to deploy and **make efficient use of the spectrum**. It would not be appropriate for ComReg to permit a small number of licensees in an area to accumulate all the spectrum in the band and hoard this to the detriment of other potential users. The 3.8-4.2 GHz Band is to be used on a shared basis but is also being made available on a first come first served basis. Allowing initial licensees to obtain spectrum rights of use that they do not reasonably need would heighten the risk of hampering innovation, lessening competition and inefficient use of the spectrum.

5.92 Balancing these objectives, ComReg remains of the view that it must have appropriate controls in place to continue to promote innovation, the efficient use of spectrum and facilitate this shared use as follows:

- applicants would have to provide detailed rationale for the bandwidth proposed; and
- licensees would have to periodically report usage to ComReg, and ComReg could amend or withdraw the licence accordingly.

5.93 ComReg notes that these controls should not be seen as preventing innovative uses being deployed. Should an applicant have a requirement for 100 MHz or indeed even larger, ComReg would seek to facilitate the licensing of these bandwidths should appropriate justification be provided.

5.94 In this regard, applicants would need to provide a description of the Target

[77] In the UK, Ofcom (information extracted Jan 2026), 100 MHz is the most licensed bandwidth (556 licences), 170 licences are for 80 MHz or below where 40 MHz (76 licences) is the second most licensed bandwidth overall. The 100 MHz licences in the UK are regularly used for FWA broadband which as would be understood is targeted at provided high throughput services to multiple users over an extended area.

Service. A description of a Target Service should be known to any serious licensee or its service provider that is considering the deployment of a private network and would include for example, whether the throughput direction is predominantly downlink or uplink, the targeted throughput requirement per device in Mbit/s (DL and UL), the envisaged number of devices on the network, the frame structure /synchronisation profile envisaged, the MIMO profile being deployed and the resulting bandwidth being requested. This information should allow for an appropriate assessment of a reasonable request for bandwidth and is more appropriate than granting an initial minimum of 100 MHz without justification as proposed by respondents.

5.95 Further to the reuse distances identified by Plum (up to 22km for MP unsynchronised use), larger MP deployments that cannot synchronise with existing licensees would require the greatest care in assessing an application. Conversely, an application for a larger bandwidth that is for low power, indoors and can synchronise with existing users would raise little concern as it would not prevent other users from obtaining a licence in the local area where Plum identifies reuse distances of <0.1 km.

5.96 It is noted that there may be some uncertainty over some of the above parameters when providing for innovative new services, however reasonable estimates can be provided and further refined over time. In this regard, ComReg remains of the view that the second control around periodically determining actual usage is appropriate, as where assumptions are made on initial design, real life experience of a network being in use can give greater insights to the amount of bandwidth required for a Network. Indeed, this could result in not as much spectrum being required and the licence being amended or that an application is needed for additional bandwidth. ComReg intends to provide for both scenarios.

5.97 To provide for efficient spectrum use, for managing interference and for administrative efficiencies, **ComReg proposes to establish a set channel raster for the 3.8-4.2 GHz Band and issue licences for set bandwidths (i.e. 10, 20, 40, 60, 80, 100 MHz etc…)**. The main channel raster would start at 3800-3820 MHz, 3820-3840 MHz, etc…. Where 10 MHz bandwidth is required, it is envisaged that it would be licenced in either the lower or upper 10 MHz of the 20 MHz channel.

5.6.6 Summary of ComReg's preliminary view

5.98 In light of the above, regarding the bandwidth that can be licenced, ComReg is of the preliminary view that:

- ComReg will consider applications for any proposed bandwidth that is in line with the channel raster for the 3.8-4.2 GHz band e.g. (10 MHz,

20MHz, 40 MHz, 60 MHz, 80 MHz, 100 MHz or potentially greater bandwidths);

- applicants will need to provide sufficiently detailed justification for the proposed bandwidth and in doing so must set out details of the Target Service in its application; and,
- it will be a condition of the licence that licensees would have to periodically report usage to ComReg when requested, and ComReg could amend or withdraw the licence accordingly.

5.7 Synchronisation

5.7.1 Summary of ComReg's proposal in 25/46

5.99 In Document 25/46, ComReg noted that some use cases could be more uplink heavy (e.g. outside broadcasts), while others might be more compatible with the default frame structure (i.e. Downlink: Uplink, 3:1) [78] used by all licensees[79] in the 3.6 GHz Band. Therefore, ComReg considered it appropriate to permit licensees to propose frame structures that are most suitable for each use case. However, ComReg might suggest amendments to these proposals for reasons of efficient planning or licensing purposes.

5.100 ComReg noted that the current draft ECC Recommendation from FM60 identifies that synchronisation is necessary in the lower 20 MHz of the band in all cases and for medium power use in the lower 60 MHz of the band. As such, the then draft recommendation suggested implementing a guard band (3800-3820 MHz) and restricted use (low power only in 3820-3860 MHz) at the lower end of the 3.8-4.2 GHz Band for unsynchronised use. However, to facilitate efficient spectrum use, ComReg proposed to license deployments compatible with the default frame structure in the lower part of the band and other frame structures at the top part of the band, so that spectrum efficiency would not be compromised by use of a guard band.

5.7.2 Summary of respondents' views to Document 25/46

5.101 ComReg received two responses in relation to its proposals on synchronisation: from Sigma and DECT Forum.

5.102 Sigma contends that the full lower 100 MHz of the 3.8-4.2 GHz Band should be reserved for WBB LMP deployments synchronised with WBB ECS below 3.8 GHz. In Sigma's view, this would prevent the unsynchronised use of the 3860-

[78] Frame configuration 2, as set out in the licences issued to the 3.6 GHz band licensees under S.I. 532 of 2016.
[79] Eir, Imagine, Three and Vodafone

3900 MHz range, ensure that up to 100 MHz channels are available for synchronised deployments, and maximise spectrum efficiency.

5.103 DECT Forum supports ComReg's preliminary view to allow licensees flexibility to propose frame structures appropriate to their use cases. However, it has concerns that ComReg's indication that it might suggest amendments to such proposals would create uncertainty around the use of other technologies in future.

5.104 In relation to ComReg's proposal to assign licences that can synchronise with WBB ECS below 3.8 GHz in the lower end of the 3.8-4.2 GHz Band, DECT Forum considers the requirement for synchronisation contrary to technology neutrality. In its view, the risk of interference to MFCN below 3.8 GHz from unsynchronised WBB LMP, especially for low power WBB LMP, has been overstated, and there is no need for such WBB LMP deployments to be synchronised with MFCN. In that connection, it contends that:

- ECC Report 358 shows a very low probability of interference from DECT at 3805 MHz, which seems to be reflected in the real world; and
- there have been no reported interference cases in the UK where the 3.8-4.2 GHz Band has been in use for some time with a 5 MHz guard band above MFCN.

5.105 DECT Forum considers that synchronisation between WBB LMP and MFCN may be impracticable in reality, as the relevant parties must agree on various frame structure and timing parameters and must consider several complex factors such as cell size and guard periods to allow for propagation time between the furthest separated base stations. Further, DECT Forum queries how renewal over time of compatible frame structures among MFCN operators might affect WBB LMP operators.

5.106 Further, DECT Forum contends that synchronisation does not mitigate base-to-terminal or terminal-to-base interference. In its view, while base station-to-base station may be the dominant interference scenario in public mobile networks with base stations generally above the clutter, this should not be assumed for WBB LMP which will likely have network layouts significantly different to those of MFCN.

5.7.3 Summary of Plum's views

5.107 Plum notes that the working draft ECC Recommendation from a recent meeting of FM60 held on 13-14 November 2025 proposes measures for the WBB LMP coexistence with and protection of MFCN below 3800 MHz, which include:

- synchronised and semi-synchronised operation in the entire 3800-4200 MHz band with no requirement for co-ordination and no risk of interference from WBB LMP into MFCN;
- unsynchronised operation where unsynchronised WBB LMP low power base stations may only deploy above 3820 MHz and unsynchronised WBB LMP medium power base stations may only deploy above 3860 MHz; and
- recommendations for reduced unwanted emission levels below 3.8 GHz from WBB LMP base stations in the unsynchronised case.

5.108 Plum notes FM60's view that WBB LMP base station receivers may experience some interference from MFCN downlinks under semi-synchronised operation, which could be reduced but not eliminated with a frequency separation of at least 40 MHz.

5.109 In light of the above, Plum considers it too restrictive to mandate synchronisation in the lower 100 MHz without supporting information and that there is insufficient information to propose a 5 MHz guard band as noted by DECT Forum in relation to the UK.

5.110 Instead of mandating synchronisation, Plum favours adopting a light-touch approach, where possible, to provide some flexibility, in the interests of technology neutrality. Therefore, Plum takes the view that ComReg's proposed approach seems to strike the appropriate balance, i.e. not mandating synchronisation but instead licensing deployments compatible with the default frame structure in the lower part of the band and other frame structures at the top part of the band. Plum observes that ComReg's proposal is in line with the current CEPT approach to recommend synchronisation, rather than to mandate it.

5.7.4 ComReg's assessment and view

Reservation of the lower 100 MHz for synchronised use only is not appropriate

5.111 Regarding Sigma's argument to reserve the full lower 100 MHz of the 3.8-4.2 GHz Band for WBB LMP deployments synchronised with WBB ECS below 3.8 GHz, ComReg observes that:

- the draft ECC Recommendation from FM60 would provide for the operation of unsynchronised WBB LMP medium power base stations in the frequency range above 3860 MHz and does not indicate any

potential interference issues from WBB LMP above 3860 MHz to WBB ECS below 3.8 GHz;

- with regard to band segmentation and synchronisation, Plum notes the importance of technology neutrality and adopting a light-touch approach, where possible, to provide some flexibility;

- Plum notes that ComReg's proposed approach of not mandating synchronisation but instead applying a 'soft' band segmentation that reflects demand (i.e. assigning WBB LMP systems that intend to adopt the standard frame structure at the lower end of the band, with other systems assigned from the top down) seems to strike the appropriate balance; and

- limiting the first 100 MHz of the band only to systems synchronised with WBB LMP below 3.8 GHz would diminish its flexibility to reflect demand, thus running counter to spectrum efficiency.

Changes to frame structures would be in limited circumstances

5.112 With regard to DECT Forum's concerns about ComReg's proposal that it might suggest amendments to proposals for frame structures by licence applicants, ComReg notes that such amendments would likely arise in a limited number of circumstances and where other more straightforward measures (such as a change of frequency) are not possible, for example:

- should the band become heavily used in an area and there are limited or no frequencies available to license on the basis of unsynchronised use, ComReg may be able to license the frequencies to the applicant where the applicant changes its frame structure to synchronise with existing licensees; and,

- where, for band management reasons, ComReg observes that there are little or no available frequencies in an area that has further demand, it reserves the right to review the licences in an area to establish whether any pragmatic changes can be made to ensure the most efficient use of spectrum. ComReg envisages that it will consult with existing licensees as part of any such review and ComReg would act in a proportionate manner in making any changes to existing licence details.

ComReg's proposals are in keeping with service and technology neutrality

5.113 ComReg does not agree with DECT Forum's submission that ComReg's proposal to assign licences that can synchronise with WBB ECS below 3.8 GHz in the lower part of the 3.8-4.2 GHz band would be contrary to technology

neutrality, noting that:

- Plum does not believe that any specific technical proposals run counter to the intention of technical neutrality, ;
- ComReg's proposal does not preclude DECT or any other technology from obtaining licences and deploying in the band;
- while the EC Implementing Decision harmonises the band for WBB LMP systems on a technology neutral basis, Article 4 thereof requires Member States to appropriately protect WBB ECS within the 3.6 GHz Band;
- the existing extensive deployment of national WBB ECS networks using 3GPP technology in the band below 3.8 GHz is a reality in Ireland[80] and ComReg must be able to ensure that these networks are protected in line with its statutory objective of ensuring the efficient management and use of the radio frequency spectrum in Ireland.

5.114 Further, ComReg notes that, as they transmit in the low power range[81], DECT-2020 NR systems could be licensed as low in the band as 3820 MHz in line with the draft ECC Recommendation from FM60 which recommends only allowing operation of unsynchronised WBB low power above 3820 MHz. In any case, any licensing of unsynchronised DECT-2020 NR systems below 3820 MHz could be considered in future, subject to further study and justification, but for band management purposes ComReg favours licensing 3GPP systems in that frequency range as a practical measure initially. Further, ComReg notes Plum's view that there is insufficient information to propose a 5 MHz guard band as in the UK.

Synchronisation between networks is practical and occurs regularly

5.115 With regard to DECT Forum's comments on the practicality of synchronisation between WBB LMP and MFCN, ComReg observes that:

- The draft ECC Recommendation from FM60 envisages such synchronisation, and does not indicate any concerns from the mobile industry about its practicality, noting that representatives of the mobile

[80] As of Q1 2025, Three had deployed 627 sites countrywide in the frequency range 3700–3800 MHz. See further Mobile & WBB-Licensed apparatus & sites | Commission for Communications Regulation.
[81] The maximum output power for a DECT-2020 NR transmitter is 23 dBm in a channel bandwidth of 6.912 MHz, which is the widest available operating channel bandwidth for DECT-2020 NR. Source: ETSI TS 103 636-2 V1.6.1 (2025-07). This compares to a maximum EIRP of ≤ 24 dBm/channel for BW ≤ 20 MHz for WBB LMP base station in-block power as specified in ECC Decision (24)01.

industry have been heavily involved in developing the recommendation; and

- Other countries in Europe – Norway, Poland and the UK - that have already established WBB LMP type licensing frameworks require synchronisation in some cases, suggesting that such synchronisation is infeasible.

5.116 In view of the foregoing, ComReg remains of the view that it would be appropriate to:

- permit licensees to propose frame structures that are most suitable for each use case, noting, however, that ComReg might suggest amendments to these proposals for reasons of efficient planning or licensing purposes; and

- license deployments compatible with the default frame structure[82] in the lower part of the 3.8-4.2 GHz band and license other frame structures in other parts of the band.

Unsynchronised use is not prevented in the lower part of the band

5.117 ComReg notes that this approach does not prevent the licensing of WBB LMP systems in the lower part of the band that are not synchronised with WBB ECS below 3.8 GHz. Rather, it provides that WBB LMP systems that can synchronise with WBB ECS systems below 3.8 GHz will be assigned licences there in the first instance. Should unsynchronised use be required at the lower part of the band (e.g. where no alternative frequencies available), ComReg would take on board the recommendations from FM60 on setting the necessary out-of-band emission limits and appropriate guard bands to ensure no harmful interference occurs to MFCN below 3.8 GHz. FM60's work on this matter is expected to conclude in the first half of 2026 and ComReg envisages reflecting the outcome of FM60 in its proposed licensing framework.

Semi Synchronised use in the lower part of the band is also possible but with a higher risk of receiving interference

5.118 Further, with regard to licensing deployments compatible with the default frame structure in the lower part of the band, ComReg notes that semi-synchronisation, as well as synchronisation, would also be possible adjacent to 3.6 GHz Band as identified in FM60. Both synchronisation and semi-synchronisation would ensure that no downlink transmissions occur when MFCN is receiving uplink transmissions. However, while semi-synchronisation is possible, it would be at the risk of the WBB LMP service which might suffer

[82] As used in the 3.6 GHz Band.

interference from downlink transmissions from MFCN during its own uplink slots. Therefore, in ComReg's view, careful planning by prospective licensees would be necessary when considering implementing semi-synchronisation.

5.8 Licence Duration

5.8.1 Summary of ComReg's proposal in 25/46

5.119 ComReg was of the preliminary view that there is a need to achieve an appropriate balance between providing investment certainty/regulatory predictability and ensuring that ComReg has the means to act in the event of spectrum hoarding or inefficient use. ComReg noted that:

- there needs to be reasonable confidence that access to the spectrum is available over an appropriate period to underpin investment and to accommodate a reasonable return on investment.
- spectrum hoarding may be more likely to occur within a Private 5G licensing framework given that they are typically site specific, often in denser urban or industrial areas and the cost of holding a licence is not a sufficient deterrent.

5.120 With that in mind, ComReg proposed the following approach.

I. Potential Licensees would apply for a WBB LMP annual licence on a first come first served basis subject to satisfying the application requirements. Licensees would then be required to apply annually thereafter for the licence to be re-issued which would be provided by ComReg subject to compliance with licence conditions (e.g. rollout obligations) and payment of fees.

II. Any future ComReg decision to end the WBB LMP Licensing Framework in the future would be consulted upon and licensees would be provided sufficient notice of same.

5.121 ComReg also notes that the adoption of a statutory instrument in accordance with European harmonisation decisions provides regulatory certainty that promotes the long-term planning and coordination of spectrum to avoid harmful interference.

5.8.2 Summary of respondents' views to Document 25/46

5.122 ComReg received four responses in relation to licence duration.

5.123 Analog/Druid submit that a one-year licence, even with a tacit understanding on reissue, does not provide the certainty and clarity required for significant investment in network equipment. Alternatively, they suggest that:

- Licences should be granted for an initial term of 10 years with automatic renewal subject only to payment of the annual fee and basic compliance.
- A “use-it-or-share-it” clause should be added such that after 12 months at least one device must be operational; thereafter revocation only if spectrum lies fallow for > 24 months.

5.124 EUWENA submits that multi-year licences with seamless renewal, backed by sensible usage thresholds, such as activation within twelve months, to ensure spectrum is put to productive use.

5.125 Sigma submits that ComReg might consider a minimum 10-year licence with fees paid annually. Licensees would still have to remain technically compliant with the licence conditions including an annual compliance statement to ComReg. ComReg would retain all its rights of early termination as currently proposed.

5.126 Sigma contends that allowing such a 10-year licence would minimally change the actual conditions of the licence but would, in its view make it more attractive to the end user and allow the system to be viewed as a long-term viable and secure business solution.

5.8.3 Summary of DotEcon’s views

5.127 DotEcon makes the following observations in relation to the issues raised by respondents on licence duration.

5.128 First, ComReg could provide additional clarity on how it envisages licence renewals working in practice. For example:

- Annual renewal should be different to the initial application process and would not require repeated justification of the licensee’s spectrum requirements, network design etc.
- Licence renewal would effectively be automatic, dependent only on payment of annual licence fees and reporting each year on equipment usage and meeting rollout/usage obligations.

5.129 Second, ComReg could give clearer information on the long-term nature of this licensing framework. For example, by explaining that it would expect the licensing framework to be in place for a minimum number of years, providing licensees with sufficient time to achieve a return on private 5G (and other WBB LMP network) investments. DotEcon notes that this expectation would be credible, because the licensing framework is tied to a European Commission (EC) harmonisation Decision[83] which requires EU Member States to designate

[83] Decision (EU) 2025/2425 - https://docdb.cept.org/download/4862

and make spectrum available in the 3.8 – 4.2 GHz band for WBB LMP networks.

5.8.4 ComReg's assessment and view

5.130 ComReg addresses the issues raised by respondents above under two headings.

- 10 year licence proposal
- Seamless renewal

10 year licence proposal

5.131 Analog/Druid and Sigma separately propose a ten-year licence in order to provide sufficient certainty, in their view, that they could recover their investments and earn a reasonable return over the life of the deployed network.

5.132 ComReg notes that licences granted for an initial term of ten-years would significantly increase the risk of spectrum hoarding and/or inefficient use. As noted in Document 25/46, there is a higher risk of spectrum hoarding and/or inefficient use within a Private 5G licensing framework because user requirements are typically site specific, often in denser urban or industrial areas where demand for connectivity is likely to be high and the cost of holding a licence is not a sufficient deterrent in itself. Absent an appropriate mechanism for ComReg to reassign rights of use, bad actors or inefficient users could effectively sterilise certain areas for long periods (e.g. up to 10 years) thereby denying it to more efficient users (which could include Druid, Analog and Sigma).

5.133 Analog/Druid's proposal for a "*use it or share it*" clause would still provide a licensee with the opportunity to hoard rights of use, or use inefficiently for a period of up to three years (i.e. proposed revocation would occur 24 months after initial 12 month period according to Analog). ComReg also notes that, "*a use it or share it*" clause would be less than straightforward to implement and would likely extend the period over which spectrum would be inefficiently used or lie fallow. In particular, it would require ComReg to undertake an evidence-based assessment to determine that spectrum rights of use were being hoarded and/or used inefficiently.

5.134 Such an assessment would be necessarily timely and could be subject to adjudication[84] and/or legal challenge which would add to the time over which spectrum was left unused, thereby denying it to more efficient users.

[84] Part 7 of the Communications Regulation and Digital Hub Development Agency (Amendment) Act 2023 (the "2023 Act") introduces an independent adjudication process into the regulatory regime enforced by the Commission for Communications Regulation (the "Commission").

Alternatively, under ComReg's proposals those rights of use that were being hoarded or inefficiently used could be reassigned to other users shortly after the time for renewal. While any decision not to renew rights of use to a particular licensee for another year could also be subject to adjudication or legal challenge, the rights of use would at least be assigned to a more efficient user in the intervening period.

5.135 Notwithstanding, ComReg agrees with DotEcon that more clarity on the approach to licence duration should be made available in order to provide sufficient comfort that efficient investments would be allowed to earn a return and productive use cases would be facilitated. ComReg remains conscious of the need to provide regulatory predictability in relation to the availability of spectrum rights of use to enable efficient investments. In that regard, ComReg provides the following clarity on how licensing for WBB LMP licences would operate.

5.136 First, while a justification would be needed on application for the requested frequency, bandwidth, power etc (See other Sections of this chapter), each subsequent annual renewal would not require that level of interaction and a licence would be renewed automatically subject to the payment of annual licence fees[85] and the licensee's compliance with its licence conditions, including rollout and usage obligations[86]. As noted in Document 25/46, by consistently meeting the licence conditions and paying annual spectrum fees, licensees themselves are actively controlling the duration and continuity of their usage rights, helping to safeguard that licences remain in place for the duration that they require. There is no reason why a licensee that pays its fees and satisfies its rollout and usage conditions cannot continue to enjoy spectrum rights of use.

5.137 This is not a new approach, in fact, such an approach has been employed across a wide range of use cases and proven successful in encouraging efficient investment. As noted by DotEcon, the Regulations for Fixed Radio Link licences, which are annually renewed licences, have been in place since 1992[87],. While these Regulations were revoked and replaced in 2009[88] and 2023[89], users issued with annual renewable licences have continued to have access to their licensed spectrum.

[85] See Chapter 7

[86] See Section 5.9

[87] S.I. No. 319/1992 - Wireless Telegraphy (Radio Link Licence) Regulations, 1992, https://www.irishstatutebook.ie/eli/1992/si/319/

[88] S.I. No. 370/2009 - Wireless Telegraphy (Radio Link Licence) Regulations, 2009, https://www.irishstatutebook.ie/eli/2009/si/370/

[89] S.I. No. 593 of 2023 WIRELESS TELEGRAPHY (FIXED RADIO LINK LICENCE) REGULATIONS 2023, https://www.comreg.ie/media/2023/12/SI-593-of-2023.pdf

5.138 Second, in relation to concerns that such an approach would not provide sufficient certainty that spectrum would be made available for WBB LMP in the future, ComReg notes that the adoption of a statutory instrument in accordance with European harmonisation decisions provides sufficient regulatory certainty that promotes the long-term planning and coordination of spectrum to avoid harmful interference. There is little prospect that spectrum currently being made available for WBB LMP will be reallocated to a different use over the term of a licensees investment cycle. The Commission Implementing Decision is among other things designed to provide long term certainty that the prescribed spectrum will be made available over a long period such that investment decisions can be made. Once spectrum is harmonised any fundamental change is exceptionally rare and would itself require an amending Commission Implementing Decision – a process that typically takes several years and involves extensive technical analysis by CEPT.

5.139 Similarly, ComReg is highly unlikely to significantly depart from the framework it is now proposing (other than improving its functionality in any future review,). Indeed, experience illustrates that reviews of established licensing regimes are infrequent. For example:

- The Fixed links frameworks which is an annually renewable framework was reviewed in 2024 having been in place for the previous 15 years.[90]
- The Satellite Earth Station Licensing Scheme was reviewed in 2024 having been in place for the previous 16 years[91]
- The PMR framework is currently being reviewed and depending on the licence type has been in place since 1949.[92]

Seamless renewal

5.140 In relation to the EUWENA view that multi-year licences with "*seamless"* renewal, backed by sensible usage thresholds, ComReg notes that this is broadly in line with its proposals. Thousands of spectrum licences in Ireland are issued with a one-year duration and renewed annually including, for example, the fixed radio link licences which are used by many operators for their backhaul networks. While the licences issued are for one year, these licensing frameworks provide operators with long-term access to spectrum as the licensing frameworks generally have no expiry dates set in the corresponding

[90] Review of the Fixed Radio Links Licensing Regime: Response to Consultation and Decision | Commission for Communications Regulation

[91] Review of the Satellite Earth Station Licensing Regime – DotEcon Report | Commission for Communications Regulation

[92] Business Radio and PMSE framework was first established in 1949 followed by Paging and community repeaters in 1988, Trunked Radio in 2002 and Third Party Business Radio in 2005.

