

Radio Spectrum Policy Group – RSPG  
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## **Response from Yle to the public consultation on the Draft RSPG Opinion on a long-term strategy on the future use of the UHF band (470–790 MHz) in the European Union**

Yle welcomes the opportunity to provide comments on the draft RSPG Opinion on a long-term strategy on the future use of the UHF band (470–790 MHz). We focus on the long-term usage of the sub-700 MHz band, i.e. 470–694 MHz.

### **1. Facts about Yle**

Yle, the Finnish Broadcasting Company, is Finland's national public service media (PSM) company. Yle operates four national television channels and six radio channels complemented by 25 regional radio stations. In 2013, Yle TV1 was the most popular television channel in Finland. Yle's share of daily television viewing was 41.9%.

Yle's operations are financed by a public broadcasting tax, which replaced the TV licence fee at the beginning of 2013. The company is 99.9% state-owned and supervised by an Administrative Council appointed by the Parliament of Finland.

### **2. Yle's views on the changing consumption, publication and delivery of audiovisual media**

Currently, TV channels delivered over the broadcasting networks dominate the consumption of video content published by Yle. In addition to its TV channels, Yle publishes linear video and VOD content through online services.

We expect the share of linear video and VOD viewing through our online services to increase significantly in the future. In addition to changing user preferences, changes in the device base for video consumption are also leading to changes in video consumption. We predict that the number of video consumption devices without a broadcasting receiver will soon exceed that of devices with a broadcasting receiver. We believe that the share of video content viewing through IP-enabled screens will, over time, surpass viewing through DTT and other broadcasting receivers.

Due to the changing user behaviour, Yle is allocating more resources from the publishing of broadcasting channels to the publishing of linear video and VOD through our online services. The share of video content published only through our online services but not through TV channels is increasing. We predict that Yle's online services will develop to be the primary video publishing platform containing VOD content, TV channels and other linear live video channels which are not broadcast. Nevertheless, delivery of TV channels through broadcasting networks will also continue for a long time.

In order to be able to serve the entire Finnish audience with our online video services, wireless and fixed broadband networks in Finland need to be able to deliver video content to the entire Finnish audience with sufficient capacity. In the short- and medium-term the

4G LTE networks in the 700 MHz, 800 MHz, 1,800 MHz and 2.6 GHz bands will carry increasing amounts of Yle video content, as well as video from other content providers. However, we predict that unicasting LTE networks on these frequency bands are not able to serve the entire audience with sufficient capacity.

We assume that the evolving eMBMS feature in 4G/5G networks will offer in the future a feasible technical possibility to serve the entire audience simultaneously with linear video channels. Delivery of VOD content requires increasing unicasting capacity in WBB networks. In addition to the technical capabilities, several regulatory, cost and other business model prerequisites also need to be fulfilled, including regulation regarding the delivery of PSM content such as FTA access, Must Carry, etc.

### **3. The flexibility option in the 470–694 MHz band (page 27)**

In order to enable sufficient wireless broadband capacity for Yle online video services, we consider the usage of 4G/5G WBB downlink only technology (including the evolving eMBMS feature) in the 470–694 MHz band to be a relevant technical alternative. Ensuring the usability of 4G/5G WBB technology in the 470–694 MHz band requires further technical, business model and regulatory studies, but the information gathered so far seems promising.

**Yle strongly supports** the RSPG recommendation that,  
*“Member States should have the flexibility to use the 470–694 MHz band for WBB downlink, provided that such use is compatible with the broadcasting needs in the relevant Member State and does not create a constraint on the operations of DTT in this band, including for neighbouring countries;”*

**Yle asks RSPG to begin the necessary detailed studies** to clarify the technical, business model and regulatory conditions for the usage of 4G/5G WBB downlink only technology, including the evolving eMBMS feature, in the 470–694 MHz band.

### **4. Other Yle comments**

#### **Section 9, “The Opinion of the RSPG”, page 27:**

Yle strongly supports the RSPG recommendation that,  
*“RSPG recognises that the band 470–694 MHz is **mainly** used for downstream audiovisual content distribution and recommends that it remains as such for the long term, even beyond 2030”.*

However, we see that due to the importance of AV media content delivery, the wording should be “**primarily**” instead of “**mainly**”.

#### **Section 7.3.1, “Description of options for the band 470–694 MHz”, page 24:**

*“The Public Service Media obligations concerning the availability and coverage, i.e. to be available at the point of access for all and for free, are generally defined in the law. Therefore, if **option III** is to be considered for the delivery of public service broadcasting and other free-to-air programs in the long term, the prerequisites of the platforms concerned and cost effects should be thoroughly investigated. These prerequisites might include interalia, regulatory and legal factors (e.g. “must carry” rules, rules for general interest content, net neutrality ...) economic factors affecting the delivery costs for television market players and individual citizens, as well as technological matters such as quality, availability and reliability of networks.”*

Yle strongly supports this RSPG statement. However, Yle understands that this statement applies as well to “**option II**” (as described on page 23), because option II covers the

WBB downlink-only delivery of PSM AV content.  
Thus we propose “**option II**” be added to the statement just before words “**option III**”.

**Section 7.3.1, “Description of options for the band 470–694 MHz”, page 23:**

*“Usage of the band for distribution of audiovisual content by either a combination of DTT platforms and/or cellular terrestrial networks (hybrid) or evolved/new cellular networks only, in which broadcast and mobile broadband services are provided through additional downlink capacity.”*

Yle understands that this statement refers to downlink-only usage (either with DTT or WBB technology). Yle proposes that the words “downlink only” should be added in order to clarify the meaning of the statement.

Yours faithfully

**Yle – Finnish Broadcasting Company Ltd.**

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