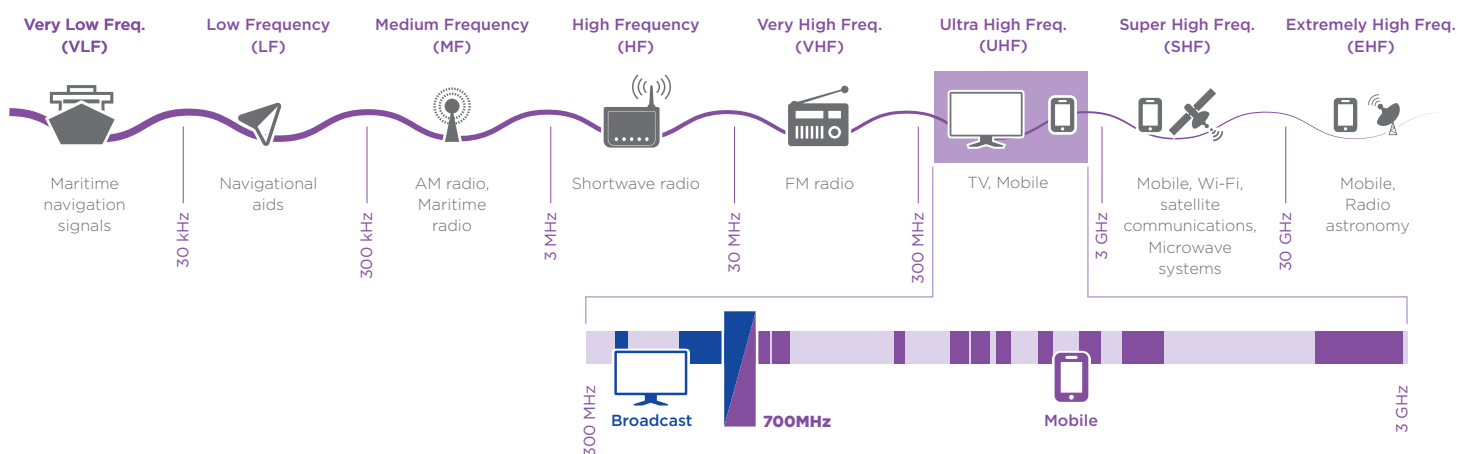





## SPECTRUM FACTSHEET

**Spectrum** - or radio spectrum - is the range of electromagnetic radio frequencies used to transmit data wirelessly. Spectrum is split into different parts that are then allocated to one or more services, like **digital terrestrial television (DTT)** - where the signal is received through a TV's aerial. DTT (television broadcasting) requires spectrum in the **UHF band** because of its technical properties - while mobile internet can and already uses higher frequencies. Public broadcasters rely on DTT - the most effective means of distributing TV programmes to large audiences - to ensure that every citizen has access to free-to-air TV.



The UHF band (470 to 862 MHz) is critical to the delivery of broadcast services, and is the only frequency range that can be used for TV broadcasting. Parts of the UHF band have already been freed up for mobile use, and there is increasing pressure from mobile operators to open the 700MHz band.

## THE MYTHS & FACTS BEHIND THE SPECTRUM DEBATE

<p>TELEVISION: <b>A THING OF THE PAST ?</b></p>	<p>In Europe <b>250 MILLION PEOPLE</b>, nearly half of all households rely on DTT to watch TV</p> <p>Estimates show live TV viewing will account for <b>82% of TV consumption in 2020.</b></p> 
<p>MOBILE USAGE: <b>INCREASING SO FAST IT NEEDS MORE SPECTRUM?</b></p>	<p>Current models <b>OVERESTIMATE BY 100X</b> or more the <b>mobile traffic density</b> for 2020</p> <p><b>71%</b> of all wireless data to mobile devices in the EU was delivered using Wi-Fi, which offers better reception and is cheaper.</p> 
<p>UHF BAND: <b>ONLY FREQUENCIES LEFT FOR FURTHER MOBILE USE?</b></p>	<p><b>Mobile networks CAN</b> and already <b>operate on higher frequencies</b> which could be used more efficiently.</p> <p><b>TV, on the other hand, CANNOT function on higher frequencies.</b> The only part of the spectrum that DTT can use is the UHF band.</p> 

# SPECTRUM & THE FUTURE OF TELEVISION

Spectrum planning decisions are agreed at the World Radiocommunications Conferences (WRC), organized by the International Telecommunication Union (ITU) every 3 to 4 years. The next WRC will be held in November 2015, where regulators will try to ensure sufficient allocation of spectrum in the face of increasing demand from different services.



## AN IMPORTANT DECISION WITH WIDESPREAD IMPACT



Upcoming decisions on the allocation of spectrum – especially the UHF Band – will impact our ability to watch TV.



If spectrum for TV broadcasting is significantly limited, the reception and quality of services (live sporting events like the World Cup) would be compromised.



There would be less choice of TV channels, and cultural diversity would suffer.



## WE NEED BOTH MOBILE AND TV BROADCASTING



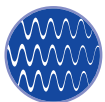
Mobile services and public broadcasting are complimentary and respond to different needs.



Mobile services ensure one-to-one communications (phone calls, mobile internet).



Public terrestrial broadcasting is indispensable for spectrum-efficient one-to-many transmissions (free-to-air TV, coverage of major live events, emergency communications).



## A FUTURE WHERE BOTH TV AND MOBILE WORK TOGETHER IS POSSIBLE



Increased demand for mobile services can be met outside the UHF Band through higher frequency ranges (L-band, 2.3 GHz, 2.6 GHz) without jeopardizing the quality of TV services in Europe.

### Spectrum policymakers need to:

**Reflect** how and where the public consume content (taking into account increased use of Wi-Fi for mobile services).



**Ensure** that spectrum already assigned to mobile broadband is used most efficiently with the latest technology.



**Protect** and **secure** the UHF band (470-694MHz) and keep the 700MHz band as it is, until an assessment is done on the costs and impact of its release.