

**Organisation (if applicable):**

Samsung Electronics

**I confirm that I have read the declaration:**

Yes

**Question 1: Do you agree that meeting the future growth in demand for mobile broadband capacity will deliver significant benefits to citizens and consumers?:**

Yes. Samsung Electronics supports the analysis detailed in the consultation document. Samsung Electronics considers the medium to high growth scenarios to be most likely.

**Question 2: Do you agree that additional harmonised mobile broadband spectrum will play an important role in meeting the future growth in demand for mobile broadband capacity? What are your views on the overall quantity of harmonised spectrum that will be required to meet future demand? How does this compare with the expected increase in spectrum for mobile use discussed in this section?:**

Yes. Samsung maintains that harmonised spectrum identification and usage conditions are essential ingredients to promote cost effective devices that will meet the needs of consumers in the future.

Samsung has been participating in a number of fora that have developed views and estimates on the future demand for mobile services and works closely with service providers to help understand the demand growth patterns.

Therefore Samsung supports the target of the European Parliament, Council and Commission to make available at least 1200MHz of spectrum for wireless broadband by 2015, but it will continue to develop technological solutions to address ongoing capacity issues which Samsung expects will extend beyond this timescale.

**Question 3: Do you agree that additional harmonised spectrum provided by the 700 MHz band could play an important role in meeting the future growth in mobile broadband capacity? :**

Yes. However Samsung believes that additional higher frequency ranges will be important for meeting localised capacity demands.

**Question 4: Do you agree that the value of the role played by the 700 MHz band in meeting the future growth in mobile broadband capacity would be greater if it becomes available before other capacity enhancing techniques have been exhausted at existing mobile sites?:**

**Question 5: What timing of 700MHz release would maximise the benefits associated with its use for mobile broadband?:**

Samsung believes that UK release should be coordinated with the wider development of a European harmonised usage framework and re-farming plan.

**Question 6: Do you agree that DTT will continue to play an important role in providing universal low cost access to PSB content over at least the next decade?:**

Yes.

**Question 7: Do you agree that, absent major changes in available spectrum, DTT would continue to remain attractive to viewers and deliver important benefits to citizens and consumers over at least the next decade?:**

Samsung broadly agrees.

**Question 8: What are your views on the future technical evolution of the DTT platform? Are there other relevant factors affecting future DTT spectrum requirements that we should consider as we develop an approach to secure benefits from UHF band IV and V over the long term?:**

There will be a gain in spectrum efficiency due to introduction of more efficient coding and transmission techniques. These will only be successfully introduced if the consumers recognize the value of upgrading their reception equipment (e.g. new services, better service quality).

With the rise of hybrid technologies (e. g. HBBTV-Hybrid Broadband Broadcast TV) the evolution of DTT is not only tied to the availability of spectrum.

**Question 9: Do you agree that a longer term approach to secure benefits from UHF band IV and V should consider how to safeguard benefits delivered by the DTT platform?:**

Yes, see question 15

**Question 10: Are there other material factors affecting the future requirements of PMSE that we should consider as we develop an approach to secure long term benefits from UHF band IV and V?:**

**Question 11: Are there other material factors affecting the future requirements of Local TV that we should consider as we develop an approach to secure long term benefits from UHF band IV and V?:**

**Question 12: Are there other material factors affecting the future requirements of WSD applications that we should consider as we develop an approach to secure long term benefits from UHF band IV and V?:**

Samsung believes that whilst WSD developments may provide useful opportunistic access to spectrum, this cannot be a substitute for dedicated harmonised spectrum for the delivery of

mobile broadband data. Therefore the consideration of WSD spectrum should remain a secondary issue.

**Question 13: Aside from WSDs, are there other innovative ways in which to use UHF bands IV and V to deliver services and, therefore, material benefits to users:**

**Question 14: Are there other material factors affecting the future requirements of emergency services applications that we should be aware of as we develop an approach to secure long term benefits from UHF band IV and V?:**

**Question 15: Do you agree that the approach that is most likely to secure significant benefits from UHF band IV and V over the long term is one that enables the release of the 700 MHz band for mobile broadband whilst also ensuring the role of the DTT platform is safeguarded?:**

Yes. Samsung supports the release of 700MHz for mobile broadband so long as proper attention is paid to the avoidance of interference to DTT services. Any impact and costs related to the delivery of DTT services and the reception by consumers should be properly analysed and addressed. Band plan transitions need to be well managed by government / Ofcom (e. g timely, properly resourced and accurate frequency planning, spectrum engineering). They also need to be clearly communicated to allow sufficient planning of the industry to enable the introduction of suitable products in time and to minimise disruption to DTT viewers. Finally, it is essential that any plan laid down by Ofcom is coherent with a pan-European strategy for the 700 MHz band, in order to maintain a sizeable market and to avoid market fragmentation for both mobile broadband equipment and CE equipment.

**Question 16: Do you believe there is a material risk that the DTT platform will have insufficient spectrum to continue to deliver important benefits (including providing universal low cost access to PSB content) if the 600MHz band is not used for DTT after change of use of the 700 MHz band? :**

No, however if the reduction of available spectrum leads to a more intense usage of Single Frequency Networks, this may require careful planning to avoid difficult to resolve self interference cases.

**Question 17: Do you believe that using the 600 MHz band for DTT after clearing the 700 MHz band would reduce the risk that DTT platform will not be able to continue to provide important citizen and consumer benefits? :**

Yes

**Question 18: Do you agree that the future benefits for citizens and consumers of enabling the release of the 700 MHz band whilst maintaining the role of DTT are likely to outweigh the loss in benefits of the 600 MHz band not being able to be used for other services in the long term?:**

Yes. Samsung has not been aware of any harmonised usage proposals for the UK 600MHz band.

**Question 19: Have we identified correctly the possible short-term uses of the 600 MHz spectrum? Are there other short-term uses we should consider?:**

See response 20

**Question 20: Which option(s) for releasing 600 MHz in the short term would maximise its value whilst supporting our proposed longer term objectives?:**

Pending any discussion amongst the relevant stakeholders, the 600 MHz band could be used to allow for simulcast using more efficient DTT technology. This could help to initiate a band transition, at least in areas where the frequencies are available. It is necessary to motivate users with existing equipment to switch over to these new transmissions by providing additional value (e.g. new services, better picture quality) in order to simplify the final band transition.

**Question 21: Do you agree that the wider impacts of a future clearance of the 700MHz band could be managed to prevent them having a detrimental impact on consumers and the services operating in this band?:**

Response: See response 15

**Question 22: Do you agree that the approach set out in this consultation is likely to secure significant benefits for citizens and consumers over the long term?:**

Samsung broadly agrees with Ofcom's preferred strategic approach but requests international engagement as soon as practical, in order to drive a pan-European harmonization for both mobile broadband and DTT.

**Question 23: Have we correctly identified the main areas of future work that could follow this consultation process subject to its outcome? :**

Samsung broadly agrees, however would like to underline that coexistence between mobile and broadcast service shall be ensured with both legacy receivers and future receivers. Future receivers could be made more robust against mobile interfering signals. However, any new specifications shall be agreed in collaboration with the CE industry and their technology roadmap.

**Additional comments:**