Regulations.

5.141 Therefore, ComReg's preliminary view is that annually renewable licences are appropriate for the WBB LMP licensing framework.

5.9 Rollout and usage obligations

5.9.1 Summary of ComReg's proposal in 25/46

5.142 In Document 25/46 ComReg proposed that rollout and usage obligations should be attached to all WBB LMP licences. ComReg set out key information which informed this view, which included:

- Schedule 1 to the EECC Regulations (S.I 444 of 2022) provides that obligations to ensure the effective and efficient use of spectrum may be attached to spectrum rights of use. Such obligations can include both rollout and usage obligations;

5.143 ComReg noted Plum observations that, four of the six European countries (UK, Norway, Germany and Sweden) that had put in place licensing frameworks for WBBB LMP have included rollout and usage obligations that requires licensed spectrum to be put into use within 6 to 12 months of the licence award;

5.144 ComReg noted DotEcon views that:

- to aid efficient use ComReg might consider the use of base station rollout and usage obligations. DotEcon noted that the obligation should allow sufficient time for project development where usage requirements and a default 6-month rollout obligation would apply from first licence issue and that there could be merit in considering additional rollout obligations for licence applications with more impact on potential neighbouring users; and

- some exceptional private network deployments might have significantly longer roll out periods (e.g. a large overall development project, such as a new transport system), and ComReg, at its discretion, could consider whether longer rollout periods might be justified in those cases, subject to sufficient evidence and justification;

5.145 ComReg noted that in the present case using the regulatory tools available to it would be particularly important as the spectrum use of one party could prevent the licensing of the same spectrum over a large area, noting that the indicative re-use distance for medium power unsynchronised operation is circa 22 km.

5.146 ComReg further noted that a usage obligation is also likely to be important in the WBB LMP framework, as there might be situations where a base station is

brought into operation but is not used.

5.147 ComReg set out it's understanding that some prospective licensees may have multi-year projects with deployments longer than 6 months and may request longer deployment timelines. ComReg outlined that it would encourage any prospective licensees with multi-year projects to discuss matters with it prior to application and that these could be licensed on an exceptional basis.

5.148 In light of the analysis set out in the Section 6.9 of Document 25/46, ComReg was of the preliminary view that there should be a standard rollout and usage requirement and that longer deployments would be on an exceptional basis. The standard rollout and usage obligation would include:

- **A Base Station Rollout obligation**: For each licence issued (low power or medium power) the licensee should be required to install, work and use one base station within 6 months of licence commencement.
- **A Usage obligation**: For each licence issued (low power or medium power) the licensee should be required to put all of the spectrum licensed into use within 6 months and actively use one or more user terminals within this period. To demonstrate that all the licensed spectrum is being efficiently used applications for large amounts of bandwidth or applications which have a large impact on the availability of spectrum (i.e. medium power applications) would likely need to deploy multiple user terminals.
- **A Base Station Log obligation**: For each base station licensed, the licensee should be required to maintain a daily base station traffic log that is of sufficient detail to demonstrate to ComReg's satisfaction the usage of this base station (e.g. traffic, frequency used, time of transmissions) on the WBB LMP network and the interactions with terminal stations on the network.
- **A reporting on compliance obligation**: at the appropriate time (e.g. at 6 months from licence commencement) licensees would be required to report to ComReg on the above obligations.

5.9.2 Summary of respondents' views to document 25/46

5.149 Five respondents commented on the rollout and usage obligation, and none favoured ComReg's proposal (Analog/Druid, Sigma, EUWENA and TII), suggesting that longer rollout periods are required.

5.150 Analog/Druid contend that the rollout timeframe should be greater than or equal to 24 months with phased activation allowed. They argue that the 6 months

rollout proposed is at the lowest end of the international benchmark and does not allow time to purchase, import and install equipment, noting that equipment will typically not be ordered until a licence is issued. They further note that the proposal for 6 months is incompatible with phased plant upgrades and regulatory gating (HAZOP[93], GMP[94], etc…) and that the proposal ignores current lead times for radio equipment in this band. They further contend that it creates a situation where applicants may have to order equipment before applying for a licence to have it delivered and installed within 6 months of licence issue.

5.151 EUWENA contends that multi-year licences should be available with seamless renewal backed by sensible usage thresholds, such as activation within twelve months, to ensure spectrum is put to productive use. It favours rollout obligations that are phased, with enterprises allowed eighteen to twenty-four months for deployment and then only light-touch milestone reporting during that period.

5.152 Sigma submits that the timelines proposed of a 6-month rollout and usage obligation might be difficult to achieve in many cases. It contends that a customer might be unwilling to place an order for 5G network equipment, or in some cases before committing to the costs and resources of a system design, unless the WBB LMP licence is granted. Sigma contends that there may be long lead times (of 12 to 16 weeks) for equipment delivery, and again for deployment scheduling which may be dependent on other operational or budgetary considerations of the business. While Sigma acknowledges that ComReg does provide for exceptional cases in paragraphs 6.109 and 6.110 of Document 25/46, Sigma contends that a rollout and spectrum usage period could in its view be set at 18 months as standard with an obligation on the licensee to report and demonstrate progress is being made, at regular intervals of 6 months.

5.153 TII submits that a six-month activation period may prove insufficient for the deployment of major public transport infrastructure, such as metro and tram systems, adding that "*to support the effective rollout of critical connectivity solutions, it would be advisable for ComReg to consider extending this timeframe or introducing exemptions for large-scale projects and potential future project extensions*".

[93] A HAZOP, or Hazard and Operability Study, is a systematic and structured method for a multidisciplinary team to identify potential hazards and operability problems in a complex system, typically a chemical or process plant.

[94] GMP, or Good Manufacturing Practice, is a system of quality control that ensures products like pharmaceuticals, food, and cosmetics are consistently produced and controlled to quality standards appropriate for their intended use

5.9.3 Summary of DotEcon's views

5.154 DotEcon is of the view that ComReg could reasonably allow a somewhat longer rollout duration.

5.155 For standard applications, DotEcon notes that a period in the region of nine months would seem to balance the concerns raised by respondents about the longer time horizons whilst also protecting against spectrum sitting unused for significant periods of time and denying access to other potential operators who could make more immediate use of a valuable resource. DotEcon contends that ComReg would then have time in which to consider what action (if any) to take with the licensee and whether (and on what terms) licence renewal would be allowed on expiry. DotEcon observed that this approach is aligned with peer countries noting that Sweden, Netherlands, Germany and Belgium have rollout periods of between 6 months and one year.

5.156 For large scale projects that might take a significant amount of time to complete but need certainty over access to spectrum sufficiently early to effectively plan and integrate a network, DotEcon notes that a longer timeframe could be more appropriate for justified cases at the discretion of ComReg. DotEcon notes that the longer rollout period should be limited to avoid a proliferation of requests for excessively long rollout deadlines. DotEcon advises a 3-year maximum limit and notes that this is a maximum and not a default. ComReg should consider applications with sufficient justification and details of their proposed deployment process (e.g. a detailed rollout plan with interim milestones). ComReg could then assess and accept/reject the plan at its discretion, or request adjustments or further details. Licensees would then be given a rollout period of between nine and 36 months, corresponding to the duration they have demonstrated necessary for the project.

5.157 DotEcon notes that the expected number of licensees for the longer rollout obligation would likely be limited. However, it would likely impose additional costs on ComReg through a more detailed application process as well as ongoing administrative/monitoring costs. DotEcon recommends an additional fee would be charged for any licences issued for longer rollout licences until the rollout obligation is met.

5.158 DotEcon notes that anything beyond the options identified above might be considered as an exceptional case at the sole discretion of ComReg.

5.9.4 Summary of Plum's views

5.159 Plum considered the submissions by respondents and in summary observed that:

- in the UK and Sweden rollout obligations must be within 6 months from licence award and in Norway and Germany within 12 months; and,
- current equipment lead-times for low power devices may only be a few days while those for complex MP networks will be measured in months. Plum also observed that there could also be issues with regard to site rental/access and availability of installation staff.

5.160 Considering the submissions and the above information, Plum suggest that a 9–12-month rollout obligation is probably more appropriate for most systems.

5.161 In the case of larger, more complex systems, Plum considers that the standard rollout period of 9-12 months may be impractical to achieve (e.g. noting that final system design may depend on the licence issue, etc..) and that the possibility of a longer roll-out obligation (e.g. up to 3 years) with interim milestones is probably appropriate in cases where it is fully justified.

5.9.5 ComReg's assessment and view

5.162 ComReg notes the submissions received and the recommendations made by DotEcon and Plum.

5.163 ComReg has also considered the application of a rollout and usage licence condition on WBB LMP licences in a draft Regulatory Impact Assessment (RIA) as detailed in Chapter 6. The draft RIA has considered a number of options with respect to applying a rollout obligation as follows:

- **Option 1 –** No rollout or usage obligation. This would mean that each licensee would have full flexibility to choose how extensive, or timely their rollout would be regardless of the amount of spectrum rights of use assigned.
- **Option 2 –** A 6-month rollout and usage obligation as standard with up to 3 years allowed where sufficient justification is provided to ComReg.
    - For each standard rollout rights of use issued (low power or medium power), the licensee would be required to install, work and use the spectrum rights of use on at least one base station and one terminal station within 6 months of its commencement.
    - Where up to 3 years has been provided by ComReg, the licensee would be required to install, work and use the spectrum rights of use on the base station(s) and terminal station(s) as set out in its rollout commitments within that period.

- **Option 3 -** A 9-month rollout and usage obligation as standard with up to 3 years allowed where sufficient justification is provided to ComReg.
    - For each standard rollout rights of use issued (low power or medium power), the licensee would be required to install, work and use the spectrum rights of use on least one base station and one terminal station within 9 months of its commencement.
    - Where up to 3 years has been provided by ComReg, the licensee would be required to install, work and use the spectrum rights of use on the base station(s) and terminal stations as set out in its rollout commitments within that period.
- **Option 4 –** A 2 - 3 year rollout and usage obligation as standard. For each licence issued (low power or medium power), the licensee would be required to install, work and use one base station within 3 years of licence commencement. Longer rollout periods would be considered on an exceptional basis only.

5.164 Having considered the above options in its draft RIA in Chapter 6 below, ComReg is of the preliminary view that Option 3 (a 9 month rollout and usage obligation as standard with up to 3 years allowed where sufficient justification is provided to ComReg) is preferred in terms of the impact on stakeholders, competition and consumers.

5.165 In light of the above, ComReg proposes to make adjustments to the rollout and usage obligations as follows:

1. to extend the standard rollout and usage obligation from 6 months to 9 months; and,
2. to formalise the method by which applicants can obtain longer rollout and usage obligations for larger complex projects and provide for rollout and usage obligations of <u>up to a maximum of 3 years</u> from first licence issue. The obligations in this case would be determined based on the application made to ComReg, which will need to include a sufficiently detailed rollout plan being provided to ComReg; and,
3. Aside from the above, and for exceptional cases only, ComReg would retain discretion to provide for rollout and usage obligation for alternative periods.

5.166 In relation to the longer rollout obligation and any exceptional cases, Applicants would need to set out its rollout plan in the form of a commitment (Paragraph D.7 of Schedule 1 of S.I. 444 of 2022) to achieve the rollout and usage plan as envisaged. If ComReg approves the proposed longer or exceptional rollout durations, the proposed rollout would be included as a condition of the licence

to rollout each LP and MP by a defined date (“Rollout Commitments”). ComReg will then assess and monitor rollout based on such rollout commitments as captured in the relevant licence.

5.10 Sharing and Compatibility

5.10.1 Summary of ComReg’s proposal in Document 25/46

5.167 In Section 6.13 of Document 25/46, ComReg set out its preliminary views in relation to the relevant coexistence scenarios for WBB LMP with incumbent services in-band and in adjacent bands and between WBB LMP networks in-band, as summarised below.

WBB ECS below 3.8 GHz and WBB LMP

5.168 ComReg’s proposals on this matter are addressed above in section 5.7, as they relate to synchronisation.

Radio altimeters above 4.2 GHz and WBB LMP

5.169 ComReg noted that existing approaches to coordination between WBB LMP networks and Radio Altimeters in other European countries were not relevant to ComReg’s current considerations, as they were adopted before CEPT had concluded its studies and begun to develop its recommendations.

5.170 Instead, ComReg proposed to adopt the unwanted emission levels for WBB LMP base stations above 4.2 GHz to protect radio altimeters, as specified in the then draft EC Implementing Decision, as these levels were developed by CEPT for the European Commission as part of harmonised technical conditions for the shared use of the 3.8-4.2 GHz Band

5.171 With regard to the protection of Radio Altimeters from potential spurious emissions from medium power AAS WBB LMP base stations in 4100-4200 MHz, ComReg considered that the appropriate approach would be to identify coordination zones around runways where precision approach procedures are used, as indicated by CEPT, the European Commission and Plum. However, ComReg did not yet propose a particular methodology for defining runway coordination zones and stated that it would monitor the ongoing work of FM60 on this matter.

Fixed Satellite Service in the 3.8-4.2 GHz

5.172 ComReg noted that CEPT Report 88, FM60 and the Plum Report indicated that large separation distances and coordination areas could be required to protect Satellite Earth Stations from WBB LMP networks, which could prove challenging for coexistence between WBB LMP networks and Satellite Earth

Stations in the band.

5.173 Considering the potential benefits for the Irish economy of private networks, in particular private 5G Networks, the absence of incumbent Satellite Earth Station licensees in the 3.8 - 4.2 GHz Band, and that no applications had been received in a decade, ComReg proposed to close the band to further applications for Satellite Earth Station Licences as of 30 September 2025.

In-band (WBB LMP)

5.174 Informed by Plum's recommendations, ComReg proposed to specify maximum levels of interference to victim networks, for co channel and adjacent channel coexistence, where relevant. As such, ComReg saw no need to specify adjacent channel emission masks in relation to adjacent channel interference, as per the already established long-term licensing frameworks for WBB LMP type networks in Belgium, Poland and the UK. ComReg stated that it would continue to monitor the work of FM60 on these matters.

5.10.2 Summary of respondents' views to Document 25/46

5.175 No respondent commented on ComReg's proposals in relation to (i) coexistence between WBB LMP and radio altimeters above 4.2 GHz or (ii) on its proposals in relation to the future of the Fixed Satellite Service in the 3.8-4.2 GHz Band.

5.176 Analog/Druid made submissions that were related to in band coexistence, however as they also related to synchronisation and the licensing and network planning approach, they have been addressed in sections 5.6 and 5.7 above.

5.10.3 Summary of Plum's views

5.177 With regard to coexistence between WBB LMP and Radio altimeters above 4.2 GHz, Plum observes that the ECC Recommendation being developed by FM60 regarding radio altimeters still requires updating of the example of a zone in close vicinity of runways to take account of lateral deviation of an aircraft during final approach that was not part of the ECC Report 362 coordination zone description.

5.10.4 ComReg's assessment and view

Radio altimeters above 4.2 GHz and WBB LMP

5.178 Given that no respondents commented on ComReg's preliminary views on this matter and nothing that FM 60 has yet to finalise its work on setting out an example in its draft ECC Recommendation of how to define a co-ordination zone for medium power AAS WBB LMP base stations in 4100-4200 MHz in

close vicinity of runways to take account of lateral deviation of an aircraft during final approach. ComReg remains of the view that:

- it is appropriate to adopt as a licence condition for WBB LMP networks the maximum unwanted emission levels above 4.2 GHz for WBB LMP base stations to protect radio altimeters that are mandatory in the EC Implementing Decision; and
- the coordination zone approach is appropriate in relation to medium power AAS WBB LMP base stations in 4100-4200 MHz in close vicinity of runways.

5.179 However, while ComReg does not propose at this stage a particular methodology for defining runway coordination zones, it envisages adopting the recommended approach to establishing a coordination zone following the conclusion of the work of FM60.

Fixed Satellite Service in the 3.8-4.2 GHz

5.180 Given that there was no dissention in relation to the future of the 3.8-4.2 GHz Band for the Fixed Satellite Service in Ireland, ComReg can confirm that the band is now closed to further applications for Satellite Earth Station Licences. ComReg will update its Satellite Earth Station Licensing Guidelines to reflect this change in availability of the band.

In-band (WBB LMP)

5.181 ComReg did not receive any submissions on the interference levels proposed in Document 25/46. The work of FM60 has not generated any work items that would cause ComReg to reconsider the interference levels set out in Document 25/46. Therefore, in light of the above ComReg will use the interference levels proposed by Plum (See Table 3.1 of Plum Report) in establishing whether systems can be licensed and will continue to monitor the work of FM60 and publications by the ECC[95] to consider whether any updates there are relevant to apply.

5.11 Other issues

5.182 The following section deals with matters that were set out under Section 6.12 of Document 25/46 or where ComReg is providing further information.

[95] https://cept.org/ecc

5.11.1 Publication of information on existing licences

Summary of ComReg's View in Document 25/46

5.183 As the details of existing WBB LMP licences (i.e. location, frequency, bandwidth, power, etc.) would influence ComReg's ability to issue new WBB LMP licences to applicants, ComReg set out its preliminary view that it is necessary to publish relevant details of existing licences, so that prospective licensees can understand spectrum availability prior to application.

5.184 ComReg's noted that its general policy is that information concerning radio spectrum licences is published on ComReg's website, as among other things this:

- facilitates compliance with the relevant requirements under the Access to Information on the Environment Regulations 2007; and
- helps ensure the efficient management of the radio spectrum, for example in allowing inter-licensee communications that facilitate new applications or inform interference issues between licensees.

5.185 ComReg proposed that relevant information on WBB LMP licences would be published on ComReg's website, for example on its Siteviewer tool, noting that there would be some development and associated cost to ComReg arising from same.

ComReg's assessment and view

5.186 ComReg did not receive any submissions to the above proposals and ComReg therefore remains of the view that relevant information on WBB LMP licences will be published on ComReg's website.

5.11.2 Applicant coordination with existing licensees

Summary of ComReg's View in Document 25/46

5.187 In section 6.12.2 of Document 25/46, ComReg noted that, before submitting an application, or following the rejection of an application by ComReg, an applicant might wish to co-ordinate its application with existing licensees with the aim of facilitating a successful application request and/or agreeing suggested amendments to existing licences, that might facilitate its application.

5.188 ComReg considered that, in such circumstances, both prospective and existing licensees would need to agree any proposed amendments to the existing licences, which they then would have to notify to ComReg for its review and approval.

Summary of respondents' views

5.189 DECT Forum contends that applicant coordination with existing licensees is difficult to achieve in practice without some form of regulatory obligation for existing licensees to engage with new entrants. DECT Forum contends that an existing licensee has no incentive to engage with a new applicant and may not have the skills to do so. DECT Forum raises a concern that there may be costs to an existing licensee in contracting a third-party to manage any negotiation and that they may need to reconfigure their networks to something that is sub-optimal.

Summary of Plum's views

5.190 Plum notes that ComReg has not proposed that an agreement must be reached with other operators, rather that coordination is a possible method to facilitate two systems to work together and facilitate licensing.

ComReg's assessment and view

5.191 ComReg notes the submission from DECT Forum and the views of Plum and is in accord with Plum's views.

5.192 ComReg is not mandating coordination or a requirement to make any changes to an existing licence on foot of discussions between an existing licensee and an Applicant. Rather, ComReg is providing for a situation where an applicant can discuss its plans with an existing licensee(s) and potentially agree a method of coexisting together that is case specific that would allow ComReg to issue a licence to the Applicant that would not have been otherwise possible without that agreement[96].

5.193 As noted previously the establishment of the WBB LMP licensing scheme to allow for the deployment of private 5G networks is new and practical experience may show that systems can operate more closely together than the studies have indicated, Indeed DECT Forum noted that some of the studies may be conservative.

5.194 ComReg is of the view that allowing for existing licensees and applicants to coordinate with each other and come to agreements on a mutual basis is in the interests of promoting innovation, the efficient use of spectrum and providing for shared use. This coordination will be important in obtaining practical experience of what systems can work together.

[96] For example, it may be in both parties' interest to come to a workable solution, where in the case of a 3GPP system they may agree to synchronise their networks to eliminate potential interference, or agree to tolerate a higher level of interference than what ComReg is calculating as part of its technical licensing checks.

5.11.3 Equipment to operate across the full band

Summary of ComReg's View in Document 25/46

5.195 ComReg set out the view that any equipment licensed in the band would be capable of operating across the full frequency range of the 3.8-4.2 GHz Band. ComReg noted that this obligation is also in place in Norway (Nkom) and that among other things, this full band capability would help ComReg ensure the efficient use of spectrum.

Summary of respondents views

5.196 DECT Forum supports the proposal that equipment works across the whole band. This provides spectrum management flexibility to optimize the efficient use of spectrum in a technology neutral way.

ComReg's assessment and view

5.197 ComReg notes the respondents that provided views on this point were supportive of the proposal. ComReg observes that this proposal is appropriate as it would allow ComReg to manage the spectrum within the band and ensure the efficient use of spectrum. In particular, over time should the band become more congested, ComReg would retain the ability to modify the frequencies licensed to licensees in justified and appropriate cases[97].

5.11.4 Licensing of apparatus (base station and terminal station)

Summary of ComReg's view in Document 25/46

5.198 ComReg noted that any WBB LMP licence issued would cover all apparatus using the spectrum rights in the WBB LMP licence, including base station equipment and user equipment or terminals. In the application process, and each subsequent renewal process, the applicant/licensee would be required to provide relevant details of this apparatus and maintain and submit same to ComReg.

Summary of Respondents' views to Document 25/46

5.199 DECT Forum supports the proposal that a licence would cover all apparatus, however, it contends that, ComReg should carefully consider its wording in the licence, e.g. regarding the definition of 'base station', to ensure there are no unintended barriers to new technologies.

[97] For example should it be beneficial to facilitate compatibility between licensees or to make more efficient use of the band to allow new users.

ComReg's assessment and view

5.200 ComReg notes the support provided for this proposal as submitted by DECT Forum. ComReg maintains the view that both base station and terminal stations details should be included on a WBB LMP licence. Regarding the definition fo base station, ComReg has considered this point in section 5.3 above.

5.11.5 ComReg discretion to amend licences

Summary of ComReg's view in Document 25/46

5.201 In Document 25/46, ComReg set out that in line with Article 14 of the EECC Regulations, ComReg would retain discretion to amend WBB LMP licences in objectively justified cases and in a proportionate manner.

5.202 ComReg noted that its ability to license new applications is dependent on the set-up of existing licensees (e.g. frequency, bandwidth, power, synchronisation profile etc.), ComReg notes that it may be necessary to make amendments to existing licences to ensure the effective management and efficient use of spectrum.

Summary of Respondents' views to Document 25/46

5.203 No respondents submitted views on this item

ComReg's assessment and view

5.204 In light of the above, ComReg remains of the view that it would have discretion to amend licences line with Article 14 of the EECC Regulations in objectively justified cases and in a proportionate manner.

5.11.6 Mobile network codes

Summary of ComReg's view in Document 25/46

5.205 In section 6.12.6 of Document 25/46, ComReg observed that some licensees may require use of a mobile network code (MNC) for their private mobile networks and that ECC Recommendation (17) 02[98] sets out several options for such use.

5.206 ComReg indicated its plans to review its numbering conditions in 2026 and that it could consider these options, and perhaps others, in a consultation. ComReg encouraged any applicants requiring a MNC in advance of this consultation to

[98] ECC/REC/(17)02 of 31 May 2017 on harmonised European Management and Assignment Principles for E.212 Mobile Network Codes (MNCs)

contact ComReg's numbering team.

Summary of Respondents' views to Document 25/46

5.207 The DECT Forum notes that DECT-2020 NR does not require MNCs and suggests that they should not be obligatory under a licence.

ComReg's assessment and view

5.208 In Document 25/46 ComReg observed that some licensees might require use of a MNC for their private mobile networks, and indicated its plans to consult on options for the use of MNCs, among other things, as part of a review of its numbering conditions. As such, ComReg did not propose to make MNCs obligatory under a WBB LMP licence. ComReg's observations merely related to cases where WBB Licensees might themselves require use of MNCs and potential options for such use. Therefore, ComReg wishes to clarify that it does not propose to include a MNC obligation as a licence condition.

