

Organisation (if applicable):

Motorola Solutions UK Ltd

What do you want Ofcom to keep confidential?:

Keep nothing confidential

If you want part of your response kept confidential, which parts?:

Ofcom may publish a response summary:

Yes

I confirm that I have read the declaration:

Yes

Ofcom should only publish this response after the consultation has ended:

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?:

Motorola Solutions agrees that meeting demands for growth for mobile broadband will deliver significant benefits to citizens and consumers. As Motorola Solutions UK Ltd primarily serves the professional markets for wireless and mobile equipment as used by Government and Enterprise customers, we shall confine our response to the spectrum requirements for these market segments.

PPDR users, and other Government users also have growing demands for broadband services, preferably delivered with the assurance and resilience of a private network. Meeting this demand with the provision of harmonised, dedicated spectrum will provide significant benefit to all citizens by reducing the costs of injury, loss of property and even loss of life in emergency situations. Use of such dedicated spectrum across a broader community of Critical National Infrastructure providers (including energy supply and transport) will enable increased efficiencies and resilience in a secure and dedicated environment, and will play a part in maintaining the growth and prosperity of the British economy.

The recently adopted European Union RSPD Decision 243/2012/EU to enable a European-wide environment under harmonised conditions for PPDR (Article 8.3) can be found at the following link:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32012D0243:EN:NOT>

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?:

We agree that additional harmonised spectrum has an important role in meeting future growth. The aspect of harmonisation is particularly important, as it generates the market sizes necessary to drive economies of scale in both network and terminal equipment.

Harmonisation is particularly important in small niche markets, such as the PPDR market. Any national-only solutions are likely to lead to expensive, single-supplier proprietary solutions. Harmonisation brings both the economies of scale, and also the possibility of international roaming for mutual assistance in the PPDR market, in the same way that it brings the benefits of international roaming in consumer markets.

We have no comment on the scale of increased spectrum needed for consumer markets. The PPDR market is assessed to need at least 10+10MHz (see ETSI TR.102 628).

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? :

We agree that 700MHz could play an important role in meeting the need for growth in mobile broadband, especially in the specialised PPDR market. This band is particularly relevant due to the adoption of 700MHz in the USA and Canada for PPDR, and by some countries in the Asia-Pacific region, and could lead to worldwide economies of scale for equipment supply.

At the ITU-level, as you are aware the WRC12 decided for Region 1 to instruct ITU-R under Agenda Item 1.2 for WRC15 to conduct interference studies of the band 694 - 790 MHz as a potential co-primary MOBILE allocation with BROADCASTING. This band has all of the characteristics necessary to be an ideal candidate band for European dedicated PPDR spectrum, both for technical and economical reasons. Its use would complement the use of 380 - 400 MHz where Airwave offers TETRA for the Emergency Services, enabling TETRA 400MHz narrowband and 700MHz broadband devices to operate in close proximity, and satisfying the demand for broadband services in addition to the existing narrowband services.

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?:

We have no comment to make on this question.

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

For the PPDR market, an early release is imperative. We note that as stated in the consultation, the Airwave contracts with Police users will terminate over the 2016-2020

period, and we also note that the Home Office are currently conducting a programme which is examining future technologies for Emergency Services use. If spectrum were to become available by or soon after 2018 as suggested in the consultation, this would allow newer technologies for broadband data use to be added to the existing resilient voice services in the 2020 timeframe, and would help the Government in forming a strategy for future Emergency Services communications.

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?:

Motorola do not wish to comment on the main role of DTT, relating to distribution of national cultural content. However we do believe that DTT can play a role in Public Safety and protection purposes as a regional alert and alarm service under special disaster conditions, making its continued wide availability important.

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?:

We have no comment to make on this question.

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?:

We have no comment to make on this question, except that in agreement with the views offered in the Consultation, the evolution in technology in general should improve the efficiency of the DTT platform.

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?:

We have no comment to make on this question.

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?:

We have no comment to make on this question.

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?:

We have no comment to make on this question.

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?:

We have no comment to make on this question.

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:

We have no comment to make on this question.

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?:

There is a proven need for spectrum for broadband data for emergency services use, with 10+10MHz proposed as the requirement in ETSI TR 102 628. It is likely that PPDR services in Europe will also adopt LTE, as has been chosen in the USA, to reap the benefits of a fast developing technology. It is unlikely that a commercial network will satisfy all of the requirements for security and resilience, which implies that a private network in its own spectrum is the optimum solution. Due to the small scale of the market, harmonised spectrum across Europe will be imperative for such networks; and preferably spectrum with sufficient commonality with spectrum adopted elsewhere in the world for such applications. Due to the adoption of 700MHz in the USA and Canada, and in parts of Asia, this would be the optimum frequency band for PPDR applications. We would urge Ofcom to support the activity in CEPT FM PT49 which is endeavouring to find spectrum for PPDR use below 1GHz, and should such spectrum become harmonised in the 700MHz band, to allocate it for this purpose in the UK also. We would note that if LTE is adopted by the emergency services, and is the likely technology to be used by commercial networks in that same band, the coexistence effects will be minimised.

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?:

We agree that the release of 700MHz for mobile broadband - for both consumer and emergency service use - whilst preserving DTT is likely to produce the greatest benefits.

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? :

We agree that without the 600MHz band, the benefits of the DTT platform will be reduced after 700MHz is cleared.

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? :

We agree that using the 600MHz band for DTT would give the lowest risks to the DTT platform.

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?:

We believe that the benefits in the release of the 700MHz band are likely to outweigh the benefits of other uses of the 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?:

We have no comment to make on this question.

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

We have no comment to make on this question.

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?:

We believe that the change of use of the 700MHz could be successfully managed, especially with the experience gained from the change of use of 800MHz.

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?:

We believe that the approach of this consultation will secure significant benefits, both in terms of direct value to consumers with the increased availability of spectrum for broadband data, and of value to society by improving the situational awareness and efficiency of the emergency services.

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

We believe that a further task related to international engagement will be participation in CEPT FM PT49 and the allocation of harmonised frequencies to PPDR users in Europe in accordance with Article 8.3 of 243/2012/EU as mentioned earlier.

Additional comments: