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 Decision and draft Regulations

Submissions to Consultation

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Respondents Submissions

1. Transport Infrastructure Ireland.

2. DECT Forum.

3. Druid Software Ltd.

4. European Users Wireless Enterprise Network Association, 'EUWENA'.

5. Analogue Devices.

6. Sigma Wireless Ltd.

7. Shure UK Ltd.

Bonneagar Iompair Éireann
Transport Infrastructure Ireland

22 August 2025

Comments provided by Transport Infrastructure Ireland for ComReg document "Proposed licensing regimes for Private Mobile Radio (PMR) and Low & Medium Power Wireless Broadband Systems (WBB LMP)"

1. Comment regarding Section 6.4: Transmission Power in the band for WBB LMP

a. The power levels proposed for WBB low-power systems in ComReg's consultation document may be inadequate to support the effective deployment of private 5G networks in densely populated urban environments, particularly in the context of public transport infrastructure such as metro and tram systems. Enforcing low-power limitations could necessitate a significantly higher density of Base Transceiver Stations (BTS), which may trigger planning permission requirements and introduce operational risks including signal degradation, elevated interference levels, and inefficient handovers. From both technical and commercial perspectives, it would be prudent for ComReg to reassess the applicability of low-power systems for public transport use cases, and to consider enabling medium-power deployments that better align with the performance and coverage requirements of such infrastructure.

2. Comment regarding Section 6.9: Rollout and Usage Obligations for WBB LMP

a. The six-month activation period for WBB (LMP) licences, as proposed in ComReg's licensing regimes document, may be insufficient for the deployment of major public transport infrastructure, such as metro and tram systems. 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.

3. Comment regarding Section 6.10: Licence Fees for WBB LMP

a. The ComReg document titled "Proposed Licensing Regimes for Private Mobile Radio (PMR) and Low- and Medium-Power Wireless Broadband Systems (WBB LMP)" lacks clarity regarding WBB (LMP) licence fees. While PMR fee structures are outlined, equivalent information for WBB LMP is absent. It would be beneficial if ComReg provided at least high-level guidance and a sample calculation to support prospective WBB LMP licence applicants.

b. Low WBB LMP licence fees could offer significant benefits for government and public transport initiatives, enabling more efficient use of public funds and supporting the delivery of cost-effective infrastructure solutions across Ireland.

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4. Comment regarding Section 6.11: Application Process for WBB LMP

a. Transport Infrastructure Ireland (TII) projects, operates under extended procurement timelines. The level of detail ComReg proposes for supporting licence applications typically becomes available only at later design stages, following procurement completion and contract award. To mitigate the risk of public transport projects being unable to access WBB LMP spectrum when needed, it would be advantageous for ComReg to consider an exemption mechanism such as an initial licence reservation with reduced fees tailored specifically to the unique constraints of publicly funded infrastructure initiatives.

Dear ComReg,

Reference: Submission to ComReg Consultation 25/46

Response by the DECT Forum to proposed licensing regimes for Private Mobile Radio (PMR) and Low & Medium Power Wireless Broadband Systems (WBB LMP) – Open Consultation

Introduction

DECT Forum would like to thank ComReg for the opportunity to respond to the above-named open consultation. Our response focuses principally on ComReg's proposed WBB LMP licensing framework in the 3.8-4.2 GHz band. DECT Forum's response can be considered non-confidential.

The DECT Forum is a membership organisation which exists to support a collaborative environment of the Digital Enhanced Cordless Telecommunications (DECT) industry and drive programs to develop and improve DECT wireless technology to exceed wireless communications expectations and meet the needs of a technology-shifting world.[1]

DECT-2020 NR

DECT-2020 NR (also known as DECT NR+) is defined as an IMT-2020 (5G) radio interface technology for massive Machine-Type Communication (mMTC) and Ultra-Reliable Low-Latency Communication (URLLC) in Recommendation ITU-R M.2150-1.[2] It is the first and only non-cellular 5G technology that meets the 5G requirements for URLLC and mMTC. This makes NR+ a viable technology in the 3.8 to 4.2 GHz band for local area connectivity for 5G private network use cases as identified by ComReg in its Consultations (and supporting reports from Plum Consulting and DotEcon).

More information on DECT-2020 NR is provided in the Annex.

Technology and service neutrality

As ComReg notes in its consultation, technology and service neutrality is a key principle enshrined in the European and Irish regulatory framework for electronic communications. Legislation should not favour or discriminate against any particular technology as technology-specific regulations lead to dependency on specific manufacturers, developers, suppliers or distributors of technology or services. Neutrality guarantees freedom of choice and market competition by not forcing users into using any specific technology.

Similarly, the policy objectives in the European Commission mandate to CEPT are clear: to provide shared access in the band for local connectivity for vertical industries on a technology and service neutral basis. Technical conditions are required which preserve flexibility and satisfy the heterogeneous requirements of an extensive range of industry verticals for local private networks that would otherwise not be met by public mobile networks.[3]

The fundamental error in the development of the technical conditions and draft ECC Recommendations has been the approach that the 3.8-4.2 GHz band as another MFCN band rather than a private/professional mobile radio (PMR) band supporting 5G technology. Technical conditions purporting to encourage innovative use cases on a foundation of technology neutrality are instead

[1] DECT's list of member organisations can be found here: https://www.dect.org/members.aspx

[2] Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-2020 (IMT-2020)

[3] The EC Mandate and the RSPG Opinion on which it is based recommends that Member States, 'consider dedicated or shared spectrum for the business/sectoral needs that may not be met by mobile operators'.

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derived from specific 3GPP technology standards for a specific type of use, i.e. public mobile networks.

In the context of those policy objectives, and especially in an environment where private 5G networks is 'a nascent market now but is gathering momentum'[4], national administrations should exercise caution not to pick winners, either by accident or design. ComReg acknowledges this uncertainty in its statement of 'General principles to inform a WBB LMP framework'.[5]

While DECT Forum agrees with many of ComReg's preliminary assessments and proposed approaches, DECT Forum has concerns that some of these are predicated on the assumption that use cases will operate like public mobile networks using 3GPP standards-based technology. DECT Forum highlights that some decisions on the licensing framework may, inadvertently and unnecessarily, undermine the principle of technological neutrality.

ComReg's position is unsurprising given the current position of the work on 3.8-4.2 GHz in CEPT and Plum's narrow assessment of this work and its failure to report equitably on DECT-2020 NR as a candidate technology for private 5G. For example, 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.

DECT Forum, therefore, is of the view that some of the approaches proposed by ComReg risks undermining the principle of technology and service neutrality highlighted in Section 6.2.4. by focusing on 3GPP-based technology only and not viewing the potential for other technologies to deliver 5G private connectivity. This, potentially, could limit competition, remove choice of technology and stifle innovation.