5.209 Notwithstanding, ComReg still plans to review and consult on its numbering conditions, including options for private network MNCs, in 2026. In the meantime, as previously recommended, any applicants requiring a MNC should contact ComReg's numbering team.

5.11.7 International / cross-border coordination

5.210 ComReg notes that the introduction of WBB LMP in the 3.8 – 4.2 GHz Band may require cross-border coordination and bilateral cooperation in order to avoid harmful interference to other spectrum users (particularly in the UK and Northern Ireland) and to improve spectrum efficiency and convergence in spectrum use.

5.211 If required, ComReg may enter into coordination agreements or/and MoU's to enable operation of the WBB LMP networks particularly near border areas and appropriately protect incumbent spectrum users in line with the proposed technical conditions and international developments at CEPT and EC level. In line with other licence types, it would be a condition of a WBB LMP licence to abide by any such MoU or coordination agreement entered into by ComReg.

5.11.8 Application process

Summary of ComReg's view in Document 25/46

5.212 In Section 6.11 of Document 25/46, ComReg envisaged three application stages for WBB LMP licences, as summarised here:

Stage 1 - Pre-application queries and engagement

5.213 Before applying, prospective licensees could discuss their proposed application(s) with ComReg. This would assist prospective licensees with tailoring their application to their specific circumstances, understanding any potential constraints (e.g. frequency, bandwidth, synchronisation) at the relevant location arising from the need to avoid interference to existing licensees, and understanding how best to phase their applications in order to meet rollout and usage obligation timelines.

Stage 2 - Application for an initial licence

5.214 Applicants would need to justify the frequency, bandwidth, power, etc. that they are requesting, and to include sufficient information on their proposed deployment to allow ComReg to assess the application. ComReg would assess every application, and if satisfied with the frequency and bandwidth etc. being applied for, ComReg would conduct technical checks consisting primarily of a high-level check on the re-use distance to existing licences which overlap in frequency, and, where necessary, a detailed technical assessment of the proposed deployment against permitted interference levels to existing licensees. ComReg might then either:

(a) approve the application;

(b) request the applicant amend its application so it could be approved; or

(c) reject the application, noting that the applicant could submit a new modified application, e.g. based on further coordination with existing licensees.

Stage 3 - Application for a renewal licence

5.215 Applying to renew a licence would entail the same process as applying for an initial licence, except that ComReg would consider the licensee's compliance with its licence conditions, including rollout and usage obligations, and technical assessment should be less onerous than in the case of the original application, absent any modifications to the licensee's set-up.

Summary of respondents' views to document 25/46

5.216 Analog/Druid request that ComReg indicate how long it would take to process applications, in order to provide clarity to applicants on timelines. They opine that having to submit a detailed technical dossier for licence renewal would require additional work, increase their costs and would be disproportionate to the interference risk, and contend that technical assessment for renewals should be a simplified one-page self-declaration. Further, they suggest that ComReg establish an online self-service portal similar to Ofcom's portal for Shared Access licences.

5.217 TII states that its public transport infrastructure projects entail extended procurement timelines and that the detail of a proposed system relevant to a licence application only becomes available following procurement completion. To mitigate the risk of such projects being unable to access WBB LMP spectrum when needed, TII suggests that ComReg considers an exemption mechanism for such as an initial licence reservation and with reduced fees for publicly funded infrastructure projects.

ComReg's assessment and view

5.218 As no respondents disagreed with ComReg's proposals in Document 25/46 for three distinct licence application stages, ComReg remains of the view such an approach is appropriate.

5.219 With regard to the proposals from Analog/Druid regarding licence application processing times, simplified declarations for licence renewals and an online licensing portal, ComReg notes that it:

- aims to process licence applications in general within 25 working days, subject to having all of the information required to assess and process the applications, and the number of applications across all licence types being processed by ComReg at the time in question;
- could consider a simplified self-declaration of licence technical details for renewing licensees whose apparatus and network configuration have not changed since the initial application or previous renewal, as the case may be; and
- understands that Ofcom's online licensing portal[99] allows applicants to apply for a new licence or existing licensees to manage their licences however, this is not a self-service system that allows applicants to assign their own frequencies and self-process a licence application. Indeed, ComReg's eLicensing portal[100] is similar to Ofcom's licensing portal. ComReg intends to facilitate licence applications and management for WBB LMP licences and accounts on its eLicensing portal.

5.220 In relation to TII's proposal for an exemption mechanism such as an initial licence reservation with reduced fees for publicly funded infrastructure projects, ComReg notes that, in section 5.9 above, it proposes longer rollout and usage obligations for larger complex projects of up to a maximum of 3 years from first licence issue. In ComReg's view, this would provide a mechanism for organisations planning large infrastructure projects to acquire spectrum in

[99] https://www.ofcom.org.uk/spectrum/radio-equipment/licensing-portals
[100] https://elicensing.comreg.ie/

advance for a WBB LMP network at an early stage of a project without having to roll out a network in a short timeframe, thus providing certainty as to the availability of such spectrum when the project is complete.

5.221 ComReg notes that an application for such a licence with extended rollout obligations would need to include basic details of the intended network such as power, bandwidth, target coverage area and target service, so that ComReg would be able to assess the impact on existing and future users and ensure the efficient use of spectrum. In that regard, ComReg acknowledges that the precise detail of the eventual WBB LMP deployment may not be known at the time of application for an initial licence. Nevertheless, if the overall use case requirements and the extent of geographic footprint of the proposed infrastructure and therefore the likely licence service area are known, ComReg could work with intending applicants in understanding the likely requirements for an application for a licence appropriate to such requirements. The licence could subsequently be amended to reflect any design changes to the planned WBB LMP deployment that might occur as the project progresses and network design needs are more clearly understood, subject of course to protecting other existing users from interference.

5.222 With regard to TII's suggestion for reduced fees for an initial licence for publicly funded infrastructure projects, such an approach would not be appropriate, noting that:

- the fee charged would need to be the same as that set out in Chapter 7 above, as assigning the spectrum to one user in an area prevents the use by other potential users;
- licence fees would be set with a view to promoting efficient spectrum use ensures that the best use is made of a scarce resource and minimises the risk that access to spectrum becomes restricted;
- ComReg set out its preliminary view in section 6.10 of Document 25/46 that spectrum fees for WBB LMP should reflect the need to ensure the optimal use of the spectrum by considering each of several factors referred to by DotEcon, including relevantly:
    - Administrative cost recovery: fees collected from the licensing scheme should cover ComReg's associated costs; and
    - Incentives for efficient use: the framework should encourage the efficient assignment and use of 3.8-4.2 GHz spectrum and ensure prospective licensees seek only sufficient spectrum to operate; and
- ComReg does not exempt licence fees in respect of other licence types.

5.223 Further, ComReg considers that incentivising efficient assignment of spectrum would be relevant regardless of whether a licence relates to the rollout phase of a network where the spectrum might not yet be in use or to a network actively in use. This is in order to avoid more spectrum than is necessary being unduly assigned for the rollout phase of a network due to insufficient spectrum planning, where it might later transpire at later design stages of the relevant infrastructure project that less spectrum is actually required. As such, ComReg considers that reducing the licence fee initially would not be consistent with incentivising efficient use of spectrum.

Chapter 6

6 WBB LMP Draft Rollout and usage RIA

6.1 Introduction

6.1 In Section 6.9 of Document 25/46, ComReg set out its preliminary view that rollout and usage obligations should be attached to all WBB LMP licences. In ComReg's view, the standard rollout and usage obligation would include:

- A Base Station Rollout obligation: For each licence issued (low power and/or medium power) the licensee would be required to install, work and use one base station within 6 months of licence commencement.
- A Usage obligation: For each licence issued (low power and/or medium power) the licensee would be required to put all of the spectrum licensed into use within 6 months and actively use one or more user terminals within this time period. [101]
- A Base Station Log obligation: For each base station licensed, the licensee would be required to maintain a daily base station traffic log that is of sufficient detail to demonstrate to ComReg's satisfaction the usage of this base station on the WBB LMP network.
- A reporting obligation: at the appropriate time (e.g. at 6 months from licence commencement) licensees would be required to report to ComReg on the above obligations.

6.2 ComReg also noted that some applicants/licensees may have multi-year projects with deployments longer than 6 months. While pre-application discussions with ComReg on an appropriate licensing approach might resolve any 6 month timing issues (e.g. submitting applications in a phased manner), ComReg observed that there could also be exceptional cases. This would likely require sufficient evidence, including deployment plans, demonstrating intent/ability to use the spectrum (within a reasonable timeframe) and why an exception might be warranted.

6.3 This chapter sets out ComReg's draft Regulatory Impact Assessment ("RIA")

[101] To demonstrate that all the licensed spectrum is being efficiently used applications for large amounts of bandwidth or applications which have a large impact on the availability of spectrum (i.e. medium power applications) would likely need to deploy multiple user terminals

on the rollout and usage obligations to be attached to WBB LMP licences by outlining the relevant policy issues and assessing the various regulatory options to determine ComReg's preferred option, having regard to the impacts on stakeholders, competition and consumers.

6.4 ComReg has prepared this draft RIA having careful regard to the relevant information available, including the following:

- Interviews with stakeholders conducted by DotEcon and ComReg on the potential use cases for WBB LMP;
- The two DotEcon Reports (Document 25/46a which was published alongside the first consultation and ComReg Document 26/06a which is published alongside this response to consultation document);
- The two Plum Consulting Reports (Document 25/46b which was published alongside the first consultation and Document 26/06b which is published alongside this response to consultation document); and
- Submissions received to Consultation Document 25/46.

RIA Framework

6.5 In general terms, a RIA is an analysis of the likely effect of proposed new regulation or regulatory change and, indeed, of whether regulation is necessary at all. The RIA should help identify regulatory options and establish whether the proposed regulation is likely to have the desired impact, having considered relevant alternatives and the impacts on stakeholders. The RIA is a structured approach to the development of policy and analyses the impact of regulatory options. In conducting a RIA, the aim is to ensure that all proposed measures are appropriate, effective, proportionate and justified.

6.6 A RIA should be carried out as early as possible in the assessment of regulatory options, where appropriate and feasible. The consideration of the regulatory impact facilitates the discussion of options, and a RIA should therefore be integrated into the overall analysis. This is the approach which ComReg follows in this document and this RIA should be read in conjunction with the overall Consultation.

6.7 In conducting a RIA, ComReg has regard to the RIA Guidelines[102] , while recognising that regulation by way of issuing decisions, for example, imposing obligations or specifying requirements in addition to promulgating secondary legislation, may be different to regulation exclusively by way of enacting primary

[102] ComReg Document 07/56a, "Guidelines on ComReg's Approach to Regulatory Impact Assessment", published 10 August 2007, available at www.comreg.ie

or secondary legislation.

6.8 To ensure that a RIA is proportionate and does not become overly burdensome, a common-sense approach is taken towards a RIA. As decisions are likely to vary in terms of their impact, if after initial investigation, a decision appears to have relatively low impact ComReg may carry out a lighter RIA in respect of that decision. The draft RIA will be finalised in the final Decision arising from this Consultation, having considered responses to this Consultation and stakeholders' consideration of the draft RIA.

6.2 Structure of the RIA

6.9 As set out in ComReg's RIA Guidelines, ComReg's approach to the RIA is based on the following five steps:

- **Step 1:** Describe the policy issues and identify the objectives;
- **Step 2:** Identify and describe the regulatory options;
- **Step 3:** Determine the likely impacts on stakeholders;
- **Step 4:** Determine the likely impacts on competition; and
- **Step 5:** Assess the likely impacts and choose the best option.

6.10 In the following sections, ComReg identifies the relevant stakeholder groups, specific policy issues to be addressed and relevant objectives (i.e. Step 1 of the RIA process). This is followed by the identification of the policy issues that need to be addressed.

6.11 ComReg then considers these policy issues in accordance with the four remaining steps of ComReg's RIA process.

Identification of stakeholders and approach to Steps 3 and 4

6.12 The focus of Step 3 is to assess the likely impact of the proposed regulatory measures on stakeholders. Hence a necessary precursor is to identify such stakeholders. In this draft RIA, stakeholders fall into two main groups:

- Consumers; and
- Industry stakeholders.

6.13 The industry stakeholders comprise potential users of private 4G/5G networks in Ireland, such as industries and organisations requiring secure, high-performance wireless connectivity tailored to their specific operations. These are likely to span across the following sectors:

- Manufacturing
- Transport and logistics (ports, airports, warehouses)
- Energy and utilities
- Education and research
- Healthcare (hospitals and medical campuses)
- Agriculture
- Public safety and emergency services
- Smart cities and local authorities

6.14 The focus of Step 4 is to assess the impact on competition of the various regulatory options available to ComReg. In that regard, ComReg notes that it has various statutory functions, objectives and duties which are relevant to the issue of competition and these are primarily set out in Section 12 of the Act..

6.15 Of themselves, the RIA Guidelines and the Ministerial Policy Direction on Regulatory Impact Assessment[103] provide little guidance on how much weight should be given to the positions and views of each stakeholder group (Step 3), or the impact on competition (Step 4). Accordingly, ComReg has been guided by its primary statutory objectives which it is obliged to seek to achieve when exercising its functions. ComReg's statutory objectives in managing the radio frequency spectrum, as further outlined in Annex 1, include:

- promote competition[104];
- contribute to the development of the internal market[105];
- promote the interests of users within the Community[106]; and
- ensure the efficient management and effective use of the radio frequency spectrum in Ireland in accordance with a direction issued under Section 13 of the 2002 Act.

6.16 In addition, ComReg is guided by regulatory principles and obligations provided for under the European Union (Electronic Communications Code) Regulations 2022, S.I. No. 444 of 2022. Such principles and obligations are outlined further

[103] Ministerial Direction dated 21st February 2003
[104] Section 12 (1)(a)(i) of the Communications Regulation Act, 2002
[105] Section 12 (1)(a)(ii) of the Communications Regulation Act, 2002
[106] Section 12(1)(a)(iii) of the Communications Regulation Act, 2002

at Annex 1 and include:

- Regulation 4(5) (d) of S.I. No. 444 of 2022 which requires ComReg to promote efficient investment and innovation in new and enhanced infrastructure.
- Regulation 29(1) of S.I. No. 444 of 2022 permits ComReg to attach conditions to individual rights of use for radio spectrum in accordance with Regulation 9(1) in such a way as to ensure optimal and the most effective and efficient use of radio spectrum.
- Regulation 29(3) of S.I. No.444 of 2022 provides that such conditions attached to individual rights of use shall specify the applicable parameters, including any deadline for exercising the rights of use, the non-fulfilment of which would entitle the Regulator to withdraw the right of use or impose other measures.
- Regulation 29(4) of S.I. No.444 of 2022 sets out that ComReg shall, in a timely and transparent manner, consult and inform interested parties regarding conditions attached to individual rights of use before their imposition. The Regulator shall determine in advance and inform interested parties, in a transparent manner, of the criteria for the assessment of the fulfilment of those conditions.

6.17 In this document, ComReg has adopted the following structure in relation to Step 3 and Step 4; the impact on industry stakeholders is considered first, followed by the impact on competition, followed by the impact on consumers. This order does not reflect any assessment of the relative importance of these issues but rather reflects a logical progression. In particular, a measure which safeguards and promotes competition should, in general, impact positively on consumers. In that regard, the assessment of the impact on consumers draws substantially upon the assessment carried out in respect of the impact on competition.

6.3 Step 1: Identify the policy issues & the objectives

Policy Issues

6.18 Rollout and usage obligations can be important regulatory tools for ensuring that spectrum rights are used efficiently. ComReg has employed rollout and usage obligations previously, for example the MBSA2 licences and 3.6 GHz Band licences[107]. Plum's benchmarking work[108] also highlights that a usage

[107] See Section 8.4 Document 20/122 and Section 6.5 Document 16/57.
[108] See Appendix C of Document 25/46b

and rollout obligation for WBB LMP has been deployed elsewhere. For example:

- in the UK "*a licensee must commence regular transmissions within six months after the date on which their licence was issued*."[109] and
- in Norway, "*All allocated transmission points must be implemented in accordance with the licence within 12 months of the licence coming into force*."[110]

6.19 In Document 25/46, ComReg noted that a rollout and usage obligation is also likely to be important in the case of WBB LMP licences as there might be situations where rights of use are used inefficiently or hoarded to the detriment of competition by denying rights of use to more efficient users. ComReg also notes that spectrum hoarding may be more likely to occur within a Private 5G licensing framework given that they are typically site specific, often in denser urban or industrial areas where demand for connectivity is likely to be high and the cost of holding a licence is not a sufficient deterrent in itself. Therefore, the risk of spectrum hoarding is particularly of note in the assignment of WBB LMP rights of use.

6.20 ComReg observes that a rollout and usage obligation could ensure, for example, that one or more user terminals would need to be in active use and traffic would need to be transmitted on all the licensed spectrum. Applications for large amounts of bandwidth or applications which have a large impact on the availability of spectrum (i.e. medium power applications) would be required to demonstrate that all the licensed spectrum is being efficiently used.

6.21 In the context of this draft RIA, the policy issue to be addressed is to determine what rollout obligations (if any) are appropriate to attach to WBB LMP rights of use in the 3.8-4.2 GHz Band.

6.22 In considering this policy issue, there are a number of objectives which ComReg must balance. On the one hand, if operators granted licences do not roll out services in a timely manner, that would be detrimental to the effective management and use of the radio spectrum. This could justify the attachment of rollout obligations on those licences. In contrast, the imposition of overly onerous obligations could have negative consequences such as requiring unnecessary and therefore inefficient investment in infrastructure or even discouraging users with requirements for WBB LMP licences who would otherwise efficiently deploy services.

[109] Ofcom's Shared Access Licence Guidance Document, paragraph 2.34
[110] Nkom's "Regulation of local networks in 3.8-4.2 GHz", Section 5.

6.23 Accordingly, the policy issue for ComReg is to determine whether a rollout and usage obligation(s) would be appropriate and, if so, identify an appropriate obligation(s) which would ensure an efficient level of rollout without significantly discouraging the deployment of WBB LMP services in the 3.8-4.2 GHz Band.

Objectives

6.24 In considering the policy issue, ComReg aims to carry out its assessment in accordance with its statutory objectives (as outlined in Annex 1). In particular, Schedule 1 to the EECC Regulations (S.I 444 of 2022) provides that obligations to ensure the effective and efficient use of spectrum may be attached to spectrum rights of use. Such obligations can include the use of rollout or usage obligations, or both.

6.25 In addition, and as we have outlined, the focus of this draft RIA is to assess the potential impacts of the proposed measure(s) on stakeholders, competition and consumers. ComReg can then identify and implement the most appropriate and effective means to set a rollout and usage obligation (if any) for WBB LMP licences in the 3.8-4.2 GHz Band, while achieving its relevant statutory objectives under Section 12 of the 2002 Act of promoting competition by, among other things:

- Encouraging efficient use and ensuring effective management of radio frequencies;
- Promoting regulatory predictability by ensuring a consistent regulatory approach;
- Safeguarding competition to the benefit of consumers and promoting, where appropriate, infrastructure based competition;
- Contributing to the development of the internal market; and
- Promoting the interests of EU citizens.

6.26 ComReg is also mindful of the "connectivity" objectives associated with the Implementing Decision.

"*The 3 800-4 200 MHz frequency band can enable the deployment of terrestrial wireless broadband systems to provide* ***local-area network connectivity*** *for a variety of services and applications, on the basis of technology neutrality. The* ***wide range of local use cases*** *across different industrial and non-industrial environments, both indoors and outdoors, will benefit from harmonised*

technical conditions." Recital 1 – **Emphasis added)**[111]

6.27 Having identified the policy issues and objectives, ComReg now identifies the regulatory options to be assessed over the remainder of this draft RIA.

6.4Step 2: Identify and describe the regulatory options

6.28 In light of the above, ComReg considers that the following regulatory options are available.

6.29 **Option 1** would be the 'do nothing option' which would be to impose no rollout or usage obligation. This would mean that each potential licensee would have full flexibility to choose how extensive, or timely their rollout would be regardless of the amount of spectrum rights of use attached to a licence. An operator could choose to provide no services, only to provide services in high density areas, or choose to use some or all of the bandwidth assigned.

Identifying other policy options

6.30 The 3.8-4.2 GHz Band can enable the deployment of terrestrial WBB LMP systems to provide local-area network connectivity for a variety of services and applications, all on the basis of technology neutrality. The wide range of use cases across various settings, both indoor and outdoor, means that there is no uniform rollout and usage option that would accommodate all stakeholders because depending on the relevant project a shorter or longer rollout may be required. Therefore, any option considered below is composed of the following.

I. a Standard Rollout period that would apply to all licences following assignment of rights of use.

II. a Longer Rollout period up to three years which may be provided by ComReg, at its discretion, subject to sufficient evidence and justification.

III. any exceptional circumstances beyond the longer rollout period would be assessed by ComReg on a case-by-case basis.

6.31 Each option below considers a different Standard Rollout because the large majority of rollout and usage requirements should fall into this category. In relation to the Longer Rollout period, ComReg notes that respondents indicated that a two year rollout and usage period would be sufficient for most typical network deployments. However, ComReg notes that for more expansive deployments, such as those including larger outdoor areas like campuses or innovation centre, additional time may be necessary to address logistical challenges, site preparations and testing etc. It would be important that those

[111] Commission Implementing Decision (EU) 2025/2425, Recital 1

cases (even if rare) could be reasonably accommodated under the Longer Rollout period and not treated on an exceptional basis which would require more substantial evidence and primarily be reserved for major infrastructural projects or those of national/regional significance.

6.32 In that regard, ComReg is of the preliminary view that the Longer Rollout period should be three years. Again, it is important to note that a Longer Rollout period of three years, would allow ComReg to provide a period of up to three years where justified, noting that in most cases a short extension above the Standard Rollout period is all that would be required and provided. This also aligns with the 3 year rollout period for the 3.6 GHz rights of use where the time to procure, order, delivere and install the equipment would be similar for a private network.

6.33 In Document 25/46, ComReg proposed that the standard rollout and usage obligation would include a Base Station Rollout obligation such that licensees would be required to install, work and use one base station within 6 months of licence commencement. For each licence issued (low power or medium power) the licensee would also be required to put all of the spectrum licensed into use within 6 months and actively use one or more user terminals within this period.

6.34 ComReg also recognised that some applicants (in exceptional circumstances) may have a need for a rollout and usage obligation that would necessitate a longer rollout and usage obligation to the standard approach. In such cases, the applicant would need to provide ComReg with sufficient evidence to justify a Longer Rollout obligation. Upon granting of the licence, the licensee would then need to demonstrate compliance with the Longer Rollout and usage obligations agreed with ComReg.

6.35 Given that respondents in response to Document 25/46 have provided views of a potential 6-month rollout and usage requirement, **Option 2** for purpose of this draft RIA includes a standard 6-month rollout and usage obligation with up to 3 years allowed where sufficient justification is provided to ComReg.

Responses to consultation

6.36 Further, ComReg notes that respondents to Document 25/46 did not disagree with ComReg's proposed approach to include a rollout and usage obligation for WBB LMP licences. However, respondents were of the view that the timeframes for rollout and usage should be extended beyond 6 months (as provided under Option 2) to between 18 and 24 months, primarily on account of concerns around lead times to order and deploy equipment. ComReg notes that its rollout and usage proposal in Document 25/46 had considered the time required to procure equipment etc. However, to the extent that there would be projects whose rollout would extend beyond 6 months because of the time required for procurement, ComReg believes an additional three months would

address such concerns.

6.37 However, ComReg is of the view that any lengthening of the 6-month rollout and usage obligation proposed in Document 25/46 must be balanced against ComReg's spectrum management functions (e.g. the efficient use of the radio spectrum). As such ComReg is of the preliminary view that a rollout period of 9 months may be appropriate. ComReg also notes that this would align with rollout timelines imposed on licensees in other European countries. For example, WBB LMP licences in Sweden, the Netherlands, Germany and Belgium have rollout periods of between six months and one year.

6.38 Therefore, **Option 3 would** impose a standard nine-month rollout and usage obligation with up to 3 years allowed where sufficient justification is provided to ComReg.

6.39 Finally, ComReg notes that **Option 4** would be to make a 2 - 3 year period as the standard rollout period across all licensees. This would be in line with respondents' requests for a rollout period of 18 - 24 months.

Reporting obligation with rollout requirements

6.40 All options above would also include appropriate reporting obligations to ensure that the licensee is complying with the rollout obligation specified in its licence. The reporting obligations would be the same across all options that include a rollout and usage obligation. This would be in keeping with ComReg's general approach to ensuring licensees comply with the terms and conditions specified in their licence.

