



**EUTC Input to the Public consultation of the Dutch Ministry of Economic Affairs
on the 450 Mhz**

The European Utilities Telecom Council (EUTC)

The European Utilities Telecom Council (EUTC) is the leading European Utilities trade association dedicated to informing its members and influencing policies on how telecommunication solutions and associated challenges can support the future smart infrastructures and the related policy objectives through the use of innovative technologies, processes, business insights and professional people.

This is combined with sharing best practices and learning from across the EUTC and the UTC global organization of telecommunication professionals within the field of utilities and other critical infrastructure environments and associated stakeholders.

Being a European association, we are responding to this questionnaire in English. If needed, EUTC is also willing to provide you with a translation of the document.

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Response to the consultation questions

- **[Original Dutch question]** Wat vindt u van het beleidsvoornemen 'Toekomst van de PAMR-vergunning in de 450 – 470 MHz frequentieband'?
- **[Unofficial translation]** What do you think of the policy intentions ‘the future of the PAMR-license in the 450-470 Mhz spectrum?

Operational communication capability is becoming increasingly important and increasingly demanding for utilities throughout Europe driven by the demands of Smart Grid developments. To enable Smart Grid developments, more and more European utilities are pursuing access to spectrum: dedicated wireless communication systems enable a range of assets to be connected and thus allow the energy utilities to exert a level of control over their network assets that can be guaranteed and is both robust and resilient. These key operational characteristics of robustness and resilience that are designed into dedicated utility communication systems are not factored into the design and deployed of commercial Public Mobile Network systems and as such commercial Public Mobile Networks are not ‘fit for purpose’ to serve the needs of the energy utilities. Indeed, the development of Smart Grids requires connectivity with all assets within the grid, including numerous decentralized assets. The EUTC is of the opinion that the Dutch utilities have taken a brave and necessary step forward by realizing access to spectrum through the market mechanism, i.e. by acquiring an unused spectrum band from the incumbent mobile operator.

Many European utilities have the ambition to follow the Dutch example and gain access to spectrum followed by the subsequent roll-out of a wireless network, which is tailor-made to suit their requirements.

The EUTC encourages the Dutch administration to allocate the 450 MHz spectrum to the current license holder for a long time period. As we note below, an extension of 4 years is insufficient to allow the holder of the licence to make any meaningful investments, and will simply lead to stagnation of spectrum usage and waste of a valuable natural resource – the 400 MHz radio spectrum.

- **[Original Dutch question]** In hoeverre herkent u dat ontwikkelingen op het gebied van LTE-communicatietechnologie nieuwe mogelijkheden zullen scheppen voor professioneel gebruik in de PAMR-frequentieband? Op welke termijn verwacht u dat?
- **[Unofficial translation]** Do you think that developments in the area of LTE-communication technology will create new possibilities for professional use of the PAMR-band? In which timeframe do you expect this?

The PAMR business model has been in existence for many years, but with little evidence of commercial success. The success of public mobile phone operators has undermined the viability of specialised communications providers with little indication of change in the foreseeable future as we move towards 5G. However, some key operational characteristics of robustness and resilience that are designed into dedicated utility communication systems are not factored into the design and deployed of commercial Public Mobile Network systems and as such commercial Public Mobile Networks are not 'fit for purpose' to serve the needs of the energy utilities.

EUTC indeed notes that although there have been many allocations of spectrum in the 400 MHz band (with the 400 MHz band the band 410-430 & 450-470 MHz are meant) around the world, in most instances, commercial telcos have not been able to sustain operations in these bands. The most successful examples of the use of wideband services in the 400 MHz band are where utilities are the prime user.

- **[Original Dutch question]** In hoeverre herkent u dat de PAMR-band (in de toekomst) met name kan voorzien in de behoefte aan kritische datacommunicatie / machine-to-machine communicatie?
- **[Unofficial translation]** Do you think that the PAMR-band will be able to provide the (future) needs of critical data communication / machine-to-machine communication?

The EUTC has advocated over many years for spectrum access for utilities to enable Smart Grid developments and the 400 MHz spectrum is particularly suitable for the utility applications. 400 MHz spectrum has been used to support critical communications in the gas, water and electricity industries for over 50 years, hence the concept of 'critical communications' and 'machine-to-machine' are well proven concepts in these sectors. The future needs of these sectors result in a massive increase in the number of points to be connected, a requirement particularly suited to 400 MHz spectrum which combines adequate data rates with good geographic coverage and penetration into both man-made and natural obstructions.

- **[Original Dutch question]** Wat vindt u van de keuze om de PAMR-band beschikbaar te houden voor gespecialiseerde, openbare dienstverlening?
- **[Unofficial translation]** What do you think of the choice to keep the PAMR-available for specialized, public services?

As noted above, the 400 MHz bands have unique physical properties which make them attractive for critical communications, but the relatively low data rates and insufficient spectrum to support multiple networks makes 400 MHz no longer attractive for commercial operators seeking to serve mass-market requirements. Moreover, the physical constraints of lower frequency spectrum requiring larger antennas for efficient operation make it unsuitable for modern compact consumer devices.

- **[Original Dutch question]** Wat vindt u van de voorgestelde verlengingstermijn van 4 jaar?
- **[Unofficial translation]** What do you think of the proposed extension of 4 years?

An extension of 4 years is insufficient to allow the holder of the licence to make any meaningful investments, and will simply lead to stagnation of spectrum usage and waste of a valuable natural resource – the 450 MHz radio spectrum. A period of 20 years is necessary to justify the scale of investment in a nation-wide network, with asset lives in some cases up to 50 years for radio towers. In addition the utility applications using 400 MHz connectivity which are serviced through the radio network also have a minimum lifespan of 20 years..