Proposed WBB LMP licensing framework in the 3.8-4.2 GHz band

ComReg assessment and view	DECT Forum (DF) comments
Ensuring efficient use of spectrum	DF strongly supports the objective to ensure efficient use of spectrum. DECT-2020 NR is specifically designed as a sharing technology able to operate in different regulatory frameworks, including general or coordinated licensing regimes. DECT-2020 NR's inherent advanced spectrum management features, including listen-before-talk, dynamic network configuration, transmission power control in all devices, and its non-cellular architecture ensures efficient spectrum use.
Promoting innovation and competition is preserved	DF agrees with ComReg on the need to promote innovation and preserve competition. To this end, ComReg should ensure that all technical and non-technical conditions within the licensing framework are fully technology and service neutral.
Technology and service neutrality	See the Section above.
Local Area network connectivity on a shared basis	DF fully supports ComReg's view that the 3.8-4.2 GHz band should be for local PMR shared between many different

[4] ComReg Consultation para. 5.25, p.74
[5] ComReg Consultation s.6.2.1 – 6.2.4, p.77

	licensees (in this way it has significant similarities to other PMR bands).
Make the whole 3.8-4.2 GHz band available	DF supports this view

Details of Proposed WBB LMP Licensing framework

ComReg assessment and view	DECT Forum (DF) comments
Transmission Power in the band	DECT-2020 NR does not conform to the model of a base station and terminal stations. All devices in a DECT NR+ network are the same and can assume one of three roles: • Sink node: this is the gateway between the back-end network (e.g. the internet) and the NR+ network. • Leaf node: the end point of the NR+ network. • Relay node: extends the network by routing messages to other devices or clusters. To accommodate this architecture, ECC Decision (24)01 defines a 'base station' (in the context of the Decision) as: • 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. DF suggests that ComReg includes a similar definition in its authorisation framework to reflect the different approach to network architecture DECT NR+ embodies. This will avoid any issues with the term 'base station' in the licence being mischaracterized. This is an example where licence terms and conditions could undermine the principle of technical neutrality. All DECT NR+ devices operate within the low power limit and at less than that defined for terminal stations in Annex 1 of ECC Decision (24)01. All DECT devices within a network implement transmission power control and this spectrum use benefit should be recognised and accommodated within the regulations. DF supports the proposal that medium power base stations would not be authorized in cities. DF agrees with ComReg's view that MP use in urban areas could constrain the supply of spectrum for other users. DF does not support the use of powers higher than the low and medium power levels set out in Table 1. DF is of the view that this is contrary to the policy objective of local area connectivity.

Licensing and network planning approach for WBB LMP	DF agrees with the proposed approach for case-by-case planning by the national regulator. In principle DF supports ComReg's view to have separate approaches for low power and medium power licensing. However, many industrial complexes, factories, ports etc. can easily exceed 50 m radius, and while these can be covered by multiple low power assignments ComReg should consider whether 'single owner' sites larger than 50 m could be included as a single low power assignment. This would benefit the prospective licensee and present no greater interference risk than multiple 50 m assignments over the whole area.
Bandwidth	DF has no strong view and agrees with ComReg's view that large bandwidths risk possible future use by assigning all the spectrum to a small number of users.
Synchronisation	DF supports ComReg's preliminary view to allow licensees flexibility in how they arrange their frame structures, recognizing the differing connectivity needs of the various use-cases. This should also extend to choice of technologies which may have fundamentally different frame structures that that based on 3GPP. DF has concerns, therefore, on ComReg's comment that it may suggest amendments to this proposal which creates uncertainty with regard to the use of other technologies in future. DF is strongly of the view that ComReg should ensure technology neutrality now and in the future and look to other mechanisms to manage coordination and coexistence which are neutral, e.g. power, frequency of use, rather than those which are technology specific. DF notes ComReg's preliminary view (in 6.147) 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. DF is of the view that the risk of interference into MFCN below 3.8 GHz from unsynchronised WBB LMP, especially for low power WBB, has been overstated – the DECT study in relation to MFCN coexistence in Section 7.2 of ECC Report 358 shows a low probability of interference from DECT at 3805 MHz of 1.76%, and this low probability of interference seems to be reflected in real-world WBB LMP deployment. Consequently DF is of the view that the need to assign licences that can synchronise with MFCN is unnecessary (and may be impracticable given the comments below). Further comments on synchronisation are given below. The requirement for synchronisation is contrary to the principle of technology neutrality and reduces the value of the 3.8-4.2 GHz band for private local connectivity.

	As noted in ECC Report 296, the possible regulator choice for a "preferred frame structure" could lead to problems in terms of compliance with the technology neutrality principle if the chosen format would not be supported by some candidate TDD technology for the band. The assumption on synchronisation is that the technology in use for LMP will be 3GPP-based, particularly regarding synchronisation with MFCN below 3.8 GHz. This implicitly rules out any other technology. It is worth noting that synchronisation is non-trivial and may be impracticable in the real-world between LMP and MFCN. Synchronisation between operators not only requires an accurate time source and frame structure, but also an agreement on the frame start time. Such an agreement between operators needs to consider several complex factors such as cell size and guard period to account for the propagation time between the interfering base station and the furthest base station that might be affected. Also, as highlighted in ECC Report 296, compatible frame structures can be renewed over time, subject to agreement between operators – how would this affect LMP operators? DF notes that the 3.8-4.2 GHz band has been in use in the UK for some time operating with a 5 MHz guard band to MFCN (for both low and medium power WBB) with no reported cases of interference. Plum asserts, with no evidence, that this is probably because LMP networks are, by default, synchronized with the same frame structure as users below 3.8 GHz. Given the requirement for frames to start at precisely the same time and that the size of the relevant synchronized cells and hence the guard period need to be known it is probably less likely that networks are synchronized than Plum suggests. This indicates that the risk of interference from WBB LMP to MFCN as suggested in ECC Report 358 may be greater than what exists in the real world where no cases of interference to MFCN appear to have been recorded. Also, on the assumption that all base station receivers (both FDD and TDD) across all the MFCN bands have similar performance characteristics, there are no other instances where a 20 MHz guard band is required to protect MFCN from adjacent low power use, or a 60 MHz guard band for higher-powered use. Further, synchronisation does not mitigate base-to-terminal or terminal-to-base interference. While it may be reasonable for BS-to-BS to be the dominant interference scenario in public mobile networks where base stations (particularly macro cells) are above the clutter, it should not be assumed that this will be the case for WBB LMP where network layouts will likely be