Conclusion on policy options

6.41 Given the above, ComReg considers that the four regulatory options available to it are:

- **Option 1 –** No rollout or usage obligation. This would mean that each licensee would have full flexibility to choose how extensive, or timely their rollout would be regardless of the amount of spectrum rights of use assigned.
- **Option 2 –** A 6 month rollout and usage obligation as standard with up to 3 years allowed where sufficient justification is provided to ComReg.
    - For each standard rollout rights of use issued (low power or medium power), the licensee would be required to install, work and use the spectrum rights of use on at least one base station and one terminal station within 6 months of it's commencement.

- Where up to 3 years has been provided by ComReg, the licensee would be required to install, work and use the spectrum rights of use on the base station(s) and terminal station(s) as set out in its rollout commitments within that period.

- **Option 3 -** A 9-month rollout and usage obligation as standard with up to 3 years allowed where sufficient justification is provided to ComReg.
  - For each standard rollout rights of use issued (low power or medium power), the licensee would be required to install, work and use the spectrum rights of use on least one base station and one terminal station within 9 months of it's commencement.
  - Where up to 3 years has been provided by ComReg, the licensee would be required to install, work and use the spectrum rights of use on at the base station(s) and terminal stations as set out in its rollout commitments within that period.

- **Option 4 –** A 2 - 3 year rollout and usage obligation as standard. For each licence issued (low power or medium power), the licensee would be required to install, work and use one base station within 3 years of licence commencement. Longer rollout periods would be considered on an exceptional basis only.

6.5Step 3: Impact on Stakeholders

6.42 This section provides information on the impacts on industry stakeholders arising from the regulatory options above. As set out above, the industry stakeholders comprise potential users of private 4G/5G networks in Ireland spanning a wide variety of sectors requiring secure, high-performance, wireless connectivity tailored to their specific operations. Stakeholders support or otherwise is likely to vary depending on their rollout requirements and therefore no single option would be supported by all stakeholders. Nonetheless, the assessment below considers the issues that appear likely to arise in considering each option.

Option 1

6.43 Under Option 1, each licensee would have full flexibility to choose when and how to rollout their networks. A licensee could choose to rollout entirely or only deploy part of their spectrum rights of use. However, Option 1 would make it more likely for spectrum hoarding to occur because there would be no obligation on a licensee to use spectrum rights efficiently or at all and ComReg would be unable to take compliance action to ensure the efficient use of the radio spectrum. Therefore, stakeholders are unlikely to prefer such an

approach because any spectrum *sterilised* due to inefficient use or hoarding could be in geographic areas (urban or industrial estates) where spectrum use would be required by such stakeholders.

6.44 Indeed, ComReg notes that no respondent to Document 25/46 advocated no rollout and usage obligation. Stakeholders are not opposed to a rollout and usage obligation, rather ComReg considers that a key consideration for stakeholders is the timeframe for complying with the rollout and usage obligation. Stakeholders preference for a rollout and usage obligation to prevent spectrum hoarding/inefficient use needs to be balanced against the desire to have flexibility in providing services to certain regions in line with their commercial strategy.

6.45 Therefore, ComReg is of the preliminary view that stakeholders are unlikely to prefer Option 1.

Option 2

6.46 Under Option 2, a six-month rollout and usage obligation would apply with up to 3 years available where sufficient justification is provided to ComReg. Respondents to Document 25/46 accepted the need for a rollout requirement but expressed concern over the six-month period because, in their view, it did not provide sufficient time for the procurement of network equipment. However, longer periods beyond the 6 month period could be accommodated under this Option by providing sufficient justification and proposals for its rollout to ComReg.

6.47 This approach would require licensees to provide additional details on its rollout plan in the form of a commitment to achieve the rollout and usage plan as envisaged. If approved, the proposed rollout plan would be included as a condition of the licence to be monitored by ComReg. Such a process would not be onerous and if licensees have genuine plans that would require a rollout and usage period longer than 6 months there should be little difficulty in justifying it.

6.48 Separately, it should be noted that this approach would have higher spectrum fees due to the Longer Rollout (see Chapter 7). However, one of the objectives in setting fees is that they are set at a level that would be unlikely to choke off demand and the higher fees would be significantly less than the opportunity costs of not having access to the spectrum[112] caused by potential hoarding or inefficient use.

6.49 Therefore, ComReg is of the preliminary view that stakeholders are likely to

[112] For example, absent the use of WBB LMP spectrum potential licensees may need to use mobile networks, narrowband PMR or licence exempt spectrum which may not provide sufficient assurances in terms of speed, latency reliability, security and control, depending on their requirements.

prefer Option 2 over Option 1 because it protects against spectrum hoarding/inefficient use and provides a six-month rollout period as standard which would be sufficient for most network deployments. Moreover, it provides the opportunity for a Longer Rollout period where required.

6.50 However, some stakeholders while preferring Option 2 to Option 1 would likely prefer other options that avoided the administrative overhead of engaging with ComReg and that also avoided the higher fees associated with a Longer Rollout.

Option 3

6.51 Option 3 would increase the length of time for a standard rollout by three months to nine months, with further justification to ComReg required for longer periods. Stakeholders are likely to prefer Option 3 over Option 2 because it avoids the need to provide additional justification to ComReg where a rollout period of up to nine months would be sufficient and also avoids the associated higher spectrum fees that would be needed for a nine month rollout and usage period under Option 2.

6.52 A standard nine-month period would also likely cover most rollout and usage requirements, noting that such a period is more closely aligned with the rollout obligations of licensees in other European countries.[113] A standard nine-month rollout would also likely resolve respondents issues around the need for the rollout period to provide more time to procure equipment before being able to rollout and use the spectrum rights of use. An additional three months for the standard rollout should be more than sufficient to procure the equipment needed for a private 5G deployment.

6.53 Therefore, ComReg is of the preliminary view that stakeholders are likely to prefer Option 3 over Options 1 and 2 because it provides a longer standard rollout period.

Option 4

6.54 Option 4 would provide a lengthy rollout and usage condition of 2 - 3 years. However, such a time period would again open up the possibility of inefficient use and hoarding because any obligation would apply over an extended period (i.e. more than a year). Therefore, some respondents would be unlikely to prefer Option 4, particularly those for whom the six and nine month rollout periods would be sufficient.

6.55 Notwithstanding, some respondents requested that the rollout period be adjusted to allow for longer rollout periods in the region of 18-24 months. These

[113] See Appendix C of Plum Report, Document 25/46b

stakeholders would likely prefer this option because it would provide them with control over when and how they roll out their networks and would avoid the need to engage with ComReg over longer periods.

6.56 Therefore, some stakeholders would prefer Option 3 over Option 4 while other would prefer Option 4 over Option 3.

6.6Step 4: Impact on competition and consumers

Impact on competition

6.57 There are different elements to competition that are relevant in determining the impacts of each of the options. There is a natural overlap between the aims of each of the options and an assessment of ComReg's compliance with some of its statutory functions, particularly that of promoting competition, in accordance with Section 12 of the 2002 Act. These include:

- Encouraging efficient use and ensuring the effective management of radio frequencies and numbering resources[114] ("Efficiency and Spectrum Management - Section 4.6");
- Ensuring that there is no restriction or distortion of competition in the electronic communications sector[115] ("Distortions to competition" – Section 4.7);
- Promoting efficient investment and innovation in new and enhanced infrastructures[116] ("Efficient Investment and Innovation" – Section 4.8); and
- Safeguarding competition to the benefit of consumers and promoting, where appropriate, infrastructure-based competition[117] ("Infrastructure based competition" – Section 4.9).

Option 1

6.58 Under Option 1, licensees would have a high degree of flexibility and could choose their own rollout and usage levels which could have a positive impact on competition through, among other things, increased infrastructure based competition. However, it would also provide the weakest safeguard that spectrum would be used efficiently. This Option would likely give rise to an increased risk of spectrum hoarding/inefficient use which in turn would create

[114] Section 12(2)(a) of the 2002 Act.
[115] Section 12(2)(a) of the 2002 Act.
[116] Regulation 4(5)(d) of S.I. No. 444 of 2022.
[117] Regulation 4(5) of S.I. No. 444 of 2022.

artificial scarcity for spectrum for WBB LMP services. For example, some users may use only a subset of the spectrum rights of use attached to their licence or not fully deploy services in the area(s) for which they have a licence to operate. Such an approach would be unlikely to ensure the efficient use and effective management of the radio spectrum.

6.59 In such instances, other users with genuine requirements for spectrum may not be able to deploy services using the spectrum that is required. This is particularly relevant for use cases that have an outdoor requirement where there is a higher likelihood of competing demand for the spectrum rights of use or for areas with a higher density of users (i.e. ports, urban areas, campuses or industrial estates). The inefficient use or hoarding of spectrum could preclude companies from access to an essential input in the provision of innovative connectivity services and/or preclude other providers from offering those same services. This would not encourage the effective use or promote efficient investment because it could create outcomes where spectrum goes unused, despite demand existing for that spectrum.

6.60 Therefore, ComReg is of the preliminary view that competition would not be best promoted under Option 1.

Option 2

6.61 Under Option 2, licensees would be required to rollout services within 6 months of a licence being granted. By setting a minimum rollout and usage obligation sufficiently high (i.e. 6 months), Option 2 should mitigate the risk of spectrum not being used, or used inefficiently because rollout and usage would need to occur within 6 months. As noted by DotEcon, a rollout period of 6 months "*would protect against inefficient assignment and use of spectrum that could arise if licences were granted without a clear immediate use for the spectrum, thereby preventing access to other potential users".*[118]

6.62 This Option would mean that licensees are assessed for rollout and usage compliance before the renewal of their licence which would then inform ComReg's decision to renew the licence. This would better support ComReg in ensuring the effective management of the radio spectrum because rights of use can be reassigned annually if licence conditions are not being met (and/or fees not paid). It would also ensure that the spectrum for WBB LMP is being used efficiently by imposing a timely yet reasonable rollout and usage obligation, lowering the risk that users with a genuine need would be restricted or denied access to spectrum on account of other users not using spectrum efficiently.

6.63 However, this protection needs to be balanced against the risk that the rollout

[118] DotEcon Report p.8, Document 26/06a.

period is overly restrictive such that providers do not have sufficient time to rollout a network and put it into use (including having sufficient time to procure of network equipment). If the rollout and usage period is not sufficiently long, it could deter potential licensees from utilising the spectrum altogether and switch to less efficient approach using alternative spectrum or networks. Such an outcome would not promote efficient investment and innovation in new and enhanced infrastructures.

6.64 ComReg is of the preliminary view that such an outcome is unlikely to arise under this Option because six months is already an appropriate period and a Longer Rollout could be accommodated once sufficient justification is provided to ComReg. As previously noted, this would not be an onerous process and there is no reason why the act of providing additional justification to ComReg would create any concerns for competition. On the contrary, additional information and justification for a Longer Rollout would better allow ComReg to better manage the radio spectrum as required under Section 12 of the 2002 Act.

6.65 ComReg also notes that that Longer Rollout period would be accompanied by higher fees to reflect the additional administrative cost that would fall on ComReg and to encourage potential licensees to use the standard rollout obligation. In that regard, ComReg again notes that one of the objectives of setting these fees is that they should not choke off demand, therefore there is little reason to be concerned that such fees under this Option would restrict or distort competition. Moreover, ComReg notes that these fees would be pro-competitive because they create incentives for licensees to complete their rollout and usage in a timely fashion and use the standard rollout obligation where appropriate.

6.66 Therefore, ComReg is of the preliminary view that competition would be better promoted under Option 2 compared to Option 1.

Option 3

6.67 Option 3 has the same impacts on competition as Option 2 except the impact of the additional 3 months needs to be considered. In assessing the appropriate balance between preventing spectrum hoarding and/or inefficient use on the one hand and providing licensee with sufficient time to complete their rollout on the other, an additional three months is unlikely to materially increase the risk of hoarding. For hoarding to be successful it typically requires spectrum to be hoarded for an extended period. This prolonged hoarding forces alternative (and potentially more efficient users) to either delay service deployment or resort to less efficient technologies and other spectrum bands to deliver the services they require, as they would otherwise have to wait for preferred spectrum to become available. In that regard, an additional three months,

thereby bringing rollout to nine months, seems unlikely to significantly increase the risk of spectrum hoarding. Rather it would afford licensees with additional time to address deployment challenges, including procurement delays and supply chain issues, thereby supporting a more efficient and efficient rollout.

6.68 As noted by DotEcon, "*For standard applications, a rollout period in the region of nine months would seem to balance the concerns raised by respondents about the longer time horizons for network deployment, whilst also protecting against spectrum sitting unused for significant periods of time and denying access to other potential operators who could make more immediate use of a valuable resource*."[119] This would also promote more efficient investment decisions and innovation in new and enhanced infrastructures because such an approach is more in line with the approach in other jurisdictions.

6.69 In that regard, Option 3 would likely strike a better balance between encouraging the efficient use of spectrum, and also ensuring that ComReg is best placed to effectively manage the spectrum for WBB-LMP. A 9 month rollout timeframe would provide licensees with more time to rollout their service compared to Option 2, while also allowing ComReg to take any action arising from non-compliance prior to the annual renewal of the licence. This would reduce the risk of spectrum being inefficiently used, thereby reducing the risk of other users being inefficiently denied access to spectrum.

6.70 Therefore, ComReg is of the preliminary view that competition would be better promoted under Option 3 compared to Option 1 and Option 2.

Option 4

6.71 Option 4 would provide the extended rollout of period of 2 -3 years as standard. This would ensure that all projects, regardless of their size or scope, would be able to rollout at any time within a three year period. While applying a 2 - 3 year rollout and usage period as standard would provide flexibility to accommodate all projects subject to spectrum availability (including the more extensive rollouts), ComReg is of the preliminary view that the majority of WBB LMP projects should be completed within a 6 - 9 month time period given experience in other jurisdictions. In that regard, Option 3 would impose a disproportionally relaxed obligation on the more typical deployments, resulting in unnecessarily slow rollouts for a proportion of the typical cases, undermining the overall objective of timely network deployment and effective spectrum management.

6.72 This would also increase the risk of spectrum hoarding because a longer period up to three year would increase the effectiveness of such strategies. This does not mean that more complex sites or multi-location deployments do not need a

[119] DotEcon Report p.8, Document 26/06a.

Longer Rollout period. A Longer Rollout for these projects can be reasonably accommodated by providing sufficient justification to ComReg under Options 2 and 3. However, ComReg would not be ensuring the effective management and use of the radio spectrum by having an extended rollout requirement as standard across all projects because this would not provide the more typical projects with the correct incentives to rollout and use spectrum rights of use as early and as efficiently as possible.

6.73 Option 4 would also mean that ComReg would only be determining compliance with the obligation potentially up to three years after rights of use have been assigned. This option would mean that ComReg would only be able to observe compliance with the rollout obligation prior to the second renewal of the licence. Compared to Option 2, this would mean that any action arising from non-compliance with the rollout obligation would only be taken in the second year of a licence. While ComReg recognises that there may be some use cases that have an evidenced need for a Longer Rollout window, ComReg is of the preliminary view that such instances would need to be appropriatly justified. Provided an applicant can provide sufficient evidence to justify a Longer Rollout, such a use case could be facilitated with a Longer Rollout.

Impact on consumers

6.74 ComReg notes that consumers are not direct users of WBB LMP systems. For example, according to the European 5G Observatory[120] "*Private networks are best defined as those networks that are not typically utilised by consumers (for mobile voice and data services) but use network elements and resources to provide dedicated secure services to private enterprises such as factories, plants, large campuses, ports and airports*"

6.75 It is therefore appropriate to consider the impacts on consumers in the context of ensuring that spectrum rights of use are efficiently used to facilitate the effective deployment of WBB LMP use cases used by industry stakeholders, which in turn provide goods and services that consumers are likely to value. In that sense, ComReg considers that the primary consumer impacts to be considered are how the policy options impact inputs to downstream services which are valued by consumers.

6.76 The efficient assignment of WBB LMP licences are an important issue for consumers, as it will affect the choice, price, and quality of a range of services made available to consumers. For example:

- Efficient assignment and use enables more widespread adoption of private 5G which boosts industrial innovation and productivity in

[120] See p.56 of the European 5G Observatory Report 2025. Available at 5G Observatory report 2025 | Shaping Europe's digital future

manufacturing, logistics and industry by providing secure, reliable, low latency communications for automation, robotics and real time monitoring promoting more efficient supply chains that benefits consumers in the provision of other goods and services..

- Private 5G has the potential to offload traffic from public networks that would likely be required absent the available spectrum, reducing congestion in dense areas like cities, airports, university campuses and innovation centres.
- Private 5G could be used to improve and integrate important public services such as traffic management, transport and healthcare.
- Consumers are also likely to benefit from the increased competition between traditional telecom operators and third-party providers which would not be possible absent the efficient use of the radio spectrum

6.77 Further, it can be generally assumed that what is good for competition, and what promotes investment in infrastructure, is, good for consumers. This is because increased competition between operators brings benefits to their customers in terms of price, choice and quality of services. In that regard, options that are good for competition are likely to be good for consumers. With that in mind, ComReg reminds the reader that Option 3 is preferred in terms of the likely impact on competition and the efficient use of the radios spectrum.

6.78 Therefore, ComReg is of the preliminary view that consumers are likely to prefer Option 3.

6.7ComReg's preferred Option

6.79 This draft RIA considers a number of regulatory measures available to ComReg within the context of the analytical framework set out in ComReg's RIA Guidelines (i.e., impact on industry stakeholders, impact on competition and impact on consumers).

6.80 In light of the above, ComReg is of the preliminary view that Option 3 (a 9 month rollout and usage obligation as standard with up to 3 years allowed where sufficient justification is provided to ComReg) is preferred in terms of the impact on stakeholders, competition and consumers.

Chapter 7

7 Setting the Fees for WBB-LMP

7.1 Introduction

7.1 Regulation 24 of S.I. No. 444 of 2022 permits ComReg to impose fees for rights of use that reflect the need to ensure the optimal use of the radio frequency spectrum. In addition, ComReg is required to ensure that any such fees are objectively justified, transparent, non-discriminatory, and proportionate in relation to their intended purpose, and consider the objectives of ComReg as set out in Section 12 of the 2002 Act and the general objectives of the Directive and S.I. No. 444 of 2022.

7.2 In Document 25/46, ComReg consulted on the high level principles that would apply to fees for WBB-LMP. This Chapter considers responses on fees to that consultation and provides ComReg's proposed fee approach. The remainder of this chapter is structured as follows:

- Section 7.1.2 provides a summary of ComReg's proposal in Document 25/46.
- Section 7.1.3 provides a summary of respondents views.
- Section 7.1.4 provides a summary of DotEcon's views.
- Section 7.1.4 provides ComReg's assessment and proposed methodology.

7.1.2 Summary of ComReg's proposal in Document 25/46

7.3 ComReg agreed with DotEcon that the optimal use of the radio spectrum in the case of WBB LMP can be best achieved through consideration of the following five principles.

- Principle 1: Administrative cost recovery: Fees collected from the licensing scheme should cover ComReg's associated costs.
- Principle 2: Incentives for efficient use: The framework should encourage the efficient assignment and use of 3.8-4.2 GHz Band and ensure prospective licensees seek only sufficient spectrum to operate.
- Principle 3: Avoiding barriers to take-up: The fee structure should not discourage take-up.

- Principle 4: Transparency and consistency: Clarity and certainty of fees is essential in attracting investment in emerging technologies that require long-term investments.

- Principle 5: Practicality: The fee structure must be feasible for ComReg to implement and maintain

7.4 Readers are referred to Document 25/46 for detailed reasoning in respect of same.

7.1.3 Summary of respondents' views to Document 25/46

7.5 Four respondents submitted comments related to the proposed WBB LMP fees (Analog/Druid, EUWENA and TII).

7.6 Analog/Druid appreciate and agree with the principles around fee setting set out by ComReg in Section 6.10.2. They submit that ComReg should publish a fee table based on the principles as set out by ComReg. In their view, this would give CFOs immediate cost visibility. Analog/Druid also cite the UK proposal of £80 per 10 MHz as a benchmark for where Irish fees should be set.

7.7 EUWENA contend that WBB LMP fees should be based on administrative costs recovery only and that the flat tariffs should be published upfront. EUWENA also suggested that ComReg considers giving a rural discount. Further, it submitted the WBB LMP fees should align with other European regimes but did not cite any by way of reference.

7.8 TII submitted that, in its view, Document 25/46 lacks clarity regarding the licence fees.

7.1.4 Summary of DotEcon's views

7.9 DotEcon recommends that fees should be set to at least recover ComReg's administrative costs but should also provide incentives for users to apply for only what they need.

7.10 DotEcon recommends a fee structure with a fixed component plus an amount per low power area or medium power base station that reflects the power used, bandwidth (medium power only), and rollout terms.

7.1.5 ComReg's assessment and view

7.11 ComReg's assessment of fees is set out as follows.

- First, ComReg outlines its approach to recovering the administrative costs of the new WBB LMP licensing framework.

- Second, ComReg assesses whether spectrum scarcity should be considered in setting fees based on administrative cost recovery.
- Third, ComReg sets out its proposed fee structure and associated parameter values.
- Fourth, ComReg sets out its proposal for fees for licences that require a longer rollout period
- Finally, ComReg assesses the responses to Document 25/46 based on ComReg's proposals

Administrative costs

7.12 The first principle in setting fees for WBB LMP is that ComReg should set licence fees on the basis of administrative cost recovery. This approach allows it to recover the administrative costs of putting a WBB LMP licensing regime in place. ComReg's administrative costs for WBB LMP encompass the following elements:

- the fixed upfront costs of establishing and running the licensing framework including the supporting infrastructure and systems such as licensing, monitoring and complaints management tools; and,
- incremental costs of processing applications, which will likely vary depending on the number of applications but primarily involve staff costs of processing applications, support and maintenance, compliance, finance and HR etc.

7.13 Broadly speaking there are two approaches ComReg could take to recovering the costs associated with the WBB LMP licensing framework. These are:

- **Approach 1**: To recover administrative costs that are incurred by ComReg each year.
- **Approach 2:** To recover administrative costs over the long run (e.g. 20 - 25 year period).

7.14 In relation to Approach I, the administrative costs are likely to vary over time depending on the volume of applications that ComReg processes in a given year. In simple terms, the more licensees, the lower the resulting fees because more of ComReg's upfront one-off costs can be spread across a wider base of licensees. Under Approach 1, ComReg would need to recover all of its administrative costs for each year. However, this would also mean that the fees needed to recover those administrative costs would also change (and not in a predictable way).

7.15 Furthermore, because this is a new licensing framework, the one-off costs are

incurred at the outset of the framework and the annual contribution to those costs would need to be recovered by a potentially small number of WBB LMP licensees that require rights of use at the commencement of the licensing framework. This approach would result in higher fees for those licensees in the early years of the framework but would likely reduce over time as more applications are received and the fixed costs are spread over a higher number of licensees.

7.16 In relation to Approach II, ComReg would aim to recover the administrative costs over the longer term (e.g. 20 - 25 years). This would involve ComReg anticipating what the likely average number of licensees would be over the long term and applying its administrative costs across this average. This would allow fees to be set at a reasonable and consistent level throughout the duration of the licensing framework. This would likely result in the under-recovery of annual costs in the short-term, but an over recovery in later years when the volume of applications increase but the administrative costs would be recovered across the long run average.

7.17 ComReg is of the preliminary view that recovering costs over the long run is the approach best in line with its five principles.

7.18 Recovering administrative costs on an annual basis would mean that a potentially small number of licensees would need to cover the upfront one-off costs of a new licensing system. This results in a greater risk that fees could be set too high at the outset as a small number of licensees would need to meet a comparatively larger number of upfront one-off costs but the benefits of lower fees in the future would never be realised. This would not be in line with Principle 3 because the higher fees could discourage and create barriers to efficient demand.

7.19 As fees would change annually in line with ComReg's costs there is unlikely to be little certainty as to what the spectrum fees would be in a given year, thereby impairing long term planning of investments. This would not be in line with Principle 4 because there would be no long-term transparency over what the fees would be over an investment cycle and there would be no consistency as fees would likely change each year.

7.20 Alternatively, Approach 2 satisfies these same principles because administrative costs are recovered over the long run keeping fees balanced, consistent and predictable

Spectrum scarcity

7.21 ComReg is of the preliminary view that administrative cost recovery is the appropriate approach for determining WBB LMP fees. However, such an approach does not necessarily mean that each licensee simply pays the cost of

administering the licence. Where scarcity issues could arise in the future, appropriate incentives to encourage the efficient use of the radio spectrum are appropriate (even within an administrative cost approach). In the context of WBB LMP, spectrum scarcity is determined by the likelihood that harmful interference would be created by licensing WBB LMP to a particular user and impacting on the ability of other operators to use the same or similar frequencies.

