



An Coimisiún um  
**Rialáil Cumarsáide**  
Commission for  
**Communications Regulation**

# Submissions to Document 22/93

## Submissions to Consultation 22/93

**Reference:** ComReg 23/61s

**Date:** 04/07/2023

## Submissions Received from Respondents

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Consultation:	20/109
Consultation and Response to Consultation:	21/134
Further Consultation, Response to Consultation and Draft Decision including Draft Regulations	22/93

# Content

Section	Page
1 Inmarsat .....	4
2 Siklu.....	7

# 1 Inmarsat



9 December 2022

Commission for Communications Regulation,  
One Dockland Central, Guild Street,  
Dublin, D01 E4X0.

Submitted electronically to [marketframeworkconsult@comreg.ie](mailto:marketframeworkconsult@comreg.ie)

**RE: Written Comments of Inmarsat to ComReg Ireland Consultation on the Review of the Fixed Radio Links Licensing Regime (Document 22/93)**

Dear Sir/Madam:

Inmarsat is pleased to have the opportunity to comment on ComReg's *Consultation on the Review of Fixed Radio Links Licensing Regime (Document 22/93)* published in November 2022.

### **Introduction and General Comments**

Inmarsat is a leader in global mobile satellite communications, operating a system of 14 satellites that provide communications solutions to customers on land, in the air, and at sea. The company has a long track record of operating reliable global mobile satellite communications networks, sustaining business applications and mission-critical safety and operational applications globally. Inmarsat recently announced the rollout of ORCHESTRA - a unique, global, multi-dimensional, dynamic mesh network that will support the growing demand for mobility worldwide with high average speeds and low average latency. In the largest-ever transformation of Inmarsat's market-leading services, Orchestra will provide a seamless integration of Inmarsat's ELERA (L-band) and Global Xpress (GX, Ka-band) networks with terrestrial 5G, targeted low earth orbit capacity, and dynamic mesh technologies, to create a single advanced solution for global mobility.

The "European Aviation Network" (EAN) is operated by Inmarsat in partnership with Deutsche Telecom throughout Europe, providing high quality broadband In-Flight Connectivity (IFC) for aircraft passengers. This pioneering network, built by Europe for Europe, is operated through our S-band Europsat satellite, launched in 2017 and is located at 39E, together with over 300 complementary ground components. Inmarsat is actively investigating other opportunities to expand the use of the EAN system in many areas including UAVs.

### **Specific Comments**

We note that in section 3.3.10, the consultation document refers to possible future use of the 1.4 GHz band for wireless broadband and/or MFCN. In this regard, we take the opportunity to highlight that any use of the band 1492-1518 MHz (the "upper 1.4 GHz extension band") by terrestrial mobile systems will require the implementation of compatibility measures to protect Inmarsat MSS operations in Ireland. The adjacent band, 1518-1559 MHz, is used by Inmarsat MSS terminals to receive signals from geostationary satellites.

Protection of the MSS terminals used in ports/waterways and at airports will require protection measures such as power flux density limits contained in CEPT ECC Report 299. However, use of the 1.4 GHz centre band only (1452-1492 MHz) for new terrestrial systems would avoid the need for implementation of complex compatibility measures. Hence ComReg might prefer to keep any use of terrestrial mobile systems to this band 1.4 GHz centre band. This is an approach that has



already been implemented by several other European regulators (e.g. Germany, Netherlands). However, if ComReg does wish to consider the introduction of mobile systems in the upper 1.4 GHz extension band, Inmarsat would wish to engage with ComReg at an early stage to ensure that adequate compatibility measures with respect to MSS operations are developed and applied.

## **Conclusion**

Inmarsat appreciates this opportunity to contribute to ComReg's Consultation on the Review of the Fixed Radio Links Licensing Regime. Inmarsat would be pleased to engage further to answer questions or discuss the details of the proposals.