	significantly different to those of MFCN – this is an example where conclusions on WBB LMP are based on MFCN assumptions.
Licence duration	No comment
Rollout and usage obligations	No comment
Fees	No comment
Application process	No comment
Other issues (Applicant coordination with existing licensees)	In relation to applicant coordination with existing licensees, DF is of the view that this is difficult to achieve in practice unless there is some form of regulatory obligation for existing licensees to engage with new entrants. An existing licensee has no incentive to engage with a new entrant and may not have the skills to do so. Costs may be incurred by the existing licensee in contracting a third-party to manage any negotiation and may need to reconfigure their networks to something that is sub-optimal.
Other issues (Equipment to operate across the full band)	DF 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.
Other issues (Licensing of apparatus (base station and terminal stations)	DF supports the proposal that a licence would cover all apparatus, however, as mentioned previously, 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.
Other issues (Mobile network codes)	DF highlights that for DECT-2020 NR mobile network codes are not required. Consideration of MNCs, therefore, is only a concern for those specific technologies where this is required. DF suggests that any technical or operational requirements in the licence do not stipulate or imply a requirement for MNCs.

DECT Forum would like to thank ComReg for the opportunity to respond. We remain available to discuss any of the points raised in our response or to provide further information on DECT-2020 NR.

Respectfully submitted,

Martin Brock
Chair, Regulatory Working Group, DECT Forum

On behalf of the DECT Forum
22nd August 2025

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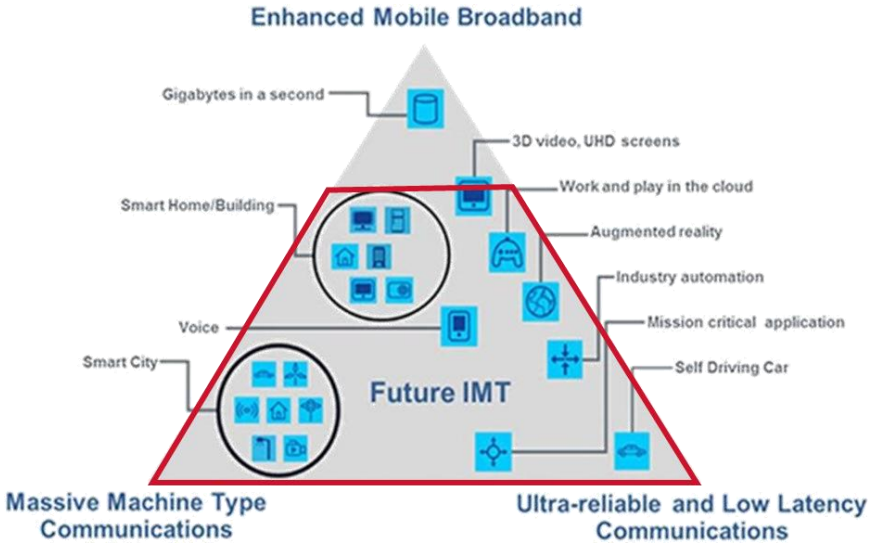
Annex: Overview of Digital Enhanced Cordless Telecommunications (DECT)

DECT, as both a technology standard and applications, has been in existence since the mid-1980s. From then to now the DECT standard has developed and evolved to the latest iteration of the standard, DECT-2020 New Radio (also referred to as NR+).

NR+ is recognised by the ITU as an IMT-2020 (5G) technology and is referenced in Recommendation ITU-R M.2150-1.[6] NR+ has been designed to meet the 5G requirements for massive Machine Type Communications (mMTC) and Ultra-Reliable and Low Latency Communications (URLLC). This makes NR+ a viable technology for local area connectivity for a wide range of vertical and enterprise communication requirements.

Figure 1: NR+ for mMTC and URLLC



NR+ applies similar design principles as in DECT family of standards, especially the inherent feature of automatic interference management without extensive frequency planning which can be deployed anywhere, by anyone, at any time. The autonomous, frequency agile operation of NR+ devices using polite protocols support multiple co-existing networks within a shared spectrum environment and network configurations, e.g. point-to-point, star and mesh topology networks. This flexibility and agility, especially within a mesh network, means that the assumptions for a traditional cellular base-station to user equipment configuration do not apply.

An NR+ device can assume one of three roles within a network:

- Sink node: this is the gateway between the back-end network (e.g. the internet) and the NR+ network.
- Leaf node: the end point of the NR+ network.
- Relay node: extends the network by routing messages to other devices or clusters.

All NR+ devices are the same, i.e. there is no 'base station' equipment or 'user device' equipment. Devices within an NR+ network can dynamically change their roles depending on the network's needs. Consequently, when assessing the licence conditions, there is an overarching issue in

[6] Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-2020 (IMT-2020)

interpretation of ‘base station’, ‘terminal’ and ‘connecting’ (in relation to a terminal connecting to a base station).

With regards to the technical characteristics of NR+, these are largely aligned with classic DECT; a maximum EIRP of 23 dBm, with channel bandwidths based on 1.728 MHz e.g. 1.728, 3.456, 6.912 up to 221.184 MHz.

NR+ can be considered both a competing technology to 3GPP standardised technology and complementary to it, for example, a sink could link to a 3GPP mobile wide area network to backhaul data from leaf devices to a distant location.

NR+ is designed for large-scale deployments, and its affordability in terms of infrastructure, installation, and maintenance costs. Infrastructure connectivity costs are minimized by subscription-free radio and sharing the back-end connection costs between all devices. Installation is streamlined for zero-touch automatic network joining. Maintenance is minimized by self-organizing mesh networking. In parallel, enterprises benefit from the independence of a reliable private network operating in dedicated spectrum. With its self-healing and self-organizing properties, networks avoid congestion issues and single points of failure.

This unique combination of features sets NR+ apart from other proprietary and standardized radio technologies, offering a future-proof solution that scales across various industrial needs.

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Aug 21, 2025

Commission for Communications Regulation
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Reference: ComReg 25/45

To whom it may concern:

Druid Software welcomes the opportunity to respond to ComReg's document 25/45 **Proposed licensing regimes for Private Mobile Radio (PMR) and Low & Medium Power Wireless Broadband Systems (WBB LMP)**.

Druid Software, founded in 2000 and headquartered in Bray, Co. Wicklow, is a leader in private cellular network technology, providing highly scalable 4G and 5G core network solutions. Over the years Druid has built a strong track record in meeting the requirements of different market segments for robust, high-quality mobile core networks worldwide.

Our solutions, built on 3GPP standards, power mission-critical use cases across government, public safety, healthcare, transportation, utilities, industries and enterprises.

With this expertise and innovative outlook, Druid Software is committed to bring practical insights from global deployments to support the decisions in these consultations which directly shape Ireland's competitiveness, innovation capacity and ability to attract investments.

Yours sincerely,

Signed by:
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Tadhg Kenny
President of Global Strategic Partnerships & Marketing
Druid Software

Druid

Submission to ComReg on the Proposed Local-Area Licensing Framework for Private 5G

Executive Summary

Ireland needs a predictable, low-friction local-area spectrum regime if it is to capture the productivity and export benefits of industrial 5G for the multi-national sector and our indigenous technology companies. The number and variety of companies that commented on Comreg's plans for licensing private networks in 2024 can leave no ambiguity concerning the strong latent demand for such spectrum.

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.

However, based on our knowledge of similar licensing frameworks across the EU and beyond, we feel that the proposed framework as described in Comreg document 25-46 can be improved by making adjustments in six particular areas. These suggested adjustments, we believe, will drive uptake and increase innovation in Irish and Ireland-based companies by (i) providing certainty on cost and duration of licenses, (ii) minimizing administrative overhead for both Comreg and licensee companies and (iii) ensuring the allocation of the appropriate amount of spectrum to each licensee.

The suggested adjustments are as follows

#	Topic/ section	Comreg Proposal	Adjustment	Rationale	Int'l precedent
1	**6.4 Power**	License low and medium power base stations in line with Table 1 of Annex 1 of the ECC Decision (24)01 (see sect 6.4.2)	Permit medium-power in urban areas with synchronisation or neighbour MoU	Enables outdoor coverage at ports, airports, large campuses	Ofcom medium-power, DE campus
2	**6.6 Bandwidth**	Applicants ..to provide detailed rationale and plans for the requested bandwidth to provide the services it needs [and] periodically report	Authorise full 3.8-4.2 GHz & 24.25-27.5 GHz now Provide an initial minimum of 100	Encourages innovation and experimentation with new devices types	UK/DE models

#	Topic/ section	Comreg Proposal	Adjustment	Rationale	Int'l precedent
		actual usage (sect 6.62)	Mhz per applicant to be reviewed based on usage		
3	**6.8 License duration**	One year licenses.."Licensees would then be required to apply annually thereafter for the licence to be re-issued" (sect 6.94)	Licence term: ≥ 10 years or 'until surrendered'	A one-year license, even with a tacit understanding on reissue, does not provide the certainty and clarity required for significant investment in network equipment	UK: perpetual *Shared Access*; DE: 5-20 yrs
4	**6.9 Rollout and usage**	ComReg is of the view that a 6 month time period would be appropriate for a WBB LMP framework	Roll-out window ≥ 24 months, phased activation allowed	6 months is the lowest end of international practise and does not allow time to purchase, import and install equipment. Equipment will typically not be ordered until a license is issued.	USA: 24 months DE: 12 months
5	**6.10 Fees**	See sect 6.10.2	Comreg to publish a fee table based on the principles in 6.10.2 as part of the proposed process	Gives CFOs immediate cost visibility	UK £80 / 10 MHz; DE: simple formula to estimate costs
6	**6.11 Application process**	See sect 6.11.2, 6.11.3	Provide a timeline for approval / rejection of applications i.e. applications will be processed within X days. Technical assessment for renewals should be a simplified one-page self-declaration	Provides clarity to applicants on overall project timelines Cuts OPEX for SMEs; audits on demand	UK/DE models

Section refers to the section in Comreg document 25_46.

Druid

1 Strategic Context

- Private 5G (non-public networks, NPNs) is widely accepted as the communications technology that underpins **AI-driven machine vision, digital-twin feedback loops, AR maintenance and autonomous logistics**. OECD estimates productivity uplifts of 4–6 % in advanced manufacturing where deterministic wireless replaces Ethernet and Wi-Fi. To stay at the forefront of FDI environments for global MNC companies in pharma and advanced manufacturing, as well as fostering the growth of native Irish technology companies, Ireland should join the 12 European countries as well as UK, USA, China Brazil and other regions that enable private networks
- The UK has issued **>1 600 Shared-Access licences** across four bands; Germany counts **>430 campus networks**. Both cite spectrum availability as a key accelerator of R&D spend and FDI.
- Ireland is already a hot-spot of innovation in Private 5G with Enterprise-Ireland supported companies including **Benetel, Druid Software, Aspire, SRS and others** having established themselves internationally as leading companies in aspects of private 5G. Providing those companies with a domestic market and local reference sites will greatly enhance their ability to compete globally.

2 Key Concerns with the Current Proposal

1. **12-month licence horizon:** The one-year license term is a significant deterrent to any company. The investment costs in deploying a private network are too great, and the impact of integrating the technology into operational processes then losing a license, are too great for any CFO or CEO to sign off on deploying private 5G. A longer term, with requirements to “use it or share it” will achieve the same objectives of preventing spectrum hoarding while also giving applicants the certainty they require.
2. **Fees:** While we appreciate and agree with the principles around fee setting stated by Comreg, proposing a framework, fee table or equation would allow stakeholders to consider and comment on this aspect more accurately and avoid budget risk.
3. **Six-month roll-out obligation:** 6 months is the lowest roll-out time proposed by any similar scheme internationally, and for good reason. This proposal is incompatible with phased plant upgrades and regulatory gating (HAZOP, GMP, etc.) and ignores current lead times for radio equipment in this band. It creates a situation where applicants may have to order equipment *before* applying for a license in order to have it delivered and installed within 6 months of license grant.
4. **Annual re-application & detailed RF dossier:** The proposed structure would impose a permanent compliance project on the licensee, entirely different to that

using Wifi, and disproportionate to interference risk. This would increase cost and possibly deter investment.

5. **Medium-power discouraged in cities:** We note that medium power licenses are allowed in cities and urban environments in Germany, a far more densely populated country than Ireland. The restriction on medium power makes large outdoor facilities (large pharma campuses, logistics facilities (Plum: 500 m low-power reuse, 22 km unsynchronised medium-power) cripples large outdoor sites
6. **Limited mmWave slice:** The proposal to license only part of the MMwave spectrum (24.25-24.745 GHz only) would isolate Ireland from the global 26 GHz device ecosystem, making it difficult and expensive for companies in Ireland to source appropriate hardware and ultimately deterring adoption.

3 Comparison with UK & Germany

Feature	Ireland (proposed)	UK – Ofcom	Germany – BNetzA
Term	1 yr renewable	Indefinite	5–20 yrs (10 yrs norm)
Fee (100 MHz, 1 km², 10 yrs)	TBD	£800 total	**€3-5 k**
Admin after deployment	Annual re-apply + ful RF update	Pay invoice; update log on request	No renewal; ad-hoc audits
Urban medium-power	Discouraged	Standard	Allowed with boundary field-strength mask
Bands	3.8-4.2 & 24.25-24.745 GHz	1.8 / 2.3 / 3.8-4.2 / 26 GH z	3.7-3.8 & 24.25-27.5 GHz

The divergence translates directly into **higher deployment cost, longer lead-times and reduced investor confidence** for Irish projects.

