

Time for determination on spectrum policy

June 13th 2016

Access to internet is increasingly based on mobile. The combination of smarter handsets, content tailored for mobile use and exponential growth in network capacity has generated a virtuous circle that seems unstoppable. Policymakers that want internet to reach everyone, for the sake of economies and productivity, have taken note and try to ensure that no bottlenecks stop the trend. Now comes the time to implement the appropriate policies, and few of them have a larger and wider impact on handsets, content and network deployments than spectrum policy. Policymakers must show that there is real determination behind the messages. At European level, the exams they must pass are the strategy for the UHF band and the spectrum policy aspects of the Regulatory Framework for Electronic Communications.

On May 26th, the European Council adopted its [General Approach](#) on the “Proposal for a Decision of the European Parliament and the Council on the use of the 470-790 MHz frequency band in the European Union”, presented earlier this year by the [European Commission](#). In its opinion, the European Council expresses two specific concerns. First, the 2020 deadline for clearing 700 MHz proposed by the European Commission is considered unattainable in some countries, and a delay until 2022 is introduced. Second, the proposed review by 2025 of the use of the UHF band below 700 MHz is deleted, and availability of the band for broadcasting is ensured until at least 2030, based on national needs.

Telefónica is of the view that European policymakers need to evaluate carefully the impact of the delays suggested. There are differences among Member States in terms of use of DTT and duration of broadcasting licences that call for a certain degree of flexibility. However, flexibility should not stop progress towards efficiency. Other regions are taking bold steps to adapt, through market mechanisms, spectrum usage to changes in technology and consumption patterns. The United States, for example, is now in the process of awarding 100 MHz of sub-700 MHz spectrum in the UHF band to mobile operators through an incentive auction in which broadcasters will voluntarily relinquish, for a compensation, their rights to use the spectrum. As a result, by 2019 in most US cities there will be 234 MHz of low frequency spectrum (below 1 GHz) available for mobile broadband networks. By that date, in Europe, in the regions that do not manage to clear the 700 MHz band there will only be 130 MHz available. In places where the 700 MHz is cleared, the available spectrum will be 190 MHz, still well short of the US equivalent.

That gap with other regions poses a clear threat that Europe will fall further behind in mobile connectivity, especially in countries and regions where the 700 MHz band is not available. If delays finally take place provisions should be put in place to ensure the effective enforcement of the 2022 deadline, and to incentivize Member States to minimize interference to their neighbours during the delay.

Ironically, the fact the Europe is behind the US in the use of UHF spectrum also presents an opportunity, because the European countries that start introducing mobile broadband below 700 MHz, no matter their size, will have a chance to benefit from the ecosystem of handsets and equipment developed elsewhere. This option should be used intelligently to gradually introduce mobile broadband in sub 700 MHz frequencies, starting in Member States where DTT platforms are weak.

700 MHz band

Telefónica endorses the deadline of June 2020 for the harmonised introduction of mobile broadband across the EU, as per **Article 1** of the draft Decision. We think there is sufficient time to plan and implement the repurposing of the band, and we are not convinced that a delay until 2022 is absolutely necessary. France and Germany have already licensed the band in 2015, and a delay until 2022 in other countries would mean a lapse of seven years between the first awards and availability across the EU, substantially more than it has taken for example in the case of 800 MHz, which was first awarded in Germany in 2010.

If the deadline is finally postponed to 2022, as proposed by the European Council, appropriate provisions should be included in the final text of the Decision, or in the revised Regulatory Framework, in order to:

- Ensure that the new deadline is effectively enforced and there are no new delays.
- Ensure that Member States that delay really make all reasonable efforts to minimize resulting interference in their neighbours.
- Ensure that operators have information about possible delays in due time, in order to be able to plan their networks accordingly. In particular, Telefónica suggests that the delay is announced no later than June 30th 2018.
- Ensure that the lapse of time between the award process and the availability of the band is optimal. We think a delay of up to 24 months is appropriate, as longer periods entail unavoidable uncertainty and do not allow accurate valuations.
- Finally, and in order to maximize the incentives for Member States to meet the time-plan committed, the payment of the auction fees should not take place until the frequencies can be effectively used, with the only possible exception of advanced payments dedicated to finance the clearance costs.

Telefónica also welcomes the Council proposal to delete the reference to the Digital Agenda 30 Mbps universal coverage target in **Article 3**. We believe that mobile might not always be the most efficient technical solution to meet the Digital Agenda target, especially indoors. It is therefore sensible, in our view, to provide flexibility to Member States in terms of how the Digital Agenda target is to be achieved. For the same reason, the reference to the 30 Mbps target in recital 3 of the draft opinion, which has not been amended on the Council General Approach, should be softened or deleted.