7.22 Therefore, while administrative cost recovery is an appropriate method for setting fees, it should, where appropriate aim to provide incentives for licensees to use spectrum in an efficient way. In such cases opportunity cost principles may need to be reflected in licence fees to reduce the interference and sterilisation possibilities. This approach to determining fees is consistent with ComReg's approach in similar matters when determining fees for both Fixed Link and Satellite Earth stations.

7.23 DotEcon notes that there is potential for WBB LMP use to expand to the point that there is localised conflicting demand across users and therefore recommends that the fees follow opportunity-cost principles (i.e. to reflect the impact that assigning a particular licence might have on the options for other potential users of the spectrum). ComReg agrees with DotEcon that while there are unlikely to be any immediate threats of spectrum scarcity in the short run, such issues may arise in the future particularly in areas where users are likely to cluster such as urban areas or in industrial estates and innovation campuses across the state.

7.24 ComReg further concurs with DotEcon that the main factors that could be used to proxy such an approach are bandwidth and power.

Bandwidth

7.25 In relation to bandwidth, a licensee's fee for WBB LMP would depend on the bandwidth associated with its licence. The use of bandwidth as a factor simply means that the more bandwidth that is used the higher the fee.

Power

7.26 In relation to power, the area over which use of the licensed spectrum is sterilised for other users is directly proportional to the power level. In that regard, there are a range of power levels that could be used by licensees. The impact of these power requirements on other licensees/potential licensees also varies significantly.

7.27 For low power licences, the rate of sterilisation is likely to be very small, given the separation distance estimates provided by Plum. As noted by DotEcon, potential interference issues would be highly localised leading to limited scope for scarcity (i.e. even if a low power user was assigned a large bandwidth, the

likelihood of that prohibiting use of the spectrum by any other user would be small). In that regard, ComReg agrees with DotEcon that there is no particular need for stronger incentive effects from low power licence fees. Potentially higher fees for higher power usage within the low power band would provide little efficiency benefits but would potentially make fees for such use unduly restrictive.

7.28 However, as recorded by DotEcon where medium power licences (31 – 44 dBm) are required, the scope for sterilising spectrum across geographic areas extends much further and the scope for alternative and neighbouring users to be impacted is significantly greater. In such cases there is a clear need for fees to appropriately reflect the impact that power usage would have on other users and encourage potential licensees to appropriately consider whether a lower power (e.g. whether a low power usage or a lower medium power usage) would satisfy their requirements. Therefore, ComReg agrees with DotEcon's recommendation that fees should consider the impact of medium power on fees. The impact of power on fees is discussed below.

Proposed fee structure

7.29 DotEcon recommends a formula based approach that would include a fixed component plus an amount per low power area or medium power base station that reflects the power used and the bandwidth (medium power only) as described above.

7.30 ComReg agrees with the use of a formula based approach and is similar in approach to recent reviews of the Fixed Links and Satellite Earth Stations licensing frameworks which have performed well post implementation. Like those licensing frameworks this approach offers a practical implementation, licensees must simply know their requirements or range of requirements and the associated fee would be calculated automatically on that basis. ComReg also notes that an Assessment Tool would be made available to allow licensees to more easily assess their requirements.

7.31 ComReg also concurs with DotEcon that the fees should include a fixed element in order to appropriately cover ComReg's costs of running the licensing framework as well as a variable component to cover the amount of low power areas and/or the number of medium power base stations included on the licence, to address the incremental cost of processing and administering each element. Such an approach is also consistent with keeping fees balanced and recovering administrative costs over the long run.

7.32 Based on the considerations set out above, the fee structure is set out in Table 8 below.

Table 8 Proposed Fee structure.

The proposed fee structure is composed of the following.

A fixed component δ ; plus

- τ which is the sum of fees associated with all low power areas included on the licence (with a flat rate charged per area); plus
- $\sum_{i=1}^{m}(\tau + \mu \cdot b_i \cdot p_i)$ which is the sum of fees associated with all medium power base stations included on the licences, each of which has:
    - a fixed component τ to ensure the price is at least the price of a low power area; and
    - a variable component that increases in bandwidth b_i and power p_i.
    - a constant μ which controls the general level of the variable component of the fee for each medium power base station (constant)

The proposed fee, F, for a given licence is given by:

$$F = \delta + \tau n + \sum_{i=1}^{m}(\tau + \mu \cdot b_i \cdot p_i)$$

δ is the fixed component of the licence fee (constant)

τ is the fixed fee per low power area or medium power base station (constant)

n is the number of low power areas included on the licence (variable)

m is the number of medium power base stations included on the licence (variable)

μ controls the general level of the variable component of the fee for each medium power base station (constant)

b_i is the bandwidth (in MHz) licensed for base station i (variable)

$p_i$is a measure of the power level used at base station i (variable)

Parameter values

δ value (fixed component)

7.33 The value for δ is set at €400, and represents a reasonable share of the staff and fixed costs of running the licensing framework over the long run (e.g. licensing application, monitoring network and complaints management tool) This fixed component applies to all licence types and would apply once where there are multiple low or medium power needs. (i.e. it would apply to each licensee regardless of whether it includes low or medium power base stations).

τ value (fixed low power)

7.34 τ is the fixed fee per low power area and is estimated to be approximately €100. This is effectively the cost of administering each incremental low power area a licensee may require above the fixed component. It is primarily staff costs of administering each incremental licence. For example, if a licensee only requires one low power area the fee would be €500 (€400 + €100) if the requirement increased to two low power areas the fees would be €600 (€400 + €100+ €100).

$p_i$value (power)

7.35 DotEcon advises that applying a linear relationship between power and price is challenging due to the margins for error around measuring power emitted by a base station. Therefore, DotEcon recommends splitting the range of power allowed under a medium power licence into multiple 'power bands' and varies the value of p across those bands. These are set out in Table 9.

7.36 ComReg agrees with this approach for the reasons outlined by DotEcon but also because it is less restrictive than a linear approach whereby any increase in power would require a fee adjustment. Rather this approach provides flexibility for licensees to tailor their needs within a specific power band. Furthermore, this approach does not compromise efforts to avoid sterilisation caused by excessive power; fees would still increase across each of the bands, with the higher medium band facing a higher proportionate increase.

Table 9 Proposed medium power bands

Medium Power band	BW ≤ 20 MHz		BW > 20 MHz	
	Range	**Mid-point**	**Range**	**Mid-point**
Low Medium	24 – 31 dBm	27.5 dBm	18 – 25 dBm	21.5 dBm
Mid Medium	31 – 38	34.5 dBm	25 – 32	28.5 dBm

	dBm		dBm	
High Medium	38 – 44 dBm	41 dBm	32 – 38 dBm	35 dBm

7.37 The value of p would therefore take one of three values, one for each of the power bands set out above. DotEcon advise setting the p values as follows.

- $p = 1$ for the low medium power band
- $p = 5$ for the middle medium power band; and
- $p = 23$ for the high medium power band

7.38 These are the ratios of excess power above the midpoint of the low power range (12 dBm, or 15.85 mW). For example, there is approximately 7 dBm between the mid-points of the low and middle bands, and 6.5 dBm between the mid-points of the middle and high bands. The corresponding excess power levels are in a roughly 1:5:22 ratio.[121]

7.39 ComReg agrees with this approach because it properly reflects the impact associated with higher medium power usage. The large increase in fee arising from $p = 23$ is reflective of the fact that stations using those power levels are likely to sterilise the spectrum over a much larger range than those at lower power (see also Section 2.2 of the Plum Report Document 25/46b). As noted by DotEcon, for efficient spectrum management, it is important that users are incentivised to operate with networks that minimise the potential impact on others wherever possible.

μ value

7.40 μ controls the overall level of the fee for each medium power base station and determines the intensity of the incentives built into the fee structure. Ideally the value of μ would be set to ensure the fees paid by licensees reflect the opportunity cost of the licence assignment. However, this is not possible given the significant uncertainty and lack of information about the potential users/uses of the spectrum.

7.41 DotEcon recommends that μ is set at 5 based the spectrum costs associated with deployment of a new medium power base station[122]. DotEcon proposes that a reasonable approach would be for the spectrum fees associated with a

[121] The lower mid-point of 27.5 dBm corresponds to 562 mW, the middle mid-point of 34.5 dBm corresponds to 2,818 mW and the higher mid-point of 41 dBm corresponds to 12,598 mW. This results in a ratio of 1:5:22.

[122] See Section 7.4.4. of the DotEcon Report 26/06a

medium power base station in the middle of the power range with 80 MHz of spectrum to make up 50% of the total annual cost of the base station.

b bandwidth

7.42 DotEcon notes that the relationships between bandwidth (in MHz) licensed (medium power base station) and the corresponding opportunity cost appears to be fairly simple; the greater the bandwidth included in the licence, the less there is available to others. ComReg agrees with this principle which is consistent with its approach for formula based approaches for Fixed Links and Satellite. Therefore, it is appropriate to set the variable fee for a medium power base station directly proportional to the bandwidth licensed (the overall incentive level of the fee is controlled by μ).

Indicative fees

7.43 Given the above the indicative fees would be as follows.

- The fee for a low power area is €500 and €100 for each incremental low power areas.
- The fee for a medium power base station is outlined below and would vary depending on the power and bandwidth requirements. The incremental fees for additional base stations can be calculated by subtracting the fixed fee (i.e. €400) from the numbers below.

Table 10 Indicative medium power fees

Bandwidth	Low power band	Middle power band	High power band
10	€550	€750	€1,650
20	€600	€1,000	€2,800
30	€650	€1,250	€3,950
40	€700	€1,500	€5,100
50	€750	€1,750	€6,250
60	€800	€2,000	€7,400
70	€850	€2,250	€8,550
80	€900	€2,500	€9,700
90	€950	€2,750	€10,850

100	€1,000	€3,000	€12,000
110	€1,050	€3,250	€13,150
120	€1,100	€3,500	€14,300
130	€1,150	€3,750	€15,450
140	€1,200	€4,000	€16,600
150	€1,250	€4,250	€17,750

Longer rollout fees

7.44 DotEcon proposed setting the fee for a longer rollout at three times the standard rate as described above.

7.45 ComReg agrees with this approach because it is consistent with its views that the fees framework should create incentives for users to apply for longer rollout only if absolutely necessary.

7.46 Furthermore, this approach reflects the likely additional costs to ComReg from a more complicated application assessment. In such circumstances, ComReg would need to review the proposed rollout plan and corresponding justification, possibly requiring more detailed technical analysis and ongoing rollout monitoring.

CPI

7.47 All fees would be adjusted annually using the Consumer Price Index (CPI), with a view to ensuring that the value of these fees remains constant in real terms over the term of the licence.

8 Draft Decision Instrument Narrowband PMR

This chapter sets out ComReg's draft decision document based on the views expressed by ComReg in the preceding chapters and their supporting annexes.

1.1 DEFINITIONS AND INTERPRETATIONS

1. In this draft Decision, save where the context otherwise admits or requires:

"**Communications Regulation Act 2002**" means the Communications Regulation Act, 2002, (No. 20 of 2002), as amended;

"**ComReg**" means the Commission for Communications Regulation, established under section 6 of the Communications Regulation Act 2002;

"**EECC Regulations**" means the European Union (Electronic Communications Code) Regulations 2022, S.I. No. 444 of 2022;

"**Electronic Communications Network**" and "**Electronic Communications Service**" have the meanings assigned to them in the EECC Regulations;

"**Minister**" means the Minister of Environment, Climate and Communications;

"**Licence**" means a licence granted in accordance with section 5 of the Wireless Telegraphy Act 1926 in accordance with and subject to the matters prescribed in these Regulations to keep, have possession of, install, maintain, work and use Apparatus in a specified place in the State granted to the licensee;

"**Licence Fee**" means the relevant fee as set out in Schedule 2 which applies to a Licence as set out in draft form in Schedule 4 to the Private Mobile Radio Licence Regulations;

"**Private Mobile Radio** licence" means a non-exclusive Licence in the form set out in Schedule 1 granted in accordance with section 5 of the Act of 1926 in accordance with and subject to the matters prescribed in these Regulations to keep, have possession of, install, maintain, work and use Apparatus in a specified place in the State, in accordance with and subject to the terms and conditions set out therein and the matters prescribed in the Private Mobile Radio Licence Regulations.

"**Private Mobile Radio Spectrum Lease Licence**" means a non-exclusive Licence in the form set out in Schedule 3 granted under section 5 of the Act of 1926 to keep and have possession of Apparatus in a specified place in the State, in accordance with and subject to the terms and conditions set out therein and the matters prescribed in these Regulations.

"**Programme Marking and Special Events Licence**" means a non-exclusive Licence in the form set out in Schedule 2 granted on a Non-Interference and Non-Protected Basis in accordance with section 5 of the Act of 1926 in accordance with and subject to the matters prescribed in these Regulations to keep, have possession of, install, maintain, work and use Apparatus in a specified place in the State, in accordance with and subject to the terms and conditions set out therein and the matters prescribed in the Private Mobile Radio Licence Regulations;

"**Wireless Telegraphy Act 1926**" means the Wireless Telegraphy Act, 1926 (No. 45 of 1926), as amended.

1.2 DECISION-MAKING CONSIDERATIONS

2. In arriving at its decisions in this document, ComReg has had regard to:

I. the contents of, and the materials and reasoning referred to in, as well as the materials provided by respondents in connection with, the below-listed ComReg documents (insofar as they are relevant to the present Decision):

a) ComReg Document 25/46; and

b) ComReg Document 26/06 [document to which this draft Decision including draft Regulations are attached].

II. The consultants' reports commissioned, and the advice obtained by ComReg, in relation to the subject matter of the documents and materials listed above

III. the powers, functions, objectives and duties of ComReg, including, without limitation those under and by virtue of:

a) the Communications Regulation Act 2002, and, in particular, sections 10, 12 and 13 thereof;

b) Regulations 4, 5, 9 ,14, 15, 16, 17, 20, 24, and 27, 28, 30, 31, 34, 36, 99(1)(c), 105 and 110of the EECC Regulations;

c) Sections 5 and 6 of the Wireless Telegraphy Act 1926; and

d) the applicable Policy Directions made by the Minister under section 13 of the Communications Regulation Act 2002.

IV. and, noting that it has:

a) given all interested parties the opportunity to express their views and make their submissions in accordance with Regulation 36 of the EECC Regulations and Regulation 101 of the EECC Regulations;

b) considered such representations; and

c) where necessary, evaluated the matters to be decided, in accordance with ComReg's RIA Guidelines (ComReg Document 07/56a) and the RIA Guidelines issued by the Department of An Taoiseach in June, 2009,

1.3 DECISIONS

3. Having had regard to the above considerations, ComReg has decided:

I. subject to obtaining the consent of the Minister to the making by it of the Private Mobile Radio Licence Regulations, to make those regulations under section 6 of the Wireless Telegraphy Act 1926, prescribing relevant matters in relation to Private Mobile Radio Licences, Programme Marking and Special Events Licences, or Private Mobile Radio Spectrum Lease Licences. , including prescribing the form of the Licence concerned, its duration, fees, and the conditions and restrictions subject to which it is granted.

II. under section 5 of the Wireless Telegraphy Act 1926, and upon application being properly made to it and upon payment of relevant Licence Fee, to grant a Private Mobile Radio Licence, Programme Marking and Special Events Licence, or Private Mobile Radio Spectrum Lease Licence, under section 5 of the Wireless Telegraphy Act 1926 to a relevant applicant subject to the conditions and restrictions (including conditions as to suspension and withdrawal), prescribed in the Private Mobile Radio Licence Regulations as currently set out in Annex 2 of Document 25/06 [this document].

Duration of Licence

III. that a PMR Licence shall, unless it has been revoked, withdrawn or surrendered, remain in force from the date of grant for a period of one year unless renewed.

IV. that a PMSE Licence shall, unless it has been revoked, withdrawn or surrendered, remain in force from the date of grant for a period of one year and shall not be renewed.

Licence Fees

V. that the PMR and PMSE Licence Fees shall be calculated in accordance with Schedule 4 as set out in the Private Mobile Radio Licence Regulations.

VI. that if a PMR Licence is surrendered by the Licensee, the Licensee may be entitled to a refund of the relevant Licence Fee on a pro rata monthly basis.

VII. that if a PMR or PMSE Licence is suspended or withdrawn due to a finding by ComReg of non-compliance with any relevant licence conditions, the Licensee shall not be entitled to be repaid any part of the Licence Fee paid by the Licensee, but shall still be liable to pay any sums, including interest, that are outstanding.

VIII. that if the amount of radio frequency spectrum specified in a PMR Licence is reduced, the Licensee may be entitled to a refund of the relevant Licence Fee already paid in the relevant year on a pro rata monthly basis having regard to the nature of the amendment.

1.4 EFFECTIVE DATE

This Decision Instrument shall come into force on the day of its making.

1.5 MAINTENANCE OF OBLIGATIONS

If any section or clause contained in this Decision Instrument is found to be invalid or prohibited by the Constitution, by any other law or judged by a court to be unlawful, void or unenforceable, that section or clause shall, to the extent required, be severed from this Decision Instrument and rendered ineffective as far as possible without modifying the remaining section(s) or clause(s) of this Decision Instrument and shall not in any way affect the validity or enforcement of this Decision Instrument.

1.6 STATUTORY POWERS NOT AFFECTED

Nothing in this document shall operate to limit ComReg in the exercise of its discretions or powers, or the performance of its functions or duties, or the attainment of objectives under any laws applicable to ComReg from time to time.

GARRETT BLANEY

COMMISSIONER

THE COMMISSION FOR COMMUNICATIONS REGULATION

The X day of X 2026

Chapter 8

9 Draft Decision Instrument WBB LMP

This chapter sets out ComReg's draft decision document based on the views expressed by ComReg in the preceding chapters and their supporting annexes.

1.1 DEFINITIONS AND INTERPRETATIONS

1. In this Decision, save where the context otherwise admits or requires:

"**3.8- 4.2 GHz Band**" means **spectrum in the range 3800 – 4200 MHz.**

"3.8- 4.2 GHz Band EC Decision" means Decision EU) 2025/2425

"**Communications Regulation Act 2002**" means the Communications Regulation Act, 2002, (No. 20 of 2002), as amended;

"**ComReg**" means the Commission for Communications Regulation, established under section 6 of the Communications Regulation Act 2002;

"**EECC Regulations**" means the European Union (Electronic Communications Code) Regulations 2022, S.I. No. 444 of 2022;

"**Electronic Communications Network**" and "**Electronic Communications Service"** have the meanings assigned to them in the EECC Regulations;

"**Minister**" means the Minister of Environment, Climate and Communications;

"**Licence Fee**" means the relevant fee which applies to a WBB LMP Licence as set out [in draft form] in Schedule 2 to the Wireless Broadband Low Medium Power Licence Regulations;

"**Wireless Broadband Low Medium Power Licence Regulations**" means the Wireless Telegraphy (WIRELESS BROADBAND LOW MEDIUM POWER LICENCE) Regulations 202X, as set out in draft form in Annex 3 of Document 26/06 [this document];

"**Wireless Broadband Low Medium Power** Licence" or "**WBB LMP Licence**" means a non-exclusive Licence in the form set out in Schedule 1 granted under section 5 of the Act of 1926 to keep and have possession of Apparatus for a WBB LMP Network in a specified place in the State in accordance with and subject to the terms and conditions contained in the Licence and the matters prescribed in these Regulations;

"**Wireless Broadband Low Medium Power Spectrum Lease Licence**" or

"**WBB LMP Spectrum Lease Licence**" means a non-exclusive Licence in the form set out in Schedule 2 granted under section 5 of the Act of 1926 to keep and have possession of Apparatus for a WBB LMP Network in a specified place in the State in accordance with and subject to the terms and conditions contained in the Licence and the matters prescribed in these Regulations;

"**Wireless Telegraphy Act 1926**" means the Wireless Telegraphy Act, 1926 (No. 45 of 1926), as amended.

1.2 DECISION-MAKING CONSIDERATIONS

2. In arriving at its decisions in this document, ComReg has had regard to:

I. the contents of, and the materials and reasoning referred to in, as well as the materials provided by respondents in connection with, the below-listed ComReg documents (insofar as they are relevant to the present Decision):

a) ComReg Document 25/46; and

b) ComReg Document 26/06 [document to which this draft Decision including draft Regulations are attached].

II. The consultants' reports commissioned, and the advice obtained by ComReg, in relation to the subject matter of the documents and materials listed above;

III. the powers, functions, objectives and duties of ComReg, including, without limitation those under and by virtue of:

a) the Communications Regulation Act 2002, and, in particular, sections 10, 12 and 13 thereof;

b) the EECC Regulations, in particular Regulations 4, 5, 14, 15, 16, 17,20,24,27, 28, 30, 31, 34, 36, 99(1)(c), 105 and 110;

c) the 3.8-4.2 GHz Band EC Decision

d) Sections 5 and 6 of the Wireless Telegraphy Act 1926; and

e) the applicable Policy Directions made by the Minister under section 13 of the Communications Regulation Act 2002.

and, noting that it has:

aa) given all interested parties the opportunity to express their views and make their submissions and representations in

accordance with Regulations 36 and 101 of the EECC Regulations;

bb) considered such representations; and

cc) where necessary, evaluated the matters to be decided, in accordance with ComReg's RIA Guidelines (ComReg Document 07/56a) and the RIA Guidelines issued by the Department of An Taoiseach in June, 2009,

1.3 DECISIONS

3. Having had regard to the above considerations, ComReg has decided:

I. subject to obtaining the consent of the Minister to the making by it of the Wireless Broadband Low Medium Power Licence Regulations**, to make those regulations** under section 6 of the Wireless Telegraphy Act 1926, prescribing relevant matters in relation to a WBB LMP Licence and WBB LMP lease Licence, including prescribing the form of the Licence concerned, its duration, fees, and the conditions and restrictions subject to which it is granted;

II. under section 5 of the Wireless Telegraphy Act 1926, and upon application being properly made to it and upon payment of relevant Licence Fee**, to grant** WBB LMP Licences, to a relevant applicant subject to the conditions and restrictions (including conditions as to suspension and withdrawal), prescribed in the WBB LMP Licensing Regulations as currently set out in Annex 3 of Document 26/06 [this document];

Duration of Licence

III. that a WBB LMP Licence shall, unless it has been suspended or withdrawn, remain in force from the date of grant for a period of one year unless renewed;

Conditions of licences

IV. to attach technical conditions to a WBB LMP Licence in accordance with the 3.8-4.2 GHz Band EC Decision;

V. to attach licensing conditions to a WBB LMP Licence as generally described in Chapter 5 and as set out in the draft WBB LMP licensing regulations;

Licence Fees

VI. that the Licence Fee shall be calculated in accordance with Schedule 2 as set out in the WBB LMP Licence Regulations;

VII. that if a Licence is surrendered by the Licensee, the Licensee may be entitled to a refund of the relevant Licence Fee on a pro rata monthly basis;

VIII. that if a Licence is suspended or withdrawn due to a finding by ComReg of non-compliance with any relevant licence conditions, the Licensee shall not be entitled to be repaid any part of the Licence Fee paid by the Licensee, but shall still be liable to pay any sums, including interest, that are outstanding; and,

IX. that if the amount of radio frequency spectrum specified in a Licence is reduced, the Licensee may be entitled to a refund of the relevant Licence Fee already paid in the relevant year on a pro rata monthly basis having regard to the nature of the amendment.

1.4 EFFECTIVE DATE

4. This Decision Instrument shall come into force on the day of its making.

1.5 MAINTENANCE OF OBLIGATIONS

5. If any section or clause contained in this Decision Instrument is found to be invalid or prohibited by the Constitution, by any other law or judged by a court to be unlawful, void or unenforceable, that section or clause shall, to the extent required, be severed from this Decision Instrument and rendered ineffective as far as possible without modifying the remaining section(s) or clause(s) of this Decision Instrument and shall not in any way affect the validity or enforcement of this Decision Instrument.

1.6 STATUTORY POWERS NOT AFFECTED

6. Nothing in this document shall operate to limit ComReg in the exercise of its discretions or powers, or the performance of its functions or duties, or the attainment of objectives under any laws applicable to ComReg from time to time.

GARRETT BLANEY

COMMISSIONER

THE COMMISSION FOR COMMUNICATIONS REGULATION

The X day of X 2026

10 Next steps

10.1 Submitting Comments

10.1 ComReg invites submissions from interested parties with regards to the proposals in this Response to Consultation and draft Decision including draft regulations. Respondents should provide reasoning and supporting information for any views expressed and reference the relevant section / paragraph number from this consultation.

10.2 In accordance with ComReg's Consultation Procedures, the consultation period will run until 17:00 on Friday 27 February 2026.

10.3 Responses must be submitted in written form, by email only, to marketframeworkconsult@comreg.ie and clearly marked – Submissions to ComReg Response to Consultation 26/06.

10.4 Electronic submissions should be submitted in an unprotected format so that they may be readily included in the ComReg submissions document for electronic publication.

10.5 ComReg appreciates that respondents may wish to provide confidential information if their comments are to be meaningful. In order to promote openness and transparency, ComReg will publish all respondents' submissions to this notice, as well as all substantive correspondence on matters relating to this document, subject to the provisions of ComReg's guidelines on the treatment of confidential information (Document 05/24).

10.6 In this regard, respondents should submit views in accordance with the instructions set out below. When submitting a response to this notification that contains confidential information, respondents must choose one of the following options:

10.7 Submit both a non-confidential version and a confidential version of the response. The confidential version must have all confidential information clearly marked and highlighted in accordance with the instruction set out below. The separate non-confidential version must have actually redacted all items that were marked and highlighted in the confidential version.

or

10.8 Submit only a confidential version and ComReg will perform the required

redaction to create a non-confidential version for publication. With this option, respondents must ensure that confidential information has been marked and highlighted in accordance with the instructions set out below. Where confidential information has not been marked as per our instructions below, then ComReg will not create the non-confidential redacted version and the respondent will have to provide the redacted non-confidential version in accordance with option A above.

10.9 For ComReg to perform the redactions under Option B above, respondents must mark and highlight all confidential information in their submission as follows:

(a) Confidential information contained within a paragraph must be highlighted with a chosen particular colour;

(b) Square brackets must be included around the confidential text (one at the start and one at the end of the relevant highlighted confidential information); and

(c) A Scissors symbol (Symbol code: Wingdings 2:38) must be included after the first square bracket.

10.10 For example, "Redtelecom has a market share of [✂ 25%]."

10.2 Next Steps

10.11 Following receipt and consideration of submissions in response to this response to consultation, and other relevant material, ComReg intends to publish a response to consultation and Decisions document along with draft regulations, non-confidential submissions and the application process / guidelines for accepting applications for licences.

10.12 As noted in section in Chapter 4, an Assessment Tool will be made available for existing PMR licensees and for new WBB LMP fees on request. Requests should be made by 17:00 on 10 February 2026. This will consist of compiling the organisation's information and verification of the person's identity and their relationship with that organisation. ComReg may seek additional proof of employment or any other relevant documentation before providing the Assessment Tool.

10.13 Requests must be submitted in written form (email) to the following recipient, clearly marked – "Assessment Tool for ComReg 26/06":

Email: **marketframeworkconsult@comreg.ie**

10.14 ComReg would advise interested parties to request the Assessment Tool as soon as possible to ensure that all submissions are received within the consultation timeframe outlined.

Legal Framework

ComReg's relevant functions pursuant to Section 10 of the Communications Regulation Act 2002, as amended, include the management of the radio frequency spectrum. ComReg's primary objectives in carrying out its statutory functions

In the context of electronic communications are to:

- ensure the efficient management and use of the radio frequency spectrum in Ireland in accordance with a direction under section 13 of the 2002 Act;
- promote competition[123] ;
- contribute to the development of the internal market [124]; and

promote the interests of users within the Community[125] .

Regulation 27 of the Code Regulations governs the management of radio spectrum. Regulation 27(1) requires that ComReg, subject to any directions issued by the Minister pursuant to Section 13 of the 2002 Act and having regard to its objectives under Section 12 of the 2002 Act, Regulation 4 of the Code Regulations, and Article 4 of the Directive, ensure:

(d) the effective management of radio frequencies for ECN and ECS;

(e) that the allocation of, the issuing of general authorisations in respect of, and the granting of individual rights of use for radio spectrum for ECN and ECS are based on objective, transparent, pro-competitive, non-discriminatory and proportionate criteria; and

(f) ensure that harmonisation of the use of radio frequency spectrum by ECN and ECS across the EU is promoted, consistent with the need to ensure its effective and efficient use and in pursuit of benefits for the consumer such as competition, economies of scale and interoperability of networks and services, having regard to all decisions and measures adopted by the European Commission in accordance with Decision No.676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in EU (namely the Radio Spectrum Decision).

Regulation 27(3) provides that, without prejudice to Regulation 27(4), ComReg must

[123] Section 12 (1)(a)(i) of the 2002 Act.
[124] Section 12 (1)(a)(ii) of the 2002 Act.
[125] Section 12(1)(a)(iii) of the 2002 Act.

ensure that all types of technology used for the provisions of ECN or ECS may be used in the radio spectrum declared available for ECSs in the Radio Frequency Plan published under Section 35 of the 2002 Act in accordance with EU law.

Regulation 27(4)[126] provides that, notwithstanding Regulation 27(3), ComReg may, through licence conditions or otherwise, provide for proportionate and non-discriminatory restrictions to the types of radio network or wireless access technology used for electronic communications services where this is necessary to –

- avoid harmful interference,
- protect public health against electromagnetic fields,
- ensure technical quality of service,
- ensure maximisation of radio frequency sharing;
- safeguard the efficient use of spectrum, or
- ensure the fulfilment of a general interest objective as defined by or on behalf of the Government or a Minister of the Government in accordance with Regulation 27(7)[127] .

Regulation 28(1) of the Code Regulations provides that ComReg shall facilitate the use of radio spectrum, including shared use, under a general authorisation under Regulation 6 of the Code Regulations, and limit the granting of individual rights of use for radio spectrum where such rights are necessary to maximise efficient use in light of demand and taking into account the criteria set out in Regulation 28(2).

> Regulation 28(2) of the Code Regulations provides that ComReg may decide to grant individual rights of use for radio frequencies by way of a licence taking account of:
>
> (g) the specific characteristics of the radio spectrum concerned;
>
> (h) the need to protect against harmful interference;
>
> (i) the development of reliable conditions for radio spectrum sharing, where appropriate;
>
> (j) the need to ensure technical quality of communications or service;
>
> (k) objectives of general interest as laid down by or on behalf of the Government or a Minister of the Government in conformity with EU law; and

[126] Regulation 27(4) of the Code Regulations.
[127] Regulation 27(7) of the Code Regulations.

(l) the need to safeguard the efficient use of spectrum.

Regulation 28(3) provides that when considering whether to issue general authorisations or to grant individual rights of use for the harmonised radio spectrum, taking into account technical implementing measures adopted in accordance with Article 4 of the Radio Spectrum Decision, ComReg shall seek to minimise problems of harmful interference, including in cases of shared use of radio spectrum on the basis of a combination of general authorisation and individual rights of use.

Regulation 29(1) of the Code Regulations provides that ComReg shall attach conditions to individual rights of use for radio spectrum in accordance with Regulation 9(1) in such a way as to ensure optimal and the most effective and efficient use of radio spectrum. Regulation 29(7) provides that Regulation 29 is without prejudice to the Act of 1926.

Regulation 20(1) of the Code Regulations provides that: “When granting a right of use for radio spectrum in relation to which — (a) the harmonised usage of the radio spectrum involved in accordance with any international agreements or European Union rules, (b) any relevant access conditions and procedures under any international agreements or European Union rules, or (c) any selection procedure in accordance with international agreements or European Union rules, apply, the Regulator shall grant the right of use for such radio spectrum in accordance therewith and shall not impose any further conditions, additional criteria or procedures which would restrict, alter or delay the grant of the right of use concerned provided that all conditions which may be specified by the Regulator to be complied with by the holder of the right of use in the State have been satisfied.”

Regulation 34(1) provides that: “The Regulator shall promote effective competition and avoid distortions of competition in the internal market when deciding to grant, amend or renew rights of use for radio spectrum for electronic communications networks and services in accordance with these Regulations.”

Draft Licensing Regulations Narrowband PMR

A 1.1 **Any final version of these regulations, which would be made by ComReg under section 6 of the Wireless Telegraphy Act 1926, is expressly subject to the consent of the Minister for the Culture, Communications and Sports under section 37 of the Communications Regulation Act 2002, as amended.**

A 1.2 ComReg may make such editorial changes to the text of any final regulations as it considers necessary and without further consultation, where such changes would not affect the substance of the regulations.

STATUTORY INSTRUMENTS

S.I. No. of 2026

WIRELESS TELEGRAPHY (PRIVATE MOBILE RADIO LICENCE) REGULATIONS 2026

S.I. No. of 2026

WIRELESS TELEGRAPHY (PRIVATE MOBILE RADIO LICENCE) REGULATIONS 2026

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 6(1) of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as substituted by section 182 of the Broadcasting Act 2009 (No. 18 of 2009), and with the consent of the Minister for Culture, Communications and Sports(as adapted by the Tourism, Culture, Arts, Gaeltacht, Sport and Media (Alteration of Name of Department and Title of Minister) Order 2025 (S.I. No. 236 of 2025)) in accordance with section 37 of the Communications Regulation Act 2002 (No. 20 of 2002), hereby makes the following Regulations:

Citation

1. (1) These Regulations may be cited as the Wireless Telegraphy (Private Mobile Radio Licence) Regulations 2025.

Interpretation and Definitions

2. (1) In these Regulations, except where the context otherwise requires:

"Act of 1926" means the Wireless Telegraphy Act 1926 (No. 45 of 1926);

"Act of 1972" means the Wireless Telegraphy Act 1972 (No. 5 of 1972);

"Act of 2002" means the Communications Regulation Act 2002 (No. 20 of 2002);

"Apparatus" means apparatus for wireless telegraphy as defined in section 2 of the Act of 1926;

"Base Station" means a Land Station in the Land Mobile Service located at a fixed location which communicates with Land Mobile Stations ;

"Commission for Communications Regulation" or "Commission" means the Commission for Communications Regulation established under the Act of 2002;

"Consumer Price Index" or "CPI" means the consumer price index as published from time to time by the Central Statistics Office;

"Central Statistics Office" means the Central Statistics Office of Ireland or its successor;

"Bandwidth" means a specific portion of the radio spectrum that is used for transmitting and receiving information;

"EECC Regulations" means the European Union (Electronic Communications Code) Regulations 2022 (S.I. No. 444 of 2022);

"Electronic Communications Network" and "Electronic Communications Service" have the meanings assigned to them in the EECC Regulations;

"equivalent isotropically radiated power" or "e.i.r.p." means the product of the power supplied to the antenna and the absolute or isotropic gain in a given direction relative to an isotropic antenna;

"Individual Rights of Use" means the individual rights of use for radio spectrum to use certain radio frequencies for Electronic Communications Networks or services as specified in a Licence and subject to licence conditions;

“Land Mobile Service” means a mobile service between Base Stations and Land Mobile Stations, or between Land Mobile Stations;

“Land Mobile Station” means Apparatus in the Land Mobile Service capable of surface movement within the geographical limits of the Republic of Ireland;

“Land Station” means Apparatus in the mobile service not intended to be used while in motion;

“Lease” has the meaning set out in the Transfer and Lease Regulations;

"Licence Fee" means the relevant fee as set out in Schedule 4 which applies to a PMR or PMSE Licence;

“Licence” means a non-exclusive licence granted in accordance with section 5 of the Act of 1926 in accordance with and subject to the matters prescribed in these Regulations to keep, have possession of, install, maintain, work and use Apparatus in a specified place in the State granted to the licensee;

“Licensee” means the holder of a Licence;

“Non-exclusive”, in relation to a Licence, means that the Commission is not precluded from authorising the keeping and having possession by persons other than the Licensee, on a Non-Interference and Non-Protected Basis, of Apparatus for wireless telegraphy for the radio frequency spectrum specified in the Licence;

“Non-Interference and Non-Protected Basis” means that the use of Apparatus for wireless telegraphy is subject to no Harmful Interference being caused to any Radiocommunication Service, and that no claim may be made for the protection of Apparatus for wireless telegraphy used on this basis against Harmful Interference originating from Radiocommunication Services;

“Harmful Interference” has the meaning set out in the EECC Regulations;

“Mobile Station” means Apparatus in the mobile service intended to be used while in motion or during halts at unspecified points;

“Network” means any system using Apparatus to provide Terrestrial Radiocommunications;

“Private Mobile Radio” means a private radio system, not connected to a public communications network, used to provide a Land Mobile Service;

“Private Mobile Radio Licence” or “PMR Licence” means a non-exclusive Licence in the form set out in Schedule 1 granted in accordance with section 5 of the Act of 1926 in accordance with and subject to the matters prescribed in these Regulations to keep, have possession of, install, maintain, work and use Apparatus in a specified place in the State, in accordance with and subject to the terms and conditions set out therein and the matters prescribed in these Regulations;

“Private Mobile Radio Spectrum Lease Licence” or “PMR Spectrum Lease Licence” means a non-exclusive Licence in the form set out in Schedule 3 granted under section 5 of the Act of 1926 to keep and have possession of Apparatus in a specified place in the State, in accordance with and subject to the terms and conditions set out therein and the matters prescribed in these Regulations;

“Programme Marking and Special Events” or “PMSE” means wireless services used in the production of live theatre and concert events as well as supporting activities such as news gathering, sports events and outside broadcasts;

"Programme Marking and Special Events Licence" or "PMSE Licence" a non-exclusive Licence in the form set out in Schedule 2 granted on a Non-Interference and Non-Protected Basis in accordance with section 5 of the Act of 1926 in accordance with and subject to the matters prescribed in these Regulations to keep, have possession of, install, maintain, work and use Apparatus in a specified place in the State, in accordance with and subject to the terms and conditions set out therein and the matters prescribed in these Regulations;

"Private Mobile Radio Network" or "PMR Network" means a closed or private user group which can operate in simplex, semi or full duplex modes, using the granted Rights of Use, providing Land Mobile Services;

"Programme Marking and Special Events Network" or "PMSE Network" means a closed or private user group which can operate in simplex, semi or full duplex modes, using the granted Rights of Use, providing Land Mobile Services;

"Radio Equipment Regulations" means the European Union (Radio Equipment) Regulations 2017 (S.I. No. 248 of 2017);

"Radiocommunication" means a Telecommunication by means of radio waves;

"Radiocommunication Service" means a service as defined in Section III of the Radio Regulations of the International Telecommunication Union involving the transmission, emission or reception of radio waves for specific telecommunication purposes;

"Shared Rights of Use" means the shared rights of use for radio spectrum to use certain radio frequencies for Electronic Communications Networks or services as specified in a Licence and subject to licence conditions;

"Telecommunication" means any transmission, emission or reception of signs, signals, writings, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems;

"Terrestrial Radiocommunication" means any radiocommunication other than space radiocommunication or radio astronomy;

"Transfer" has the meaning set out in the Transfer and Lease Regulations;

"Transfer and Lease Regulations" means the Wireless Telegraphy (Transfer and Lease of Individual Rights of Use For Radio Spectrum for the Provision of Electronic Communications Networks and Services) Regulations, 2025 (S.I. No. of 2025);

"Transferee" has the meaning set out in the Transfer and Lease Regulations;

"Transferor" has the meaning set out in the Transfer and Lease Regulations;

"Undertaking" means a person engaged or intending to engage in the provision of electronic communications networks or services or associated facilities;

"Wireless Telegraphy" has the same meaning as set out in section 2 of the Act of 1926.

(2) In these Regulations –

(a) a reference to a Regulation or a Schedule is to a Regulation of, or a Schedule to, these Regulations, unless it is indicated that reference to some other enactment is intended;

(b) a reference to a paragraph or subparagraph is to the paragraph or subparagraph of the provision in which the reference occurs unless it is indicated that reference to some other provision is intended;

(c) a word or expression that is used in these Regulations and that is also used in the Act of 2002 has, unless the context otherwise requires, the same meaning in these Regulations that it has in that Act; and

(d) a word or expression that is used in these Regulations and that is also used in the EECC Regulations has, unless the context otherwise requires, the same meaning in these Regulations that it has in those Regulations.

Licences to which these Regulations apply

3. These Regulations apply to PMR Licences, PMSE Licences and (so far as applicable) PMR Spectrum Lease Licences.

Limitation of Licence

4. (1) A Licence granted under these Regulations does not grant to the Licensee named therein any right, interest or entitlement other than the right to keep, install, maintain, work and use, at specified locations in the State, Apparatus for wireless telegraphy for the purpose of the provision of a PMR Network or PMSE Network.

(2) Nothing in these Regulations shall absolve the Licensee from any requirement in law to obtain such additional approvals, consents, licences, permissions and authorisations that may be necessary for the discharge of the obligations or the exercise of entitlements under the Licence. The Licensee is responsible for all costs, expenses and other commitments, financial and non-financial, in respect of the Licence and the operation of a PMR Network or PMSE Network and the Commission shall bear no responsibility for such costs, expenses or commitments.

Application for Licences and Form of Licences

5. (1) An application for a Licence will be made to the Commission in such form as may be determined by the Commission.

(2) A person who makes an application under paragraph (1) of this Regulation shall furnish to the Commission such information as the Commission may reasonably require for the purpose of assessing the application and carrying out its functions under the Act of 1926, the Act of 2002 and the EECC Regulations and, if the person, without reasonable cause, fails to comply with this paragraph, the Commission may refuse to grant a Licence to the person.

(3) The grant of a Licence is subject to payment of the prescribed fee as set out in Schedule 4 to these Regulations.

(4) Subject to Regulation 7, a PMR Licence shall be in the form specified in Schedule 1 with such variation, if any, whether by addition, deletion or alteration as the Commission may determine from time to time or in any particular case in accordance with the EECC Regulations.

(5) Subject to Regulation 7, a PMSE Licence shall be in the form specified in Schedule 2 with such variation, if any, whether by addition, deletion or alteration as the Commission may determine from time to time or in any particular case in accordance with the EECC Regulations.

Duration and Renewal of Licences

6. (1) A PMR Licence shall, unless it has been withdrawn or had its duration reduced under Regulation 8, remain in force from the date of grant for a period of not greater than one year unless renewed under these Regulations, subject to paragraph (3).

(2) A PMR Licence may be renewed from time to time by the Commission under this Regulation, subject to paragraph (3).

(3) Prior to the expiration of a PMR Licence, the Commission may, by notice in writing given to the Licensee or sent to the Licensee at the address of the Licensee specified in the PMR Licence and subject to the payment of the relevant fees in advance of the expiry date, renew the PMR Licence for one year from the day following the expiration of the last previous period during which it was in force. The granting or renewal of a PMR Licence shall not be construed as warranting that the PMR Licence shall be renewed at any time in the future.

(4) In considering whether to renew a PMR Licence, the Commission shall have particular regard to:

(a) whether the Licensee has complied with these Regulations and the conditions attached to the expiring PMR Licence;

(b) the efficient management and use of radio spectrum; and

(c) the avoidance of Harmful Interference.

(5) A PMSE Licence shall, unless it has been withdrawn or had its duration reduced under Regulation 8, remain in force from the date of grant for a period of not greater than one year and shall then expire.

Conditions of PMR and PMSE Licences

7. (1) It shall be a condition of a Licence that:

(a) the Licensee shall comply with these Regulations and the conditions attached to the Licence;

(b) the Licensee shall ensure that the Apparatus is used only on such radio frequency spectrum and at the locations as may be specified in the Licence and such radio frequencies shall be used in an efficient manner;

(c) the Licensee shall make payments of the fees as set out in Schedule 4 to these Regulations, and in accordance with Regulation 10 of these Regulations;

(d) the Licensee shall request the Commission to consider and decide on an amendment to the licence to reflect any proposed changes to the information contained in the Licence;

(e) the Licensee shall furnish such information and reports in respect of the Licence, including relating to the Apparatus and its use as may be requested by the Commission from time to time;

(f) The Licensee shall submit to the Commission information detailing the location(s) and technical information of deployed Apparatus under Part 3 of the licence within 30 days of each anniversary of the commencement of a PMR Licence, in a format as may be determined by the Commission;

(g) the Licensee shall ensure that the Apparatus, or any part thereof, shall be installed, maintained, operated and used so as not to cause Harmful Interference;

(h) the Licensee shall ensure compliance with any special conditions imposed under section 8 of the Act of 1972 and subject to which this Licence is deemed by subsection (3) of that section to be issued;

(i) the Licensee shall ensure compliance with any commitments made by the Licensee prior to the granting of a PMR Licence or PMSE Licence, or renewal of a PMR Licence, or, where applicable, to the invitation for application for rights of use;

(j) the Licensee shall ensure that, save as may be required by law, access to, and use of, the Apparatus is restricted to the Licensee, employees or agents of the Licensee, persons authorised by or on behalf of the Licensee, and third-parties to whom the Licensee is providing PMR or PMSE services;

(k) where the Commission is satisfied that a Licensee has failed to comply with any provision of these Regulations or a condition of the Licence, and the Commission has served on the Licensee a written notice prohibiting the use of Apparatus by such date and time as may be specified in the notice, then the Licensee will cease to use that Apparatus on or before the applicable date and time until such notice has been withdrawn by the Commission, and the Licensee shall take such measures as may be specified by the Commission in the notice;

(l) the Licensee shall upon becoming aware of any event likely to materially affect their ability to comply with these Regulations, or any conditions set out or referred to in the Licence, notify the Commission of that fact in writing within 5 working days;

(m) the Licensee shall on request from an authorised officer of the Commission permit the inspection of the Apparatus, enable access to the site or sites on which the Apparatus is located and produce the associated Licence for inspection;

(n) the Licensee shall use the spectrum rights of use granted exclusively for the operation and functioning of the Licensee's PMR Network or PMSE Network;

(o) the Licensee shall comply with all obligations under relevant international agreements relating to the use of apparatus or the frequencies to which they are assigned;

(p) the Licensee shall ensure that all apparatus, or any part thereof, complies with the Radio Equipment Regulations; and

(q) The Licensee may use the granted spectrum Rights of Use to provide PMR or PMSE services to third-parties.

Enforcement, Amendment, Withdrawal and Suspension

8. (1) Enforcement by the Commission of compliance by a Licensee with conditions attached to their Licence shall be in accordance with the Wireless Telegraphy Act 1926, the EECC Regulations, as applicable, and the Communications Regulation and Digital Hub Development Agency Act 2023, as applicable, and any other requirements under applicable national or European Community law.

(2) The Commission may amend the Licence from time to time where objectively justifiable and in a proportionate manner. Any amendment shall be made subject to and in accordance with the EECC Regulations, and any other requirements under applicable national or European Union law.

(3) Without prejudice to paragraph (2) of this Regulation, at the request of the Licensee, the Commission may, if it considers it appropriate to do so, amend the Licence by adding to, deleting from or altering the radio frequency spectrum specified in the Licence on which the Apparatus may be used. Any such amendment shall be affected by notice in writing from the Commission specifying the amendment and given to the Licensee or sent to the Licensee at the address specified in the Licence or notified to the Commission pursuant to the Licence.

(4) A Licence may be suspended or withdrawn by the Commission in accordance with the EECC Regulations, as applicable, and any other requirements under applicable national or European Community law.

Spectrum Transfers and Leases

9. (1) The Licensee shall notify the Commission of its intention to Transfer or Lease any rights of use for radio frequencies attaching to a PMR Licence in accordance with the Transfer and Lease Regulations.

(2) The Licensee may only Transfer or Lease the rights of use for radio frequencies attaching to a licence in accordance with the Transfer and Lease Regulations.

(3) The Commission may grant a Licence to a Transferee in accordance with the Transfer and Lease Regulations.

(4) The Commission may grant a PMR Spectrum Lease Licence to a Lessee in accordance with the Transfer and Lease Regulations.

(5) A PMR Spectrum Lease Licence to which these Regulations apply shall be in the form specified in Schedule 1, with such variation, if any, whether by addition, deletion or alteration as the Commission may determine from time to time or in any particular case in accordance with the EECC Regulations.

(6) The commencement date and expiry date of a PMR Spectrum Lease Licence shall be set by the Commission with reference to the commencement date and expiry date of the relevant Lease and shall be specified in the PMR Spectrum Lease Licence. A PMR Spectrum Lease Licence to which these Regulations apply shall in any event expire on or before the expiry date of the PMR Licence of the relevant Lessor.

(7) A PMR Spectrum Lease Licence may be suspended or withdrawn by the Commission in accordance with the EECC Regulations, including if the associated PMR Licence of the relevant Lessor has been revoked, suspended or withdrawn under these Regulations.

Licence Fees

10. (1) Fees as set out and provided for in Part 1 of Schedule 4 are hereby prescribed in relation to PMR Licences for the purpose of section 6 of the Act of 1926, as amended.

(2) Fees as set out and provided for in Part 2 of Schedule 4 are hereby prescribed in relation to PMSE Licences for the purpose of section 6 of the Act of 1926, as amended.

(3) The fees set out and provided for in Part 1 of Schedule 4 shall be payable by the Licensee to the Commission on the date of first granting of a PMR Licence and thereafter annually on or before each anniversary of the date of first granting of a PMR Licence.

(4) The fees set out and provided for in Part 2 of Schedule 4 shall be payable by the Licensee to the Commission on the date of first granting of a PMSE Licence.

(3) Fees shall be paid to the Commission by way of Electronic Funds Transfer or such other means, and on such terms (including terms as to the place of payment) as the Commission may decide. Where the date of payment falls on a Saturday, a Sunday or a public holiday, payment shall be made on or before the last working day before the date of payment.

(4) If a PMR Licence is suspended or withdrawn, the Licensee may be entitled to a refund on a pro rata monthly basis for the remaining period of the PMR Licence of the relevant fee.

(5) If a Licence is suspended or withdrawn due to a finding by the Commission of non-compliance with any relevant licence conditions, the Licensee shall not be entitled to be repaid any part of the fee paid by the Licensee, but shall still be liable to pay any sums, including interest, that are outstanding.

(6) Failure by a Licensee to pay part or all of a fee required under this Regulation on or before the date it falls due shall constitute non-compliance by the Licensee concerned with these Regulations, and the Commission, in respect of such non-payment of a fee, may take enforcement action in accordance with Regulation 8 and may take steps to recover the amount due in accordance with paragraphs 7 and 8 of this Regulation.

(7) Where a fee or part of a fee is not paid in time, the Licensee concerned shall pay to the Commission interest on the fee or part thereof that was or is outstanding. Interest shall accrue from the date when such fee or part thereof fell due until the date of payment of such fee or part thereof and shall be calculated at the same rate payable in respect of late payments in commercial transactions pursuant to the European Communities (Late Payment in Commercial Transactions) Regulations 2012 (S.I. No. 580 of 2012), as amended.

(8) Any fee payable and owed by a Licensee under this Regulation may be recovered by the Commission from the Licensee as a simple contract debt in any court of competent jurisdiction.

Commencement and Transitional Arrangements

11. (1) Subject to paragraph (2) of this Regulation, these Regulations will come into effect on 1 February 2028. The following Regulations will continue in force and then be revoked on 1 February 2028:

- S.I. No. 646/2005 – Wireless Telegraphy (Third Party Business Radio Licence) Regulations, 2005.
- S.I. No. 435/2002 - Wireless Telegraphy (Mobile Radio Systems) Regulations, 2002.
- S.I. No. 114/1992 - Wireless Telegraphy (Business Radio Licence) (Amendment) Regulations, 1992.
- S.I. No. 83/1988 - Wireless Telegraphy (Community Repeater Licence) Regulations, 1988.
- S.I. No. 75/1986 - Wireless Telegraphy (Business Radio Licence) (Amendment) Regulations, 1986.
- S.I. No. 84/1985 - Wireless Telegraphy (Business Radio Licence) (Amendment) Regulations, 1985.
- S.I. No. 88/1983 - Wireless Telegraphy (Business Radio Licence) (Amendment) Regulations, 1983.

- S.I. No. 73/1982 - Wireless Telegraphy (Business Radio Licence) (Amendment) Regulations, 1982.
- S.I. No. 114/1981 - Wireless Telegraphy (Business Radio Licence) (Amendment) Regulations, 1981.
- S.I. No. 193/1980 - Wireless Telegraphy (Business Radio Licence (Amendment) Regulations, 1980.
- S.I. No. 181/1957 - Wireless Telegraphy Act, 1926. Wireless Telegraphy (Business Radio.
- S.I. No. 2/1956 - Wireless Telegraphy Act, 1926. Wireless Telegraphy (Business Radio Licence) Regulations, 1956.
- S.I. No. 320/1949 - Wireless Telegraphy (Business Radio Licence) Regulations, 1949.

(2) A licence granted under the Wireless Telegraphy (Business Radio Licence) Regulations, 1949 (S.I. No. 320/1949), as amended, the Wireless Telegraphy (Community Repeater Licence) Regulations, 1988, the Wireless Telegraphy (Mobile Radio Systems) Regulations, 2002 , and the Wireless Telegraphy (Third Party Business Radio Licence) Regulations, 2005, in force immediately before the commencement of these Regulations will continue in force as until its expiry date.

SCHEDULE 1

WIRELESS TELEGRAPHY ACT, 1926

WIRELESS TELEGRAPHY (PRIVATE MOBILE RADIO LICENCE) REGULATIONS, 2026

Part 1

Licence Number: .....

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5(1) of the Wireless Telegraphy Act, 1926 (No. 45 of 1926), as substituted by section 182 of the Broadcasting Act 2009 (No. 18 of 2009), grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use Apparatus for PMR as specified in Part 2 of this Licence subject to the Licensee observing the terms and conditions and restrictions as prescribed in Part 4 of this Licence and by the Wireless Telegraphy (Private Mobile Radio Licence) Regulations, 2026 (S.I. of 2026).

Licensee: .....

Address: .....

Commencement and Termination Dates (if applicable):

The Licence comes into effect on ***DD/MM/YY*** and, subject to withdrawal or suspension, expires on DD/MM/YY.

Signed: .....

on behalf of the Commission for Communications Regulation

Date: .....

Part 2

Apparatus Location and Details

Service Area centre point (Decimal Degrees)	
Coverage Area (km^2)	

Base Station Location(s) (Decimal Degrees)		
Channel assignment(s)	**Base Tx:**	**Mobile Tx:**
Rights of Use	**Individual**	**Shared**
Bandwidth (kHz)		
Maximum e.i.r.p. (W)	Base: Mobile:	
Number of mobile stations		
Antenna Type		
Antenna Gain (dB)		
Antenna Height above ground (m)		

Part 3

Special conditions imposed under section 8 of the Act of 1972

Part 4

Commitments made by the Licensee

SCHEDULE 2

WIRELESS TELEGRAPHY ACT, 1926

WIRELESS TELEGRAPHY (PRIVATE MOBILE RADIO LICENCE) REGULATIONS, 2026

Programme Marking and Special Events Licence

Part 1

Licence Number: .....

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5(1) of the Wireless Telegraphy Act, 1926 (No. 45 of 1926), as substituted by section 182 of the Broadcasting Act 2009 (No. 18 of 2009), grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use Apparatus for Programme Marking and Special Events as specified in Part 3 of this Licence subject to the Licensee observing terms and conditions and restrictions as prescribed by the Wireless Telegraphy (Private Mobile Radio Licence) Regulations, 2026 (S.I. of 2026). The Licence Conditions will be specified by the Commission in accordance with the Transfer and Lease Regulations.

Licensee: .....

Address: .....

Commencement and Termination Dates (if applicable):

The Licence comes into effect on ***DD/MM/YY*** and, subject to withdrawal or suspension, expires on DD/MM/YY.

Signed: .....

on behalf of the Commission for Communications Regulation

Date: .....

Part 2

The Apparatus to which this Licence applies

Part 3

Frequency Assignment Technical Conditions of Apparatus

Part 3

Special conditions imposed under section 8 of the Act of 1972

Part 4

Commitments made by the Licensee

SCHEDULE 3

WIRELESS TELEGRAPHY ACT, 1926

WIRELESS TELEGRAPHY (PRIVATE MOBILE RADIO LICENCE) REGULATIONS, 2026

Private Mobile Radio Spectrum Lease Licence

Part 1

Licence Number: .....

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5(1) of the Wireless Telegraphy Act, 1926 (No. 45 of 1926), as substituted by section 182 of the Broadcasting Act 2009 (No. 18 of 2009), grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use Apparatus for PMSE as specified in Part 3 of this Licence subject to the Licensee observing terms and conditions and restrictions as prescribed by the Wireless Telegraphy (Private Mobile Radio Licence) Regulations, 2026 (S.I. of 2026). The Licence Conditions will be specified by the Commission in accordance with the Transfer and Lease Regulations.

Licensee: .....

Address: .....

Commencement and Termination Dates (if applicable):

The Licence comes into effect on ***DD/MM/YY*** and, subject to withdrawal or suspension, expires on DD/MM/YY.

Signed: .....

on behalf of the Commission for Communications Regulation

Date: .....

Part 2

Apparatus Location and Details

Service Area centre point (Decimal Degrees)	
Coverage Area (km^2)	

Base Station Location(s) (Decimal Degrees)		
Channel assignment(s)	**Base Tx:**	**Mobile Tx:**
Rights of Use	**Individual**	**Shared**
Bandwidth (kHz)		
Maximum e.i.r.p. (W)	Base: Mobile:	
Number of mobile stations		
Antenna Type		
Antenna Gain (dB)		
Antenna Height above ground (m)		

Part 3

Commitments made by the Licensee

SCHEDULE 4

Part 1

FEES PAYABLE FOR PMR LICENCES

The annual fee payable for a PMR Licence ("Licence Fee") is equal to the fee for that PMR Licence in the base year of 2026 (the "Base Fee"), indexed to the annual rate of inflation since 2026 using the Consumer Price Index. The fee for a PMR licence is calculated as follows:

$$\mathbf{A = \alpha[1 + \beta c]\, \gamma^{E}}$$

Where:

- A is the fee for an annual PMR licence;
- α is the fee for a channel. The base fee is set at €263 for a 12.5 kHz duplex channel;
- β is the premium value for a Licence with national coverage. β is set at 4;
- c is the variable associated with the coverage area of the licence. If the coverage area of the licence is national, then c=1. If the coverage area of the licence is on-site (<=1km^2), then c=0. If the coverage area of the licence is greater than on-site but less than national, c is the area covered by the PMR Licence expressed as a proportion of national coverage which is 70,273 km².
- γ is the proportionate premium for Individual Rights of Use Licences relative to Licences with Shared Rights of Use. γ is set at 3.
- E is a binary variable that is associated with the spectrum Rights of Use of a PMR Licence. If the PMR Licence requires Individual Rights of Use, then E=1. If the PMR Licence requires Shared Rights of Use, then E=0.

The inflation adjustment is set in the following formula as follows:

$$B = \frac{CPI_t}{CPI_{2026}} * 100$$

Where CPI_t represents the 12-month Consumer Price Index published by the Central Statistics Office, for year *t*, the year immediately preceding the application. CPI_{2026} represents the 12-month Consumer Price Index figures published by the Central Statistics Office for 2026. The first indexation shall

take place on the 1st of March of 2029 and shall occur annually thereafter on that same date.

The annual fee indexed to the Consumer Price Index is equal to:

$$C = A \times B$$

Where:

- A is the fee for a PMR Licence; and
- B is the CPI adjustment for the relevant period.

Where a PMR Licence is required for a period less than 12 months, Licence Fees are applied pro-rata using the number of months for which the licence is granted as follows:

$$E = C \times \frac{D}{12}$$

Where:

- C is the annual fee indexed to the Consumer Price Index;
- D is the number of whole months for which the PMR Licence is granted; and
- E is the appropriate fee to be paid.

If a Licence is granted for a period of less than one month, then, for the purpose of these calculations only, the licence shall be considered as a licence granted for a period of one month.

Part 2

FEES PAYABLE FOR PMSE LICENCES

The fee payable for a PMSE Licence ("PMSE Licence Fee") is equal to the fee for that PMSE Licence in the base year of 2026 (the "PMSE Base Fee"), indexed to the annual rate of inflation since 2026 using the Consumer Price Index. The annual base fees for PMSE Licences are set out in table 1 below.

Apparatus	Annual Base Fee
Two-way radio	€65.75 per 12.5kHz simplex channel
Wireless microphone/In-ear Monitor	€65.75 per every five 200 kHz simplex kHz channels (or part thereof)
Wireless Camera	€131.50 per 10MHz channel
Telemetry	€65.75 per 12.5 kHz simplex channel
Wireless Broadband	€131.50 per 10 MHz channel

Table 11: Base fees for PMSE Licences up to 12 months durations

Where a PMSE Licence is granted for less than or equal to 3 months, the base fees for the PMSE Licence are set out in table 2 below.

Apparatus	Fee for licences up to 3 months
Two-way radio	€50 per 12.5kHz simplex channel
Wireless microphone/In-ear Monitor	€50 per every five 200 kHz simplex channels (or part thereof)
Wireless Camera	€100 per 10MHz channel
Telemetry	€50 per 12.5kHz simplex channel
Wireless Broadband	€100 per 10MHz channel

Table 12: Base fees for PMSE Licences up to 3 months durations

The inflation adjustment for PMSE Licences is set as follows:

$$B = \frac{CPI_t}{CPI_{2026}} * 100$$

Where CPI_t represents the 12-month Consumer Price Index published by the Central Statistics Office, for year *t*, the year immediately preceding the application. CPI_{2026} represents the 12-month Consumer Price Index figures published by the Central Statistics Office for 2026. The first indexation shall

take place on the 1st of March of 2029 and shall occur annually thereafter on that same date.

The annual fee indexed to the Consumer Price Index is equal to:

$$C = A \times B$$

Where:

- A is the fee for a PMSE Licence; and
- B is the CPI adjustment for the relevant period.

GIVEN under the Official Seal of the Commission for Communications Regulation,

Commissioner.

The Minister for Culture, Communications and Sports, consents to the making of the foregoing Regulations.

GIVEN under the Official Seal of the Minister for Culture, Communications and Sports,

Minister for Culture, Communications and Sports.

EXPLANATORY NOTE

(This note is not part of the Instrument and does not purport to be a legal interpretation.)

These Regulations provide for the grant of Licences for Apparatus for PMR for the regulation of such Apparatus, and for the payment of fees by persons granted Licences for that Apparatus.

Draft Licensing Regulations WBB LMP

A 1.1 **Any final version of these regulations, which would be made by ComReg under section 6 of the Wireless Telegraphy Act 1926, is expressly subject to the consent of the Minister for Culture, Communications and Sport under section 37 of the Communications Regulation Act 2002, as amended.**

A 1.2 ComReg may make such editorial changes to the text of any final regulations as it considers necessary and without further consultation, where such changes would not affect the substance of the regulations.

STATUTORY INSTRUMENTS

S.I. No. of 2026

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WIRELESS TELEGRAPHY (WIRELESS BROADBAND LOW MEDIUM POWER LICENCE) REGULATIONS 2026

S.I. No. of 2026

WIRELESS TELEGRAPHY (WIRELESS BROADBAND LOW MEDIUM POWER LICENCE) REGULATIONS 2026

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 6(1) of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as substituted by section 182 of the Broadcasting Act 2009 (No. 18 of 2009), and with the consent of the Minister for Culture, Communications and Sport (as adapted by the Tourism, Culture, Arts, Gaeltacht, Sport and Media (Alteration of Name of Department and Title of Minister) Order 2025 (S.I. No. 236 of 2025)) in accordance with section 37 of the Communications Regulation Act 2002 (No. 20 of 2002), hereby makes the following Regulations:

Citation

1. (1) These Regulations may be cited as the Wireless Telegraphy (Wireless Broadband Low Medium Power Licence) Regulations 2026.

Interpretation and Definitions

2. (1) In these Regulations, except where the context otherwise requires:

"3.8-4.2 GHz Band" means radio frequency spectrum in the range 3800 MHz to 4200 MHz;

"Act of 1926" means the Wireless Telegraphy Act 1926 (No. 45 of 1926);

"Act of 1972" means the Wireless Telegraphy Act 1972 (No. 5 of 1972);

"Act of 2002" means the Communications Regulation Act 2002 (No. 20 of 2002);

"Apparatus" means apparatus for wireless telegraphy as defined in section 2 of the Act of 1926;

"Base Station" means a fixed radio device providing the gateway between the back-end network, for example the gateway to the internet or the user's fixed infrastructure, and the WBB LMP radio network devices and is either a

(i) Low Power Base Station; or

(ii) Medium Power Base Station;

"Commission" means the Commission for Communications Regulation established under the Act of 2002;

"Consumer Price Index" or "CPI" means the consumer price index as published from time to time by the Central Statistics Office;

"Central Statistics Office" means the Central Statistics Office of Ireland or its successor;

"Decision of 2025" means the European Commission Implementing Decision (EU) 2025/2425 of 2 December 2025 on the harmonisation of the 3 800-4 200 MHz frequency band for the shared use by terrestrial wireless broadband systems capable of providing local-area network connectivity in the Union;

"EECC Regulations" means the European Union (Electronic Communications Code) Regulations 2022 (S.I. No. 444 of 2022);

"Electronic Communications Network" and "Electronic Communications Service" have the meanings assigned to them in the EECC Regulations;

“equivalent isotropically radiated power (‘e.i.r.p.’)” means the product of the power supplied to the antenna and the absolute or isotropic gain in a given direction relative to an isotropic antenna;

“Harmful Interference” has the meaning set out in the EECC Regulations;

“Lease” has the meaning set out in the Transfer and Lease Regulations;

“Lessee” has the meaning set out in the Transfer and Lease Regulations;

“Lessor” has the meaning set out in the Transfer and Lease Regulations;

"Licence Fee" means the relevant fee as set out in Schedule 2 which applies to a WBB LMP Licence;

“Licence” means a non-exclusive licence granted in accordance with section 5 of the Act of 1926 in accordance with and subject to the matters prescribed in these Regulations to keep, have possession of, install, maintain, work and use Apparatus in a specified place in the State granted to the licensee, being one of:

(a) a WBB LMP Licence; or

(b) a WBB LMP Spectrum Lease Licence;

“Licensee” means the holder of a Licence;

“Low Power Licence Area” means an area defined by the centre of a circle with a radius of 50 metres, where Low Power Base Stations can be worked and used;

“Low Power Base Station” means a Base Station that has a e.i.r.p in accordance Table 1 of part 6 of Schedule 1 and, if outdoors, has a maximum antenna height of 10 metres above ground level;

“Medium Power Base Station” means a Base Station that has a e.i.r.p in accordance with Table 1 of Part 6 of Schedule 1 and is in accordance with the technical parameters for the Base Station as set out in the WBB LMP Licence;

“MFCN” means Mobile or Fixed Communications Networks;

“Non-exclusive”, in relation to a Licence, means that the Commission is not precluded from authorising the keeping and having possession by persons other than the Licensee, on a Non-Interference and Non-Protected Basis, of Apparatus for wireless telegraphy for the radio frequency spectrum specified in the Licence;

“Non-Interference and Non-Protected Basis” means that the use of Apparatus for wireless telegraphy is subject to no Harmful Interference being caused to any Radiocommunication Service, and that no claim may be made for the protection of Apparatus for wireless telegraphy used on this basis against Harmful Interference originating from Radiocommunication Services;

“Radio Altimeter” means a downward-looking radar ranging system that measures the height of an aircraft above terrain and obstacles with a high degree of accuracy, integrity, and availability, during all phases of flight;

“Radio Equipment Regulations” means the European Union (Radio Equipment) Regulations 2017 (S.I. No. 248 of 2017);

“Radiocommunication Service” means a service as defined in the Radio Regulations of the International Telecommunication Union involving the transmission, emission or reception of radio waves for specific telecommunication purposes;

"Terminal Station" means fixed or mobile user equipment connected to a WBB LMP network which communicates with a Base Station;

"Transfer" has the meaning set out in the Transfer and Lease Regulations;

"Transfer and Lease Regulations" means the Wireless Telegraphy (Transfer and Lease of Individual Rights of Use For Radio Spectrum for the Provision of Electronic Communications Networks and Services) Regulations, 2025 (S.I. No. 99 of 2025);

"Transferee" has the meaning set out in the Transfer and Lease Regulations;

"Wireless Broadband Low/Medium Power Network" or "WBB LMP Network" means a low /medium power terrestrial wireless broadband system used for the provision of local-area wireless connectivity in accordance with the harmonised technical conditions set out in the Decision of 2025;

"Wireless Broadband Low/Medium Power Licence" or "WBB LMP Licence" means a non-exclusive Licence in the form set out in Schedule 1 granted under section 5 of the Act of 1926 to keep and have possession of Apparatus for a WBB LMP Network in a specified place in the State in accordance with and subject to the terms and conditions contained in the Licence and the matters prescribed in these Regulations;

"Wireless Broadband Low/Medium Power Spectrum Lease Licence" or "WBB LMP Spectrum Lease Licence" means a non-exclusive Licence in the form set out in Schedule 2 granted under section 5 of the Act of 1926 to keep and have possession of Apparatus for a WBB LMP Network in a specified place in the State in accordance with and subject to the terms and conditions contained in the Licence and the matters prescribed in these Regulations;

"Wireless Telegraphy" has the same meaning as set out in section 2 of the Act of 1926.

(2) In these Regulations –

(a) a reference to a Regulation or a Schedule is to a Regulation of, or a Schedule to, these Regulations, unless it is indicated that reference to some other enactment is intended;

(b) a reference to a paragraph or subparagraph is to the paragraph or subparagraph of the provision in which the reference occurs unless it is indicated that reference to some other provision is intended;

(c) a word or expression that is used in these Regulations and that is also used in the Act of 2002 has, unless the context otherwise requires, the same meaning in these Regulations that it has in that Act; and

(d) a word or expression that is used in these Regulations and that is also used in the EECC Regulations has, unless the context otherwise requires, the same meaning in these Regulations that it has in those Regulations.

Licences to which these Regulations apply

3. These Regulations apply to WBB LMP Licences and WBB LMP Spectrum Lease Licences.

Limitation of Licence

4. (1) A Licence granted under these Regulations does not grant to the Licensee named therein any right, interest or entitlement other than the right to keep, install, maintain, work and use, at specified locations in the State, Apparatus for the purpose of the provision of a WBB LMP Network.

(2) Nothing in these Regulations shall absolve the Licensee from any requirement in law to obtain such additional approvals, consents, licences, permissions and authorisations that may be necessary for the discharge of the obligations or the exercise of entitlements under the Licence. The Licensee is responsible for all costs, expenses and other commitments, financial and non-financial, in respect of the Licence and the operation of a WBB LMP Network and the Commission shall bear no responsibility for such costs, expenses or commitments.

Application for Licences and Form of Licences

5. (1) An application for a Licence will be made to the Commission in such form as may be determined by the Commission.

(2) A person who makes an application under paragraph (1) of this Regulation shall furnish to the Commission such information as the Commission may reasonably require for the purpose of assessing the application and carrying out its functions under the Act of 1926, the Act of 2002 and the EECC Regulations and, if the person, without reasonable cause, fails to comply with this paragraph, the Commission may refuse to grant a Licence to the person.

(3) The grant of a WBB LMP Licence is subject to payment of the prescribed fee as set out in Schedule 2 to these Regulations.

(4) A WBB LMP Licence shall be in the form specified in Schedule 1 with such variation, if any, whether by addition, deletion or alteration as the Commission may determine from time to time or in any particular case in accordance with the EECC Regulations.

Duration and Renewal of WBB LMP Licences

6. (1) A WBB LMP Licence shall, unless it has been withdrawn or had its duration reduced under Regulation 8, remain in force from the date of grant for a period of not greater than one year unless renewed under these Regulations, subject to paragraph (3).

(2) A WBB LMP Licence may be renewed from time to time by the Commission under this Regulation.

(3) Prior to the expiration of a WBB LMP Licence, the Commission may, by notice in writing given to the Licensee or sent to the Licensee at the address of the Licensee specified in the WBB LMP Licence and subject to the payment of the relevant fees in advance of the expiry date and the Licensee meeting its licence conditions, renew the WBB LMP Licence for one year from the day following the expiration of the last previous period during which it was in force. The granting or renewal of a WBB LMP Licence shall not be construed as warranting that the WBB LMP Licence shall be renewed at any time in the future.

(4) In considering whether to renew a WBB LMP Licence, the Commission shall have particular regard to:

(a) whether the Licensee has complied with these Regulations and the conditions attached to the expiring WBB LMP Licence;

(b) the efficient management and use of radio spectrum; and

(c) the avoidance of Harmful Interference.

Conditions of Licences

7. (1) It shall be a condition of a Licence that:

(a) the Licensee shall comply with these Regulations and the conditions attached to the Licence;

(b) the Licensee shall ensure that any Apparatus complies with the Decision of 2025;

(c) the Licensee shall ensure that any Apparatus used within its WBB LMP Network is tuneable so as to be capable of operating across the whole of the 3.8-4.2 GHz Band;

(d) the Licensee shall ensure that the Apparatus is used only on such radio frequency spectrum and at the locations as may be specified in the Licence and such radio frequencies shall be used in an efficient manner;

(e) the licensee shall ensure compliance with any measures that the Commission may specify from time to time in order to protect Radio Altimeters operating above 4.2 GHz from Harmful Interference;

(f) the licensee shall ensure compliance with any measures that the Commission may specify from time to time in order to protect MFCN networks operating in the 3.4 GHz to 3.8 GHz frequency range from Harmful Interference;

(g) the Licensee shall make payments of the fees as set out in Schedule 2 to these Regulations, and in accordance with Regulation 10 of these Regulations;

(h) the Licensee shall request the Commission to consider and decide on an amendment to the licence to reflect any proposed changes to the information contained in the Licence;

(i) the Licensee shall furnish such information and reports in respect of the Licence, including relating to the Apparatus and its use as may be requested by the Commission from time to time;

(j) The Licensee shall submit to the Commission information detailing the location(s) and technical information of deployed Base Stations and Apparatus under Parts 2, 3, 4 and 5 of the licence annually at a time and in a format as may be determined by the Commission;

(k) the Licensee shall ensure that the Apparatus, or any part thereof, shall be installed, maintained, operated and used so as not to cause Harmful Interference;

(l) the Licensee shall ensure compliance with any special conditions imposed under section 8 of the Act of 1972 and subject to which this Licence is deemed by subsection (3) of that section to be issued;

(m) the Licensee shall ensure compliance with any commitments made by the Licensee prior to the granting or renewal of a WBB LMP Licence or, where applicable, to the invitation for application for rights of use;

(n) the Licensee shall ensure that, save as may be required by law, access to, and use of, the Apparatus is restricted to the Licensee, employees or agents of the Licensee, and persons authorised by or on behalf of the Licensee;

(o) where the Commission is satisfied that a Licensee has failed to comply with any provision of these Regulations or a condition of the Licence, and the Commission has served on the Licensee a written notice prohibiting the use of Apparatus by such date and time as may be specified in the notice, then the Licensee will cease to use that Apparatus on or before the applicable date and time until such notice has been withdrawn by the Commission, and the Licensee shall take such measures as may be specified by the Commission in the notice;

(p) the Licensee shall upon becoming aware of any event likely to materially affect their ability to comply with these Regulations, or any conditions set out or referred to in the Licence, notify the Commission of that fact in writing within 5 working days;

(q) the Licensee shall on request from an authorised officer of the Commission permit the inspection of the Apparatus, enable access to the site or sites on which the Apparatus is located and produce the associated Licence for inspection;

(r) the Licensee shall use the spectrum rights of use granted exclusively for the operation and functioning of the Licensee's WBB LMP Network;

(s) the Licensee shall comply with all obligations under relevant international agreements relating to the use of apparatus or the frequencies which are assigned to them under the Licence; and

(t) ensure that all apparatus, or any part thereof, complies with the Radio Equipment Regulations.

Enforcement, Amendment, Withdrawal and Suspension

8. (1) Enforcement by the Commission of compliance by a Licensee with conditions attached to their Licence shall be in accordance with the EECC Regulations and the Communications Regulation and Digital Hub Development Agency Act 2023, as appropriate and any other requirements under applicable national or European Community law.

(2) The Commission may amend the Licence from time to time where objectively justifiable and in a proportionate manner. Any amendment shall be made subject to and in accordance with the EECC Regulations, and any other requirements under applicable national or European Union law.

(3) Without prejudice to paragraph (2) of this Regulation, at the request of the Licensee, the Commission may, if it considers it appropriate to do so, amend the Licence by adding to, deleting from or altering the radio frequency spectrum specified in the Licence on which the Apparatus may be used. Any such amendment shall be subject to payment of the appropriate amendment fee as specified by the Commission and shall be effected by notice in writing from the Commission specifying the amendment and given to the Licensee or sent to the Licensee at the address specified in the Licence or notified to the Commission pursuant to the Licence.

(4) A Licence may be suspended or withdrawn by the Commission in accordance with the EECC Regulations, and any other requirements under applicable national or European Community law.

Spectrum Transfers and Leases

9. (1) The Licensee shall notify the Commission of its intention to Transfer or Lease any rights of use for radio frequencies attaching to a licence in accordance with the Transfer and Lease Regulations.

(2) The Licensee may only Transfer or Lease the rights of use for radio frequencies attaching to a licence in accordance with the Transfer and Lease Regulations.

(3) The Commission may grant a Licence to a Transferee in accordance with the Transfer and Lease Regulations.

(4) The Commission may grant a WBB LMP Spectrum Lease Licence to a Lessee in accordance with the Transfer and Lease Regulations.

(5) A WBB LMP Spectrum Lease Licence to which these Regulations apply shall be in the form specified in Schedule 3, with such variation, if any, whether by addition, deletion or alteration as the Commission may determine from time to time or in any particular case in accordance with the EECC Regulations.

(6) The commencement date and expiry date of a WBB LMP Spectrum Lease Licence shall be set by the Commission with reference to the commencement date and expiry date of the relevant Lease and shall be specified in the WBB LMP Spectrum Lease Licence. A WBB LMP Spectrum Lease Licence to which these Regulations apply shall in any event expire on or before the expiry date of the Licence of the relevant Lessor.

(7) A WBB LMP Spectrum Lease Licence may be suspended or withdrawn by the Commission in accordance with the EECC Regulations, including if the associated Licence of the relevant Lessor has been revoked, suspended or withdrawn under these Regulations.

Licence Fees

10. (1) Fees as set out and provided for in Schedule 2 are hereby prescribed in relation to WBB LMP Licences for the purpose of section 6 of the Act of 1926, as amended.

(2) The fees set out and provided for in Schedule 2 shall be payable by the Licensee to the Commission prior to the grant or renewal of a WBB LMP Licence, or prior to the grant of additional rights of use under a WBB LMP Licence where appropriate.

(3) Fees shall be paid to the Commission by way of Electronic Funds Transfer or such other means, and on such terms (including terms as to the place of payment) as the Commission may decide. Where the date of payment falls on a Saturday, a Sunday or a public holiday, payment shall be made on or before the last working day before the date of payment.

(4) Fees for any period of less than one year shall be calculated on a pro rata monthly basis for such period.

(5) If a WBB LMP Licence is suspended or withdrawn, the Licensee may be entitled to a refund on a pro rata monthly basis for the remaining period of the WBB LMP Licence of the relevant fee.

(6) If a WBB LMP Licence is suspended or withdrawn, due to a finding by the Commission of non-compliance with any relevant licence conditions, the Licensee shall not be entitled to be repaid any part of the fee paid by the Licensee,

(7) Failure by a Licensee to pay part or all of a fee required under this Regulation on or before the date it falls due shall constitute non-compliance by the Licensee concerned with these Regulations, and the Commission, in respect of such non-payment of a fee, may take enforcement action in accordance with Regulation 8 and may take steps to recover the amount

due in accordance with paragraphs 8 and 9 of this Regulation.

(8) Where a fee or part of a fee is not paid in time, the Licensee concerned shall pay to the Commission interest on the fee or part thereof that was or is outstanding. Interest shall accrue from the date when such fee or part thereof fell due until the date of payment of such fee or part thereof and shall be calculated at the same rate payable in respect of late payments in commercial transactions pursuant to the European Communities (Late Payment in Commercial Transactions) Regulations 2012 (S.I. No. 580 of 2012), as amended.

(9) Any fee payable and owed by a Licensee under this Regulation may be recovered by the Commission from the Licensee as a simple contract debt in any court of competent jurisdiction.

(10) The fee for a WBB LMP Licence granted on foot of a Transfer is the annual licence fee specified in paragraph 1 of this Regulation with respect to the rights being transferred.

SCHEDULE 1

WIRELESS TELEGRAPHY ACT, 1926

WIRELESS TELEGRAPHY (WIRELESS BROADBAND LOW MEDIUM POWER LICENCE) REGULATIONS, 202X

Wireless Broadband Low Medium Power Licence

Part 1

Licence Number: .....

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5(1) of the Wireless Telegraphy Act, 1926 (No. 45 of 1926), as substituted by section 182 of the Broadcasting Act 2009 (No. 18 of 2009), grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use Apparatus for WBB LMP Networks as specified in Parts 2, 3, 4 and 5 of this Licence subject to the Licensee observing the terms and conditions and restrictions as prescribed by the Wireless Telegraphy (Wireless Broadband Low Medium Power Licence) Regulations, 202X (S.I. of 202X), including but not limited to, the following:

(1) The Licensee shall ensure that it complies with all of the conditions contained within the Regulations and within Parts 1 to 7 of this Licence.

(2) The Licensee shall ensure that it makes payment of all fees as detailed in the Regulations.

Licensee: .....

Address: .....

Commencement and Termination Dates (if applicable):

The Licence comes into effect on **DD/MM/YY** and, subject to withdrawal or suspension, expires on **DD/MM/YY**.

Signed: .....

on behalf of the Commission for Communications Regulation

Date: .....

Part 2

Details of Low Power Licence Areas and Base Stations

For each Low Power Licence Area on the Licence:

Licence Area Details	**Base station**
Licence Area ID Address Commencement Date Coordinates of Centre Point of Low Power Licence Area Frequencies Assigned (MHz) Frame Structure being used (as appropriate) Target Service	Base Station details: • Low Power Base Station ID/Name • Base Station Location (Decimal Degrees) • Base Station Sectors (No.) • Max e.i.r.p. (dBm/MHz) / sector (as appropriate) • Antenna Height above ground (m): • Antenna Tilt • Antenna Radiation Restrictions (as appropriate) (dB/degrees) • Equipment Index Reference (antenna and radio)

Part 3

Details of Medium Power Base Stations

For each Medium Power Base Station on the Licence:

Base Station and Apparatus Details
Base Station details: • Medium Power Base Station ID/Name • Base Station Location (Decimal Degrees) • Base Station Sectors (No.) • Commencement Date • Frequencies Assigned (MHz) • Max e.i.r.p. (dBm/MHz) / sector (as appropriate) • Antenna Height above ground (m): • Antenna Tilt • Antenna Radiation Restrictions (as appropriate) (dB/degrees) • Frame structure • Target Service • Equipment Index Reference (antenna and radio)

Part 4

Terminal Stations

Terminal Station and Apparatus
Terminal Stations (Mobile): • Number • Equipment index references Terminal Stations (Fixed): • Number • Equipment index references • Location (Decimal Degrees) • Max e.i.r.p. (dBm/MHz) • Antenna Height above ground (m):

Part 5

The Apparatus to which this Licence applies

Equipment Index Reference	**Terrestrial System**	**Equipment Description (Antenna, Base Station, Terminal Station (mobile), Terminal Station (Fixed)**	**Manufacturer**	**Model**

Part 6

Licence Conditions

Section 1: Technical Conditions

1. Permitted Terrestrial Systems

Only Terrestrial Systems compatible with the Decision of 2025 may be worked and used in the 3.8 – 4.2 GHz Band.

2. Duplex Mode

In the 3.8-4.2 GHz Band, the duplex mode of operation is TDD.

3. Base Station In-block Requirements

The technical conditions defined in **Table 13** below shall apply to base stations unless otherwise specified by the Commission in the Licence.

Table 13: Maximum in-block EIRP per cell for WBB LMP base stations operating in the 3 800 - 4 200 MHz frequency band

Type of base station	EIRP per cell (Note 1 and Note 2)
Low Power Base Station	≤ 24 dBm/channel for BW ≤ 20 MHz ≤ 18 dBm/5MHz for BW > 20 MHz
Medium Power Base Station	≤ 44 dBm/channel for BW ≤ 20 MHz ≤ 38 dBm/5MHz for BW > 20 MHz
Note 1: In a multi-sector site, the value per 'cell' corresponds to the value for one of the sectors. Note 2: Higher EIRP levels may be authorised by the Commission in exceptional and duly justified cases, provided that protection of FSS receiving earth stations and FS links (where appropriate at national level) in the band as well as terrestrial systems providing WBB ECS below 3 800 MHz and Radio Altimeters operating above 4 200 – 4 400 MHz frequency band is ensured, taking into account their future development, including in the neighbouring EU Member States. The network coverage shall remain local (i.e. no nationwide networks).	

4. Base Station Out-of-Band Requirements

The technical conditions defined in Table 14 below shall apply to Base Stations.

Table 14: Maximum unwanted emission levels above 4 200 MHz for WBB LMP base stations

Frequency range	Non-AAS base station EIRP limit [dBm/5MHz per cell] (Note 1)	AAS medium power base station TRP limit [dBm/5MHz per cell]
4 200-4 205 MHz	11	1

4 205-4 240 MHz	8	-3
Note 1: In a multi-sector base station site, the value per 'cell' corresponds to the value for one of the sectors.		

5. Terminal Station in-block requirements

The following parameters shall apply to Terminal Stations unless otherwise specified by the Commission in the Licence:

- Maximum WBB LMP Terminal Station power: 28 dBm TRP (including a 2 dB tolerance); and
- Transmission power control is mandatory and shall be activated.

For fixed Terminal Stations, the Commission may specify an alternative in-block EIRP limit, provided that protection of in-band and adjacent band incumbent services and cross-border obligations are fulfilled.

6. International Coordination

The Licensee shall comply with all Memoranda of Understanding ('MoU') between the Commission and its neighbouring national regulatory authorities responsible for communications matters, in particular the Office of Communications ("Ofcom") in the UK, or its successors, in relation to the 3.8-4.2 GHz Band.

7. WBB LMP Technical Conditions for Low Power Licence Area

Low Power Licence Area: Base stations may be worked and used anywhere within 50m of the centre point, and Terminal Stations may be worked and used inside or outside of the Low Power Licence Area.

Maximum EIRP: As specified in Table 1 of Part 6 for a Low Power Base Station.

Maximum Antenna Height: 10 m above ground level for antennas located outdoors. No restriction for antennas located indoors.

8. WBB LMP Technical Conditions for Medium power base stations

Details of a licensed medium power base station will be as set out in the licence schedule and will include details as to the maximum E.I.R.P, coordinates, antenna height, antenna azimuth and radiation pattern, antenna tilt and other details as may be specified by the Commission.

Section 2: Rollout and usage requirements

1. Standard rollout obligation

(1) Licensees shall achieve and maintain for each Low Power Licence Area and Medium Power Base Station at least one Base Station and one Terminal Station within 9 months of licence commencement.

(2) For each Base Station, the licensee shall maintain a daily base station traffic log that is of sufficient detail to demonstrate to ComReg's satisfaction the usage of the base station

(e.g. traffic, radio frequencies used, time of transmissions) on the WBB LMP Network and the interactions with Terminal Stations on the network.

2. Longer rollout obligation

(1) Licensees that have been granted a Licence that is based on licence commitments set out in Part 7 of this Licence shall achieve and maintain for the remaining duration of the Licence the number of base stations and terminal stations as specified on the Licence.

(2) For each Base Station, the licensee shall maintain a daily base station traffic log that is of sufficient detail to demonstrate to ComReg's satisfaction the usage of the base station (e.g. traffic, radio frequencies used, time of transmissions) on the WBB LMP Network and the interactions with Terminal Stations on the network.

3. Reporting of compliance on rollout and usage obligation

(1) The Licensee that has a standard rollout obligation shall submit a Rollout and Usage Compliance Report setting out its rollout and usage within 30 days of the date on which the 9 month rollout obligation comes into effect as specified on the licence.

(2) The Licensee that has a longer rollout obligation shall submit an Annual Rollout and Usage Compliance Report setting out its rollout and usage within 30 days of the anniversary of licence and at other times as may be reasonably requested by the Commission.

(3) In the Rollout and Usage Compliance Report the Licensee shall notify the Commission whether or not it has met the applicable rollout and usage obligation(s) ("Annual Rollout Compliance Report"). Where the Licensee has failed to meet the relevant rollout and usage obligation, the Licensee shall provide detailed reasons and supporting information for same.

(4) The information required for this Rollout and Usage Compliance Report will be specified by the Commission in advance and the Rollout and Usage Compliance Report shall have sufficient detail and granularity to allow the Commission to verify the contents of the Licensee's Rollout and Usage Compliance Report.

(5) The Commission may publish details of these reports subject to the provisions of the Commission's guidelines on the treatment of confidential information.

(6) Failure by the Licensee to submit the Rollout and Usage Compliance Report to the Commission within the specified time period shall be deemed to be non-compliance by the Licensee with these reporting obligations and the rollout and usage obligations.

(7) The Commission reserves the right to inspect any Base Station and any associated infrastructure installed by a Licensee at any time to ensure that the system is configured and operating in accordance with its Licence conditions and the Licensee shall facilitate any such inspections by the Commission within such time as may be specified by the Commission.

(8) In addition to the Rollout and Usage Compliance Report as identified above, the Commission reserves the right to require a Licensee to provide additional material or information in respect of their Licence as it deems appropriate in line with its statutory obligations and duties, which may include but is not limited to, an up-to-date list of the technical capabilities and locations of Base Stations covered by the Licence.

Part 7

Details of Rollout, Usage and Reporting commitments by the Licensee

Low Power Licence Areas:

For each Low Power Licence Area on the Licence:

Licence Area	**Rollout**	**Usage**	**Reporting**
Licence Area ID	Minimum number of Base Stations to be worked and used Date by which Base Station is to be worked and used Interim milestones (as appropriate)	Date by which the Licensee shall put all spectrum assigned for the License Area into use and actively use one or more Terminal Stations Interim milestones (as appropriate)	Date by which the Licensee shall report to the Commission on its compliance with its Rollout and Usage obligations for the Licence Area

Medium Power Base Stations:

For each Medium Power Base Station on the Licence:

Medium Power Base Station	**Rollout**	**Usage**	**Reporting**
Medium Power Base Station ID	Date by which Base Station is to be worked and used Interim milestones (as appropriate)	Date by which the Licensee shall put all spectrum assigned for the License Area into use and actively use one or more Terminal Stations Interim milestones (as appropriate)	Date by which the Licensee shall report to the Commission on its compliance with its Rollout and Usage obligations for the Medium Power Base Station

Other Rollout, Usage, Reporting Obligations based on Licensee Commitments (as appropriate):

SCHEDULE 2

FEES PAYABLE IN CONNECTION WITH WBB LMP LICENCES

The annual fee payable for a WBB LMP Licence ("Licence Fee") is equal to the fee for that WBB LMP Licence in the base year of 2026 (the "Base Fee"), indexed to the annual rate of inflation since 2026 using the Consumer Price Index. The inflation adjustment is set in the following formula as follows:

$$Indexing\ Multiplier = \frac{CPI_t}{CPI_{2026}} * 100$$

Where CPI_t represents the 12-month Consumer Price Index published by the Central Statistics Office, for year *t*, the year immediately preceding the application. CPI_{2026} represents the 12-month Consumer Price Index published by the Central Statistics Office for 2026. The first indexation shall take place on the 1st of August 2028 and shall occur annually thereafter on that same date.

The annual fee indexed to the Consumer Price Index is equal to:

$$C = A \times B$$

Where:

- A is the base fee for an annual WBB LMP Licence; and
- B is the CPI adjustment for the relevant period.

The base fee for an annual WBB LMP Licence is calculated as follows:

$$A = \delta + \sum_{i=1}^{n} e_i\,\tau + \sum_{j=1}^{m} e_j(\tau + \mu \cdot b_j \cdot p_j)$$

Where:

- δ is the fixed component of the licence fee, which is set at €400;
- $e_i\tau$ represents the annual fee before CPI indexation associated with a Low Power Licence Area i;
- $e_j\ (\tau + \mu \cdot b_j \cdot p_j)$ represents the annual fee before CPI indexation associated with a Medium Power Base Station j;
- n is the number of low power areas included on the licence;
- where e_i is the rollout variable for Low Power Licence Area i, which is set at 1 where standard rollout applies and is set at 3

where extended rollout applies;

- τ is the fixed fee per low power area or medium power base station, which is set at €100;
- m is the number of medium power base stations included on the licence;
- where e_j is the rollout variable for Medium Power Base Station j, which is set at 1 where standard rollout applies and is set at 3 where extended rollout applies;
- μ controls the general level of the variable component of the fee for each medium power base station, and is set at 5;
- b_j is the bandwidth in MHz licensed for medium power base station j; and
- p_j is a power band value for each medium power base station j on the Licence, determined from **Table 15**, which depends on the medium power band in which the maximum licensed power of medium power base station i occurs.

Table 15: *Power band value by medium power band*

Medium Power band	**BW ≤ 20 MHz**		**BW > 20 MHz**		**Power Band Value P**
	Range	**Mid-point**	**Range**	**Mid-point**	
Low Medium	24 – 31 dBm	27.5 dBm	18 – 25 dBm	21.5 dBm	1
Mid Medium	31 – 38 dBm	34.5 dBm	25 – 32 dBm	28.5 dBm	5
High Medium	38 – 44 dBm	41 dBm	32 – 38 dBm	35 dBm	23

Where an additional Low Power Licence Area or Medium Power Base Station is added to a WBB LMP Licence after commencement or renewal of that Licence and before the next renewal of that Licence, the relevant fee for that Low Power Licence Area or Medium Power Base Station shall be the annual fee for a Low Power Licence Area or Medium Power Base Station, as applicable, adjusted (a) on a pro rata monthly basis for the remaining period until the next renewal of the WBB LMP Licence and (b) according to the CPI indexation for the relevant period.

SCHEDULE 3

WIRELESS TELEGRAPHY ACT, 1926

WIRELESS TELEGRAPHY (WIRELESS BROADBAND LOW MEDIUM POWER LICENCE) REGULATIONS, 2026

Wireless Broadband Low Medium Power Spectrum Lease Licence

Part 1

Licence Number: .....

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 5(1) of the Wireless Telegraphy Act, 1926 (No. 45 of 1926), as substituted by section 182 of the Broadcasting Act 2009 (No. 18 of 2009), grants to the Licensee specified, authorisation to keep, have possession of, install, maintain, work and use Apparatus for WBB LMP Networks as specified in Parts 1 to 6 of this Licence subject to the Licensee observing terms and conditions and restrictions as prescribed by the Wireless Telegraphy (Wireless Broadband Low Medium Power Licence) Regulations, 2026 (S.I. of 2026). The Licence Conditions will be specified by the Commission in accordance with the Transfer and Lease Regulations.

Licensee: .....

Address: .....

Commencement and Termination Dates (if applicable):

The Licence comes into effect on **DD/MM/YY** and, subject to withdrawal or suspension, expires on **DD/MM/YY**.

Signed: .....

on behalf of the Commission for Communications Regulation

Date: .....

Part 2

Details of Low Power Licence Areas and Base Stations

For each Low Power Licence Area on the Licence:

Licence Area Details	**Base station**
Licence Area ID Address Commencement Date Coordinates of Centre Point of Low Power Licence Area Frequencies Assigned (MHz) Frame Structure being used (as appropriate) Target Service	Base Station details: • Low Power Base Station ID/Name • Base Station Location (Decimal Degrees) • Base Station Sectors (No.) • Max e.i.r.p. (dBm/MHz) / sector (as appropriate) • Antenna Height above ground (m): • Antenna Tilt • Antenna Radiation Restrictions (as appropriate) (dB/degrees) • Equipment Index Reference (antenna and radio)

Part 3

Details of Medium Power Base Stations

For each Medium Power Base Station on the Licence:

Base Station and Apparatus Details
Base Station details: • Medium Power Base Station ID/Name

• Base Station Location (Decimal Degrees) • Base Station Sectors (No.) • Commencement Date • Frequencies Assigned (MHz) • Max e.i.r.p. (dBm/MHz) / sector (as appropriate) • Antenna Height above ground (m): • Antenna Tilt • Antenna Radiation Restrictions (as appropriate) (dB/degrees) • Frame structure • Target Service • Equipment Index Reference (antenna and radio)

Part 4

Terminal Stations

Terminal Station and Apparatus
Terminal Stations (Mobile): • Number • Equipment index references Terminal Stations (Fixed): • Number • Equipment index references • Location (Decimal Degrees) • Max e.i.r.p. (dBm/MHz)

- Antenna Height above ground (m):

Part 5

The Apparatus to which this Licence applies

Equipment Index Reference	Terrestrial System	Equipment Description (Antenna, Base Station, Terminal Station (mobile), Terminal Station (Fixed)	Manufacturer	Model

Part 6

Licence Conditions

The Licence Conditions will be specified by the Commission in accordance with the Transfer and Lease Regulations.

GIVEN under the Official Seal of the Commission for Communications Regulation,

[DATE].

Commissioner.

The Minister for Culture, Communications and Sport (as adapted by the Tourism, Culture, Arts, Gaeltacht, Sport and Media (Alteration of Name of Department and Title of Minister) Order 2025 (S.I. No. 236 of 2025)), in accordance with section 37 of the Communications Regulation Act, 2002, consents to the making of the foregoing Regulations.

GIVEN under the Official Seal of the Minister for Culture, Communications and Sport,

[DATE].

Minister for Culture, Communications and Sport.

EXPLANATORY NOTE

(This note is not part of the Instrument and does not purport to be a legal interpretation.)

These Regulations provide for the grant of Licences for Apparatus for WBB LMP Networks for the regulation of such Apparatus, and for the payment of fees by persons granted Licences for that Apparatus.