4 Detailed Recommendations

4.1 Licence Duration & Certainty

- Grant licences for **an initial term of 10 years** with automatic renewal subject only to payment of the annual fee and basic compliance.
- Add a **“use-it-or-share-it” clause**: after 12 months at least one device must be operational; thereafter revocation only if spectrum lies fallow for >24 months.

4.2 Fee Framework

- Publish a **fixed tariff** based on administrative cost recovery: *€80 per 10 MHz per annum for 3.8-4.2 GHz* and *€80 per 100 MHz per annum for 26 GHz*, indexed to CPI.

- Offer rural discount (0.4 × tariff) for sites > 5 km from towns of 30 000+ population.

4.3 Administrative Optimisation

- Replace annual re-application with a **one-page self-declaration** confirming contact details and site list; detailed RF file only on material change or interference complaint.
- Establish an **online self-service portal** mirroring Ofcom's Shared Access portal.

4.4 Roll-out & Coverage Obligations

- Extend mandatory activation period to **24 months** with interim milestones at 12 months (50 % of carriers live).
- Allow staged area build-out matching OT maintenance windows.

4.5 Power Limits & Coexistence

- Ensure sufficient power is available to licencees to meet network requirements for industrial indoor and outdoor environments.
- Permit **medium-power (≤ 30 dBm/5 MHz EIRP) in urban areas** if licensee either (a) synchronises TDD framing with neighbours, or (b) signs a simple Memorandum of Understanding.
- Adopt a **coordination distance grid** (e.g. 2 km medium-power, 200 m low-power) rather than absolute exclusion zones.

4.6 Band Plan

- Licence the **full 24.25-27.5 GHz** range for indoor use alongside 3.8-4.2 GHz to align with 3GPP n257/n258 and ensure commonality with requirements with other EU countries such as the same radio hardware can be used across Europe.

5 Economic Impact of the Proposed Adjustments

Scenario	10-year NPV of spectrum fees (100 MHz)	Compliance man-days (10-yr)	Probability-adjusted ROI on €2 m private-5G project
Current proposal	Unknown – worst-case auction	~220 (annual renewals, tech schedules)	6 % (below hurdle)
With our adjustments	**€8 000**	**30**	**19 %** (meets manufacturing hurdle)

Result: **€ 0.9 bn additional private-sector 5G capex** over 2025-30 and a **€ 2.5 bn productivity gain** (assuming 4 % uplift on € 62 bn of advanced-manufacturing GVA).

6 Conclusion

By adopting the six adjustments set out above, ComReg can deliver a local-area licensing regime that:

- **Matches global best practice** on fee certainty, licence longevity and efficient administrative framework
- **Unlocks immediate investment** with Irish manufacturers and technology suppliers
- **Retains Ireland's competitive edge** in 5G core, RAN and application innovation.

Thank you for our consideration of these proposals.

European Users Wireless Enterprise Network Association

Date: 19 August 2025

To: Commission for Communications Regulation (ComReg)
Re: Consultation on Proposed Licensing Regimes for Private Mobile Networks (ComReg 25/46)

1. Who We Are

EUWENA is the European Users Wireless Enterprise Network Association with over 50 member associations and end users, founded in April 2021 to accelerate the adoption of feature-rich private mobile networks across Europe (euwena.eu). Our mission is to advocate for sufficient, accessible, affordable, and harmonised spectrum and promote an open, multi-vendor ecosystem for private 4G/5G networks. We represent enterprise users and stakeholders across verticals and countries, aiming to create sustained value for enterprises and society.

As part of our spectrum work, EUWENA publishes an annual Licensed Spectrum Repository, now in its 2025 edition. This repository includes detailed data on private network licensing conditions across Europe and North America.

2. General Position

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.

A truly functional cross-European private network ecosystem requires national frameworks that align with each other, minimise friction in vendor supply chains, and support enterprise adoption across borders.

3. Key Recommendations

A. Harmonised Band Planning & Bandwidth Availability

EUWENA believes that Ireland should allocate larger, contiguous blocks of spectrum, ideally the full 3.8–4.2 GHz band, so that enterprises can take advantage of international standards and equipment availability. At the same time, public and private use in the 26 GHz range should be clearly aligned, with flexibility maintained to expand private access as demand for mmWave grows.

B. Transparent, Predictable Licensing

Licensing should be transparent and predictable. Fees must be based purely on administrative cost recovery, with flat tariffs published upfront to provide enterprises with certainty. These charges should reflect only the regulator's administrative costs, avoiding scarcity-based pricing for local use.

To encourage regional innovation, ComReg should also consider a rural discount mechanism, allowing companies outside Ireland's larger towns to benefit equally. Aligning Ireland's fee structure with other European regimes would also ease supply-chain integration and accelerate adoption.

C. Licence Duration & Stability

In terms of licence duration, EUWENA recommends 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. Rollout obligations should also be phased, with enterprises allowed eighteen to twenty-four months for deployment and only light-touch milestone reporting during that period.

D. Economic & Strategic Impact

Finally, EUWENA strongly supports the development of an open, multi-vendor private network ecosystem. This approach reduces the risk of vendor lock-in and strengthens the role of European suppliers, particularly if supported by transparent licensing and harmonisation across EU member states. A regime that delivers predictability, affordability, and fairness will reinforce European telecom sovereignty, attract foreign investment, and help enterprises

scale. EUWENA's spectrum repository can serve as a valuable benchmarking tool in guiding these decisions.

4. Why EUWENA's Voice Matters

As a pan-European users' association, EUWENA brings a multi-country, multi-sector perspective, rooted in experience and empirical data, that complements local inputs. Our aim is not to duplicate national supplier submissions but to ensure Ireland's regime integrates into a broader European framework.

Our cross-border approach helps identify gaps, enhance interoperability, and support ComReg's ambitions while aligning with EU policy.

5. Conclusion

EUWENA supports ComReg's initiative to liberalise spectrum for private mobile networks in Ireland. To unlock true value, licensing must be predictable, affordable, harmonised, and tailored to enterprise realities.

We urge ComReg to adopt the above recommendations to complement national goals and strengthen EU-wide alignment. We remain ready to provide further data or participate in working groups.

Yours sincerely,

On behalf of the EUWENA

Antoine van der Sijs

Secretary EUWENA

Submission to ComReg on the Proposed Local-Area Licensing Framework for Private 5G

Executive Summary

Ireland needs a predictable, low-friction local-area spectrum regime if it is to capture the productivity and export benefits of industrial 5G for the multi-national sector and our indigenous technology companies. The number and variety of companies that commented on Comreg's plans for licensing private networks in 2024 can leave no ambiguity concerning the strong latent demand for such spectrum.