Respectfully,

By: /s/ Francesco Toschi

Francesco Toschi  
Senior Director, Market Access

Paul Deedman  
Director, Spectrum Regulation

## 2 Siklu

# Siklu's Response to: ComReg's Review of the Fixed Radio Links Licensing Regime

(ComReg 22/93)

09/12/2022 ver01





## About Siklu

Siklu Communications is a leading global vendor for fixed terrestrial radios operating in 60/70/80GHz. Well over 200,000 of our E-band and V-band radios are installed globally, including in Ireland.

## About Siklu's Response

Siklu would like to thank ComReg for the opportunity to comment on its Review of the Fixed Radio Links Licensing Regime (ComReg 22/93). We would like to address a specific point relating to the large increase in licence fee, which ComReg is proposing in E-band (80GHz band).

## The Case for affordable 2GHz channel in E-band (80GHz)

E-band (the 80GHz band) is unique, in that:

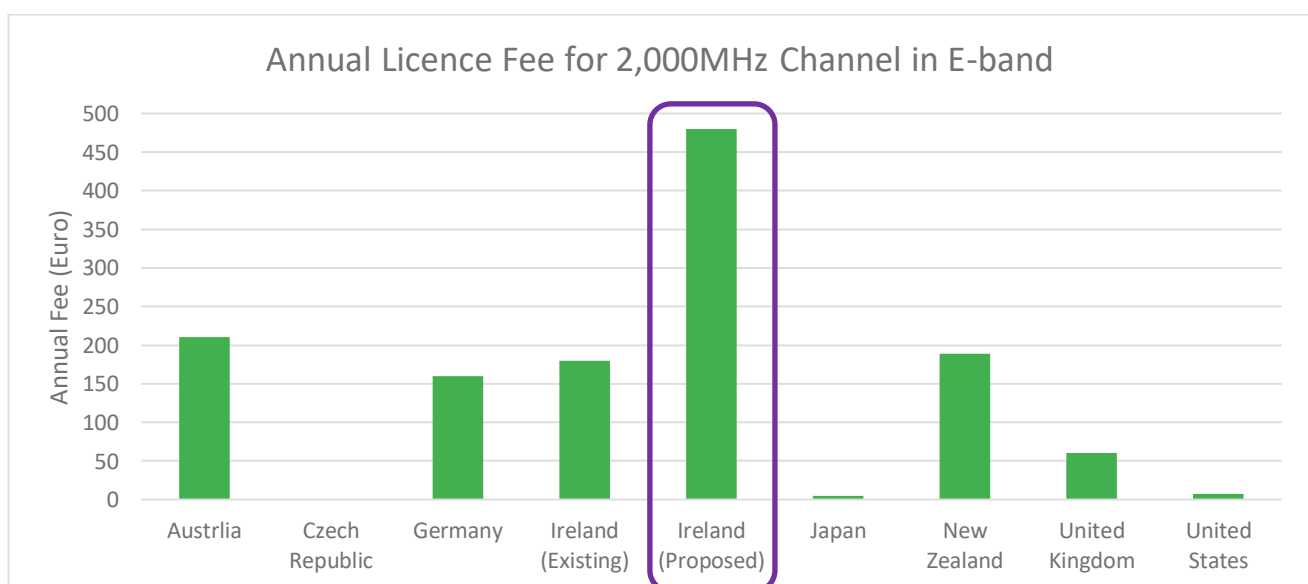
- It is **the only fixed terrestrial band capable of supporting fibre data-rates** over the air. Specifically, radios are readily available capable of 10Gbps over a 2,000MHz channel, and even 20Gbps over the same channel (in a dual-polarity, co-channel arrangement).
- It is inherently immune to interference, with excellent frequency reuse, due to the exceptional high degree of antenna (spatial) filtering.

For these reasons, E-band can (and does in many countries) provide an inexpensive, reliable, and fast alternative to fibre.

