

NEWS

Speakers at industry event stress the importance of resilience in spectrum management

Several speakers at LS Telcom's 30th annual "Spectrum Summit" this week focused on defence, resilience, and sovereignty.

Oct 09, 2026 | [Laura Sear](#)

"As a fighter pilot in training, one sentence stuck with me: If you lose comms, you lose the fight," retired general Christopher Badia told the event.

IRIS² can't use the MSS band effectively the way the band is now organised

Communications and interference with communications are becoming key factors in conflict. According to Badia, 100,000 ships have been affected by [GNSS](#) interference this year. "Spectrum is used as a war tool, targeting global trade," he said. "The next shot might not be a firearm; it might just be transmitted."

How to build resilient communications in this environment? Badia proposed a three-layered architecture of visual dominance, decision dominance and engagement dominance in three domains: space, cyberspace, and spectrum. For the latter, he favours a dynamic management system that can adapt to an environment that may change minute by minute.

"Spectrum management must evolve from regulation to the operational domain," Badia said.

Policy in Europe might not always be aligned with the mindset proposed by Badia. Peter Op de Beek, Project Officer Satellite Communications and Radio Spectrum at the European Defence Agency, said the European Commission was "biting its own tail" by structuring [IRIS²](#) and the [2 GHz MSS](#) band the way it has.

IRIS² is the European Union's secure governmental satellite project, designed to provide resilient, encrypted communications for public authorities and critical infrastructure using a mix of [LEO](#) and [GEO](#) satellites. It will use [mobile-satellite service](#) spectrum around 2 GHz (and related L/S-band allocations).

"IRIS² can't use the MSS band effectively the way the band is now organised, which compromises security targets," said Op de Beek.

The 2 GHz MSS band, the upper C band and the UHF band were ranges that were frequently mentioned at the summit for defence, the mobile industry, utilities, and critical communications.

Utilities and critical communications

“Communication is critical to support the resilient and secure energy transition, and access to spectrum is fundamental to support a variety of energy network use cases,” said Cristina Data, head of Energy Connect (previously known as JRC). “Due consideration needs to be given to energy as the foundational infrastructure of digital society.”

Historically, energy systems were built around large power stations and then distributed around the country, she said. But today, energy networks are becoming more complex, with low-carbon generation being introduced in both the transmission and distribution parts of the network.

Data said that in the future, as more low-carbon energy sources like solar panels or windmills are embedded across the network, the need for a resilient and secure communications network for the energy system increases.

In the UK, the government is looking at several spectrum bands to strengthen that network. A call for input in [2023](#) included :

- 400 MHz (Northern Ireland only): 410-412 MHz paired with 420-422 MHz; 412-414 MHz paired with 422-424 MHz
- 450 MHz: within 450-470 MHz, part or all of 451-456/461-466 MHz or 452.5-457.5/462.5-467.5 MHz
- 700 MHz: 733-736 MHz paired with 788-791 MHz
- 800/900 MHz (Northern Ireland only): 876-880 MHz paired with 921-925 MHz
- 1900 MHz: 1900-1920 MHz

Peter Clemons, head of Quixoticity-EU, a consultancy that specialises in critical communications and public safety, discussed the new European Union Critical Communications System legislation [proposed](#) by the Commission earlier this month. Brussels is proposing a transition from TETRA to an LTE/5G system that operates across borders. Ideally, it would be able to use dedicated spectrum. One of the possibilities suggested is 2 x 8 MHz in the 700 MHz band:

- 2 x 5 MHz in 698-703/753-758 MHz
- 2 x 3 MHz in 703-748/758-803 MHz

This range, however, is not yet harmonised across Europe.

Clemons said that additional UHF spectrum could be found in the lower UHF band (2 x 35 MHz in 617-652/663-698 MHz). “It’s already allocated in the USA and Saudi Arabia for coverage in 5G/6G,” he said. This range is, of course, also used by digital

terrestrial TV and the PMSE (programme making and special events) sector and will be under [discussion](#) for [IMT](#) at WRC-31.

“There is also a need for spectrum for new critical comms technology such as the off-network sidelink, which allows device-to-device communication,” Clemons said.

He added that there were “opportunities to access 450 MHz networks awarded to utilities in certain European markets and also that more mid-band spectrum (around 3-7 GHz) could be made available at some stage for extra capacity.”•

Tags:

[Critical Comms](#), [defence](#), [EU](#), [Utilities](#)