We at ADI are leading innovation around industrial connectivity, where we have several testbeds in operation in our state-of-the-art collaboration centre in Limerick, the Catalyst. We have deep engagements with several large manufacturing companies in Ireland across the Pharmaceutical and medical device ecosystem. These include Medtronic, Boston Scientific, Stryker and J&J. We also collaborate with local companies involved in the 5G ecosystem such as Benetel and Druid Software who collaborated with us on this submission.

All are agreed on the how private 5G can drive innovation and efficiency improvements in manufacturing plants and can ensure Ireland remains a competitive environment for future manufacturing investment. However, the current framework for obtaining licenses is not fit for purpose

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.

However, based on our knowledge of similar licensing frameworks across the EU and beyond, we feel that the proposed framework as described in Comreg document 25-46 can be improved by making adjustments in six particular areas. These suggested adjustments, we believe, will drive uptake and increase innovation in Irish and Ireland-based companies by (i) providing certainty on cost and duration of licenses, (ii) minimizing administrative overhead for both Comreg and licensee companies and (iii) ensuring the allocation of the appropriate amount of spectrum to each licensee.

The suggested adjustments are as follows:

Table 1: Suggested Adjustments

#	Topic/ section	Comreg Proposal	Adjustment	Rationale	Int'l precedent
1	**6.4 Power**	License low and medium power base stations in line with Table 1 of Annex 1 of the ECC Decision (24)01 (see sect 6.4.2)	Permit medium power in urban areas with synchronization or neighbour MoU	Enables outdoor coverage at ports, airports, large campuses	Ofcom medium-power, DE campus
2	**6.6 Bandwidth**	Applicants ..to provide detailed rationale and plans for the requested bandwidth to provide	Authorise full 3.8-4.2 GHz & 24.25-27.5 GHz now	Encourages innovation and experimentation with new devices types	UK/DE models

#	Topic/ section	Comreg Proposal	Adjustment	Rationale	Int'l precedent
		the services it needs [and] periodically report actual usage (sect 6.62)	Provide an initial minimum of 100 Mhz per applicant to be reviewed based on usage		
3	**6.8 License duration**	One year licenses.."Licensees would then be required to apply annually thereafter for the licence to be re-issued" (sect 6.94)	Licence term: ≥ 10 years or 'until surrendered'	A one-year license, even with a tacit understanding on reissue, does not provide the certainty and clarity required for significant investment in network equipment	UK: perpetual *Shared Access*; DE: 5-20 yrs
4	**6.9 Rollout and usage**	ComReg is of the view that a 6 month time period would be appropriate for a WBB LMP framework	Roll-out window ≥ 24 months, phased activation allowed	6 months is the lowest end of international practise and does not allow time to purchase, import and install equipment. Equipment will typically not be ordered until a license is issued.	USA: 24 months DE: 12 months
5	**6.10 Fees**	See sect 6.10.2	Comreg to publish a fee table based on the principles in 6.10.2 as part of the proposed process	Gives CFOs immediate cost visibility	UK £80 / 10 MHz; DE: simple formula to estimate costs
6	**6.11 Application process**	See sect 6.11.2, 6.11.3	Provide a timeline for approval / rejection of applications i.e. applications will be processed within X days. Technical assessment for renewals should	Provides clarity to applicants on overall project timelines Cuts OPEX for SMEs; audits on demand	UK/DE models

#	Topic/ section	Comreg Proposal	Adjustment	Rationale	Int'l precedent
			be a simplified one-page self-declaration		

Strategic Context

- Private 5G (non-public networks, NPNs) is widely accepted as the communications technology that underpins AI-driven machine vision, digital-twin feedback loops, AR maintenance and autonomous logistics. OECD estimates productivity uplifts of 4–6 % in advanced manufacturing where deterministic wireless replaces Ethernet and Wi-Fi. To stay at the forefront of FDI environments for global MNC companies in pharma and advanced manufacturing, as well as fostering the growth of native Irish technology companies, Ireland should join the 12 European countries as well as UK, USA, China Brazil and other regions that enable private networks

- The UK has issued >1 600 Shared-Access licenses across four bands; Germany counts >430 campus networks. Both cite spectrum availability as a key accelerator of R&D spend and FDI.

- Ireland is already a hot-spot of innovation in Private 5G with Enterprise-Ireland supported companies including Benetel, Druid Software, Aspire, SRS and others having established themselves internationally as leading companies in aspects of private 5G. Providing those companies with a domestic market and local reference sites will greatly enhance their ability to compete globally.

Key Concerns with the Current Proposal

1. **12-month licence horizon:** The one-year license term is a significant deterrent to any company. The investment costs in deploying a private network are too great, and the impact of integrating the technology into operational processes then losing a license, are too great for any CFO or CEO to sign off on deploying private 5G. A longer term, with requirements to "use it or share it" will achieve the same objectives of preventing spectrum hoarding while also giving applicants the certainty they require.
2. **Fees:** While we appreciate and agree with the principles around fee setting stated by Comreg, proposing a framework, fee table or equation would allow stakeholders to consider and comment on this aspect more accurately and avoid budget risk.
3. **Six-month roll-out obligation:** 6 months is the lowest roll-out time proposed by any similar scheme internationally, and for good reason. This proposal is incompatible with phased plant upgrades and regulatory gating (HAZOP, GMP, etc.) and ignores current lead times for radio equipment in this band. It creates a situation where applicants may have to order equipment *before* applying for a license in order to have it delivered and installed within 6 months of license grant.
4. **Annual re-application & detailed RF dossier:** The proposed structure would impose a permanent compliance project on the licensee, entirely different to that using Wifi, and disproportionate to interference risk. This would increase cost and possibly deter investment.
5. **Medium-power discouraged in cities:** We note that medium power licenses are allowed in cities and urban environments in Germany, a far more densely populated country than Ireland. The restriction on medium power makes large outdoor facilities (large pharma campuses, logistics facilities (Plum: 500 m low-power reuse, 22 km unsynchronised medium-power) cripples large outdoor sites
6. **Limited mmWave slice:** The proposal to license only part of the MMwave spectrum (24.25-24.745 GHz only) would isolate Ireland from the global 26 GHz device ecosystem, making it difficult and expensive for companies in Ireland to source appropriate hardware and ultimately deterring adoption.