Accordingly, Siklu believes it is in Ireland's interest to ensure access to this spectrum (and thereby an inexpensive, reliable and quick fibre alternative) remains within popular reach. The current annual licence fee for a 2,000MHz channel in Ireland is indeed affordable: €150 (or €180 in congested areas).

However, **Comreg** is now **proposing to increase this approximately threefold**: to €480 per annum. Siklu believes this will cost-out many who will not be able to afford it. Specifically, those who do not have access to wired connectivity solutions (such as the national fibre program, which is lagging far behind schedule), will leave many without access to fast and reliable broadband connection.

In its Consultation document, ComReg has made an elaborate case for the proposed fee increase, citing multiple Consultants' reports and previous consultations. Frankly, we find it challenging to follow the details of this complex narrative. However, the bottom line is clear: **the proposed increase will result in one of the highest fees compared to other developed countries**. No doubt, an inadvisable position to be in. This is illustrated in the following diagram and table.





## Annual Licence Fees for a 2,000MHz-wide channel in E-band

Country	License Fees	Equivalent fee in Euros, per year, averaged over 5 years
Australia	Issue charge <sup>1</sup> : \$471 AUD Annual tax: \$236 per pair of spectrum accesses	€ 210 (\$330)
Czech Republic	Free <sup>2</sup>	€0
Germany	Annual fee <sup>3</sup> : € 160	€ 160
Japan	First time registration fee <sup>4</sup> : ¥ 2,550 JPY Registration fee (every 5 years) <sup>4</sup> : ¥ 1,500 JPY Annual licence fee <sup>5</sup> : ¥ 400 JPY	€ 5 (¥ 700)
New Zealand	Annual fee <sup>6</sup> : \$300 NZD	€180 (\$300)
United Kingdom	Annual fee <sup>7</sup> : £50	€60
USA	Registration fee payable every 10 years <sup>8</sup> : \$75 USD	€7 (\$7.5)

Based on the above, and in order to maintain in Ireland affordable access to fibre-like fixed wireless, Siklu encourages ComReg to reverse the proposed increase in E-band spectrum fees.

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<sup>1</sup> <https://www.acma.gov.au/sites/default/files/2022-09/Apparatus%20licence%20fee%20schedule%20October%202022.pdf>, Division 6, Table 18, Item 6

<sup>2</sup> In the Czech Republic, access to the 70/80GHz band is based on General Authorisation, which is licence-exempt under <https://www.zakonyprolidi.cz/cs/2005-127>

<sup>3</sup> Page 4: €0.04 per MHz:  
[https://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Telekommunikation/Unternehmen\\_Institution/en/Frequenzen/Verwaltungsvorschriften/VV\\_RiFu.pdf?\\_\\_blob=publicationFile&v=6](https://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Telekommunikation/Unternehmen_Institution/en/Frequenzen/Verwaltungsvorschriften/VV_RiFu.pdf?__blob=publicationFile&v=6)

<sup>4</sup> <https://www.tele.soumu.go.jp/j/ref/material/feestab/>

<sup>5</sup> <https://www.tele.soumu.go.jp/j/ref/material/feestab/>

<sup>6</sup> <https://www.rsm.govt.nz/licensing/licences-you-must-pay-for/fixed-location-licences/fixed-link-licence>

<sup>7</sup> [https://www.ofcom.org.uk/data/assets/pdf\\_file/0030/83496/OfW368-Self-coordinated-links-licence-Application-form.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0030/83496/OfW368-Self-coordinated-links-licence-Application-form.pdf) for a link operating in the self-coordinated part of the band: 73.375-75.875GHz and 83.375-85.875GHz

<sup>8</sup> The FCC does not actually charge any fee for use of E-band spectrum – refer to page 7, section F in <https://docs.fcc.gov/public/attachments/DA-05-311A1.pdf>. However, frequency coordination is outsourced to two private registrars: Micronet and Comsearch, who charge \$75 every 10 years to cover their administrative expenses.