450 alliance.org

promoting the advancement of 450MHz worldwide.

20 April 2021

Ministerie van Economische Zaken en Klimaat
The Netherlands

https://www.internetconsultatie.nl/pamrbeleidsvoornemen

Reference: Beleidsvoornemen toekomstig gebruik van de PAMR-band (2 x 3 MHz) in het 450-470 MHz spectrum

Dear Madam, Sir,

We are writing to you on behalf of the 450 MHz Alliance in response to the public consultation on the document *Beleidsvoornemen toekomstig gebruik van de PAMR-band (2 x 3 MHz) in het 450-470 MHz spectrum* that the Ministry of Economic Affairs and Climate Policy released in March 2021.

The 450 MHz Alliance is an industry association that represents the interests of stakeholders in CDMA and LTE systems in the frequency range of 380 – 512 MHz, which are outside the focus of the main mobile operators but address important niche use cases in many countries. Our members include traditional wireless industry companies such as wireless license holders, carriers and major equipment manufacturers, as well as companies representing various vertical markets for machine-to-machine communication.

The 450 MHz Alliance strongly believes in the potential of these frequency bands and advocates harmonization and standardization in this field. The members of the 450 MHz Alliance have successfully developed mature ecosystems (standards, chipsets, modules, devices, network equipment and tooling) for the 450 MHz-band. Utility Connect has been actively involved in stimulating this development and standardization of LTE technology in the 450 MHz-band.

Utility Connect in the Netherlands has been a frontrunner in using the 450 MHz-band for critical infrastructures and the energy utilities in particular. Since Utility Connect started a dedicated service for utilities we have seen many similar initiatives for the energy sector to emerge in Europe, including in countries like Hungary, Austria, Poland, Ireland and most recently Germany. These developments in turn contribute to the further development of the 450 MHz eco-system. In principle there are different business opportunities possible in the 450 MHz band, being utility & critical infrastructures as well as rural mobile broadband. However, given the Dutch geographical circumstances and dense population, we don't believe that rural mobile broadband would be a viable market opportunity in The Netherlands.

It is from this perspective that we advocate to allocate and assign the whole 450 MHz band (2 x 3 MHz) in the Netherlands to wireless access for utilities (operators of water, road, energy and other critical infrastructures). The 450 MHz frequency range allows for good coverage even with a relatively low number of radio sites, which makes it economically feasible to obtain high levels of protection, thus creating extremely reliable and secure networks. We see that this is recognized in more and more countries worldwide. For example: in several countries, electricity grid operators use

such networks to monitor and control the smart grid and smart meters and to secure voice communications for emergency field service in case of major power outages (blackouts). These types of solutions can facilitate the energy transition in those countries enormously.

In response to the consultation, the 450 MHz Alliance supports the decision to extend the duration of the spectrum license in order to guarantee continued operation of the CDMA smart meters and other CDMA applications. At the same time, the 450 MHz Alliance recommends to define a future proof spectrum policy based on the following principles:

- Channel bandwidth of 2x5 MHz: although the actual usage of the spectrum may not allow for a wider bandwidth than the 2x3 MHz that is currently available, an increase to 2x5 MHz in the near future would be highly recommendable. We consider 3GPP standardized technologies as the most efficient and economical basis for M2M communications in these bands. Within these standards, LTE at 2x1,4 MHz is an option and would fit in the proposed channel plan, but the efficiency is relatively low compared to LTE at 2x3 or 2x5 MHz. Moreover, a future evolution towards 5G and next generation 3GPP technologies isn't possible within 2x 1,4 MHz given the current status of 3GPP standardization. Hence, the proposal by the Ministry of Economic Affairs and Climate Policy may turn out to be blocking for further technology development and hence for an even more efficient use of the available spectrum.
- A license duration of 25 years: building networks that are highly reliable and secure requires high investments. Moreover, users of critical infrastructures often require (lifecycle) stability in their communications solution, since their assets may have long lifecycles during which a change in their communications solution should be avoided as much as possible. So both for the network operator and for the users, a license period of 25 years would be very beneficial. Hence we believe it would be a just decision that supports the intended use of the 450 MHz frequency band.

On behalf of the 450 MHz Alliance we want to express our appreciation for the opportunity to share our insights.

Dear madam, sir, the 450 MHz Alliance remains at your disposition for any further questions.

Yours Sincerely,

Igor Virker
Managing Director

Gösta Kallner
Chairman

Consent: the 450 MHz Alliance has no objections to integral publication of this memo.