Comparison with UK & Germany

Table 2: Comparison with UK & Germany

Feature	Ireland (proposed)	UK – Ofcom	Germany – BNetzA
Term	1 yr renewable	Indefinite	5–20 yrs (10 yrs norm)
Fee (100 MHz, 1 km², 10 yrs)	TBD	£800 total	**€3-5 k**
Admin after deployment	Annual re-apply + full RF update	Pay invoice; update log on request	No renewal; ad-hoc audits
Urban medium-power	Discouraged	Standard	Allowed with boundary field-strength mask
Bands	3.8-4.2 & 24.25-24.745 GHz	1.8 / 2.3 / 3.8-4.2 / 26 GHz	3.7-3.8 & 24.25-27.5 GHz

The divergence translates directly into **higher deployment cost, longer lead-times and reduced investor confidence** for Irish projects.

Detailed Recommendations

Licence Duration & Certainty

- Grant licences for **an initial term of 10 years** with automatic renewal subject only to payment of the annual fee and basic compliance.
- Add a **"use-it-or-share-it" clause**: after 12 months at least one device must be operational; thereafter revocation only if spectrum lies fallow for >24 months.

Fee Framework

- Publish a **fixed tariff** based on administrative cost recovery: *€80 per 10 MHz per annum for 3.8-4.2 GHz* and *€80 per 100 MHz per annum for 26 GHz*, indexed to CPI.
- Offer rural discount (0.4 × tariff) for sites > 5 km from towns of 30 000+ population.

Administrative Optimisation

- Replace annual re-application with a **one-page self-declaration** confirming contact details and site list; detailed RF file only on material change or interference complaint.
- Establish an **online self-service portal** mirroring Ofcom's Shared Access portal.

Roll-out & Coverage Obligations

- Extend mandatory activation period to **24 months** with interim milestones at 12 months (50 % of carriers live).
- Allow staged area build-out matching OT maintenance windows.

Power Limits & Coexistence

- Ensure sufficient power is available to licensees to meet network requirements for industrial indoor and outdoor environments.

- Permit **medium-power (≤ 30 dBm/5 MHz EIRP) in urban areas** if licensee either (a) synchronises TDD framing with neighbours, or (b) signs a simple Memorandum of Understanding.
- Adopt a **coordination distance grid** (e.g. 2 km medium-power, 200 m low-power) rather than absolute exclusion zones.

Band Plan

- Licence the **full 24.25-27.5 GHz** range for indoor use alongside 3.8-4.2 GHz to align with 3GPP n257/n258 and ensure commonality with requirements with other EU countries such as the same radio hardware can be used across Europe.

Economic Impact of the Proposed Adjustments

Scenario	10-year NPV of spectrum fees (100 MHz)	Compliance man-days (10-yr)	Probability-adjusted ROI on €2 m private-5G project
Current proposal	Unknown – worst-case auction	~220 (annual renewals, tech schedules)	6 % (below hurdle)
With our adjustments	**€8 000**	**30**	**19 %** (meets manufacturing hurdle)

Result: **€ 0.9 bn additional private-sector 5G capex** over 2025-30 and a **€ 2.5 bn productivity gain** (assuming 4 % uplift on € 62 bn of advanced-manufacturing GVA).

Conclusion

By adopting the six adjustments set out above, ComReg can deliver a local-area licensing regime that:

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Thank you for our consideration of these proposals.

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DAS & Private Networks Design Authority
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Guild Street, Dublin

Response to ComReg consultation on:

Proposed licensing regimes for Private Mobile Radio (PMR) and Low & Medium Power Wireless Broadband Systems (WBB LMP)

Reference: ComReg 25/45

Date: 22 August 2025

To whom it may concern:

Sigma Wireless welcomes this opportunity to respond to ComReg's document 25/45 **Proposed licensing regimes for Private Mobile Radio (PMR) and Low & Medium Power Wireless Broadband Systems (WBB LMP).**

Sigma Wireless is a systems integrator, headquartered in Finglas, Dublin, providing mission-critical communications since 1991. Our customer base covers a full range of communications users across practically all the vertical sectors from Government, public safety and utilities to healthcare, transport hubs, industries and enterprises. Whereas our traditional business focused on professional mobile radio systems (PMR) our company is increasingly engaged with customers on the next generation of solutions, especially private LTE and private 5G networks.

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Private 5G Networks and the 3.8-4.2 GHz Band

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.

As demonstrated by successful private network deployments in Europe and the USA, this spectrum is crucial for enabling innovative mobile solutions that drive efficiencies and improve business and safety operations. As well as benefitting existing businesses, the availability of such spectrum here will make Ireland an even more attractive destination for foreign direct investment.

Response to Proposed Licensing Regime:

Sigma Wireless welcomes the work ComReg is doing to make this band available for local-area private 5G networks, and especially the publication of the proposed licensing regime for WBB LMP. Sigma Wireless is pleased to offer the following commentary and suggestions relating to the proposed licensing regime.

6.5 Licensing and network planning approach for WBB LMP

In paragraph 6.49 it states: "*medium power base stations would not be licensed in the cities unless there are exceptional circumstances*".

Sigma Wireless is of the view that this policy would be unnecessarily limiting to the adoption and usefulness of WBB LMP services and will hinder otherwise viable deployments. Allowing the use of MP systems in cities in 'exceptional circumstances' suggests that too few MP systems might be permitted.

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There are many potential sites where fewer MP radios could provide coverage and service to the target area, rather than a larger number of LP radios. This might include outdoor areas such as campuses, ports, business parks, stadiums and sports grounds. Even in some indoor sites (large buildings such as arenas, theatres, warehouses, factories, etc) medium power radios may be a feasible solution. Many solutions might only be commercially viable with fewer MP radios, rather than more LP radios. Fewer MP radios may reduce costs of system design and planning, hardware & software costs, installation costs and O&M costs (compared to a solution with more LP radios).

Sigma Wireless suggest that guidelines could be issued by ComReg as to the appropriate use of LP or MP. This could include requiring a 'justification' of MP or presenting a comparison of solutions using LP and using MP radios to ensure both are considered.

As ComReg propose a "case-by-case" assessment of radio solutions for WBB LMP license applications, unnecessary use of MP systems could be detected and stopped at the assessment stage.

6.6 Bandwidth

Paragraph 6.62 proposes the following two controls:

1. *applicants would need to provide detailed rationale and plans for the requested bandwidth to provide the services it needs. The information to be submitted would likely need to include a description of the type of service being provided, the coverage area, the capacity requirement of the services, the number of users/ connected equipment etc; and*
2. *licensees would have to periodically report actual usage to ComReg. Should licensees not be utilising, in whole or in part, the licensed bandwidth, ComReg would retain the right to amend or withdraw the licence as appropriate.*

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Sigma Wireless suggest this may be unnecessarily complex and restrictive.
In a 4G or 5G system, the subcarriers of the channel bandwidth only transmit when needed. If there is no traffic on the cell, only reference (or pilot) subcarriers are transmitted. These subcarriers only occupy a very small fraction of the available bandwidth and the vast majority of the subcarriers of the channel will not be active. If there is some active traffic on the cell (e.g. a voice call or video call), then only the subcarriers needed to support that traffic will be in use. And if, for example, there is a large file to download then all subcarriers of the channel may be used, but only for a relatively short period of time. E.g. if a 100 MHz channel were fully used for 1 second for a file download, then a 10 MHz channel might be fully used for 10 seconds (approximately) for the same file download.