Sub-700 MHz band

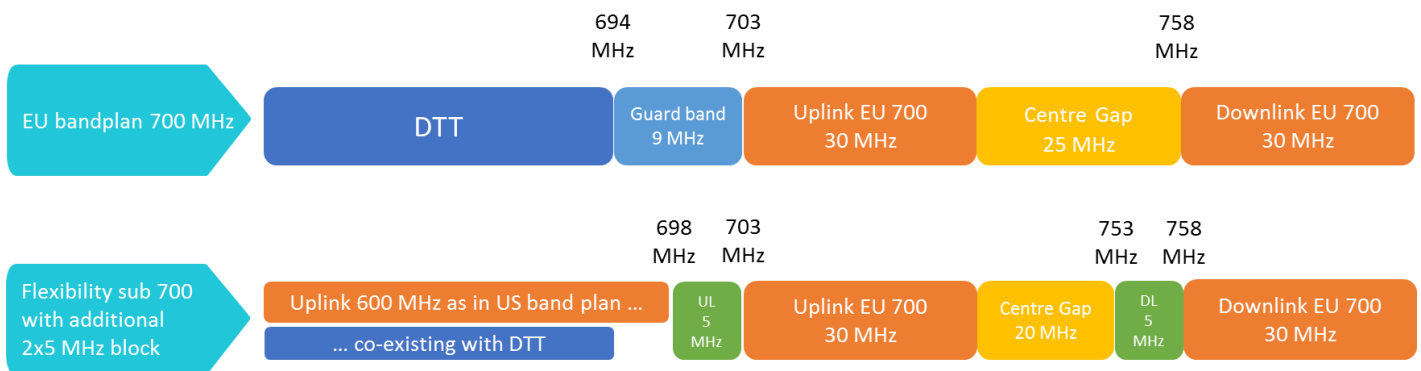
Article 4 of the Draft Decision offers flexibility to Member States, within today's regulatory framework, to identify all or parts of 470-694 MHz band for designating Downlink only spectrum resources to mobile services on a non-interference basis both at national and cross border level. Such a measure may fulfil the short-term needs of some countries where DTT is not the main means to get access to TV services. We welcome the principle behind the proposal, but we have the following comments regarding its practical implementation:

- The Downlink-only condition imposes a disproportionate technical limitation, impeding the possible future usage of the sub-700 MHz band for two-way mobile communication, which could be a more valuable option.
- Broadcasting and two-way mobile communication can potentially co-exist in the same band. We see no reason to narrow the options at this early stage.

Telefónica welcomes in this respect the deletion of article 4.2 as proposed by the European Council. We perceive, however, a risk of Europe falling further behind North America and Asia, where regulators have started looking at paired use of the 600 MHz band. In the US, for example, the FCC has set an initial clearing target for the incentive auction that would make available in most areas, though not all, ten blocks of 2x5 MHz in the 600 MHz band. To minimise the risk of a widening gap with other regions, we encourage the European Administrations to find a solution which allowed technical work to begin on sub-700 MHz within CEPT ECC PT1, with a view to the introduction in the mid-term of mobile broadband in the sub-700 MHz frequencies in Europe, in regions where DTT use is very low.

In the 700 MHz, the EU has achieved significant benefits from aligning its band plan with the Asia-Pacific plan. Similar opportunities may also arise at sub-700 MHz depending on the band plan outcome of the US Incentive Auction and on the developments in Asia-Pacific:

- Economies of scale in equipment and device compatibility between the EU and other Regions could significantly lower the cost of initial deployments in Europe and facilitate global roaming;
- As shown below, the uplink in the US FDD band plan starts from 698 MHz downwards, fitting well with the harmonised 700 MHz European band plan. A European FDD band plan in 600 MHz with the uplink on the upper part (also down from 698 MHz) would leave exactly 2x5 MHz between the uplink in the 600 MHz band and the uplink in the 700 MHz band, making room for an additional 2x5 MHz block and leaving no idle frequencies between the 700 MHz and the 600 MHz blocks.



- The outcome of the US incentive auction could provide a useful precedent on how to accommodate coexistence, and provide certainty to broadcasters that stay in the 600 MHz band without restricting uplink use by mobile broadband;

Given the different stages of development of DTT platforms across Europe and the need to achieve a minimum scale to ensure a cost efficient deployment of mobile broadband solutions in sub-700 MHz band, Telefónica believes synergies with ecosystems developed in other regions should be explored in Europe when updating the frequency plans for DTT in the UHF band sub 700 MHz, and when evaluating technical harmonisation and co-existence alternatives sub 700 MHz in regions where DTT platforms would not need all of the 470-694 MHz frequencies.

Regarding the report to assess whether and when it is necessary to change the use of the 470-694 MHz frequency band, included in **Article 6** of the draft Decision, Telefónica considers that the report should be maintained, and any deadline for its publication should duly take into account the timeline for the preparation of WRC 2023 which currently includes an Agenda Item regarding the future use of the sub-700 MHz band (to be confirmed at WRC-19). We understand that the objective pursued by the Council is to increase certainty to broadcasters by ensuring that there will be no mandated EU deadline to clear sub 700 MHz spectrum across Europe before 2030. We believe however that the measure is disproportionate and

that any non-neutral use of the spectrum should be subject to periodic reviews to take account of technological progress and demand conditions. Certainty to broadcasters would be provided by putting the burden of proof on those who argue in favour of a change of use, limiting the circumstances that would justify it and foreseeing compensations. We believe the original European Commission proposal was in this respect fit for purpose.