In effect, the bandwidth usage is 'elastic'. Assigning larger channel bandwidths is not necessarily inefficient spectrum use and it is certainly less complex. It is not always practical or possible to know the traffic demands or usage profiles before deployment, and in the early stages of WBB LMP deployments, use cases and user demands may be changing rapidly. Tt would be preferable not to revise the licence as the capacity needs change.

An alternative approach would be to offer a range of different channel bandwidths (100 MHz, 50 MHz, 20 MHz or 10 MHz), with more flexibility of design and for the lower bandwidth license requests (such as MP usage).

6.7 Synchronisation

Coexistence with WBB ECS below 3.8 GHz

Paragraph 6.73 notes *"that the current draft recommendation from FM60 identifies that synchronisation is necessary in the lower 20 MHz (3800-3820 MHz) and for medium power use in the lower 60 MHz (3800-3860 MHz)"* and paragraph 6.74 states that *"should a licensee*

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propose a frame structure compatible with the default frame structure, ComReg would assign the rights of use in the lower part of the band".

Sigma Wireless suggest that all of the lower 100 MHz of the WBB LMP band (3800 to 3900 MHz) be reserved for licences synchronised with the WBB ECS band. This would prevent the scenario of unsynchronised use of the 3860-3900 MHz band and ensure up to a 100 MHz channel is available for a synchronised channel licence, maximising spectrum efficiency.

6.8 Licence Duration

In paragraph 6.94, ComReg proposes that:

> *"... 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. 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 required duration."*

The concept of an annual license application (or even an annual renewal) will make the spectrum availability seem less certain to potential customers and end users. This will negatively affect their evaluation of the overall solution and its financial viability as an investment.

Sigma Wireless strongly suggest that ComReg consider a minimum 10-year license. The same fees could be applied, paid annually. Licensees would still have to remain technically compliant with the licence conditions. This could include an annual compliance statement to ComReg. ComReg would still, of course, retain all its rights of early termination as currently proposed.

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Allowing a 10-year licence in this way would minimally change the actual conditions or entitlements of the licence but would make it considerably more attractive to the end user and allow the system to be viewed as a long term viable and secure business solution.
This approach is aligned with international precedents: Ofcom's Shared Access licences (indefinite) and Germany's 5 to 20-year campus licences.

6.9 Rollout and usage obligations

As presented in paragraph 6.108, ComReg are proposing a 6-month base station rollout obligation and a 6-month spectrum usage obligation. These timelines might be difficult to achieve in many cases.

For example, a customer might be unwilling to place an order for 5G network equipment unless the spectrum licence is secured (i.e. a WBBLMP license is granted). In some cases, a customer may even request licence certainty before committing to the costs and resources of a system design. This is further compounded as the type of licence (MP or LP, channel bandwidth, etc) will dictate the system design.

Secondly, there may be a long lead times (12 to 16 weeks is not unusual) for equipment delivery, and again for deployment scheduling (which may be dependent on other operational or budgetary considerations of the business).

Although ComReg does provide for exceptional cases in paragraphs 6.109 and 6.110, Sigma Wireless suggest a rollout and spectrum usage period of 18 months as standard with an obligation on the licensee to report and demonstrate progress is being made, at regular intervals of 6 months.

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Again, Sigma Wireless is very pleased to see the progress being made by ComReg for the WBB LMP licence regime, and we offer the above comments and suggestions in the interest of having an optimum solution for use of this band which will ensure success for years to come.

Kindest regards

Paul Donnelly

Sigma Wireless, DAS and Private Networks Design Authority

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21 August 2025

Dear ComReg,

Reference: Submission to ComReg Consultation 25/46: Proposed licensing regimes for Private Mobile Radio (PMR) and Low & Medium Power Wireless Broadband Systems (WBB LMP) – Open Consultation

Shure UK Ltd would like to thank ComReg for the opportunity to respond to its consultation. Earlier this year Shure celebrated its 100th anniversary and we remain at the forefront of innovation in wireless PMSE audio equipment.

Overall, we welcome ComReg's proposals regarding PMSE licensing. As ComReg notes, following Covid-19, there has been a strong and sustained recovery in PMSE and the events it underpins.[1] Economic growth in the Cultural and Creative Industries now outstrips that of most other sectors. Shure is supportive of any measures which recognise and safeguard the socio-economic contribution made by PMSE. To that end, two of ComReg's proposals are particularly welcome.

The first is the proposal to maintain a distinct licensing framework for PMSE, separate from the consolidated PMR licence, in recognition of the sector's unique requirements, notably the variety of frequency bands used, the range of equipment and the non-uniform duration of use (dependent on each event or venue). The second is the removal of the equipment charge currently attached to PMSE licences, which is unwieldy and inefficient for PMSE event planning, and as ComReg notes, adds unpredictability to costs for users.

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 (WMAS).[2] WMAS has been designed to offer increases in efficient use of spectrum, alongside flexibility and ease of deployment for PMSE users. It employs wideband modulation techniques which support the transmission of multiple audio channels in one single wideband RF channel, which can be scaled to make use of contiguous bandwidths of up to 20 MHz. WMAS has been incorporated within the ETSI EN 300 422 harmonised standard for wireless microphones for several years, which is referenced by regulators all over the world, including CEPT administrations, the U.S. FCC and Canada's ISED.

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.

Finally, Shure has played a prominent role in our industry's efforts to safeguard access to the principal audio PMSE spectrum resource in 470 – 694 MHz, critical to the future of PMSE. Shure will respond

[1] See EY's Rebuilding Europe report of January 2021: https://www.rebuilding-europe.eu
[2] Paragraph 4.30 (p.62) of ComReg25/46 (…channel sizes are general bandwidths and ComReg will consider other bandwidths for PMSE on a case-by-case basis). The Maximum Channel Bandwidth of 200 kHz is shown in Annex 2 (p.23) of ComReg's Guidance Notes for PMSE use in Ireland, ComReg 08/08R7.

shortly to the RSPG's 'Call for Comments' regarding the future of the band, but should ComReg wish to discuss this, or any of the points raised above, we remain available at your convenience.

Yours sincerely,

Martin Brock
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