

**Organisation (if applicable):**

ALCATEL-LUCENT

**What additional details do you want to keep confidential?:**

No

**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

**Additional comments:**

**Question 1: Do you have any comments on the mechanism for UK preparation for WRC-15 and the role of Ofcom in this process?:**

Alcatel-Lucent applauds Ofcom for the open and transparent mechanisms it has established in preparation for WRC-15.

Alcatel-Lucent has participated in discussions in several of the International Frequency Planning Group (IFPG) Working Groups and appreciates the rigor and professionalism exhibited in these preparatory groups. We welcome the opportunity to further contribute to the process. Alcatel-Lucent believes that the mechanism of the UK preparation - ensured by Ofcom under Government direction - have been effective in ensuring a fully efficient UK preparation process for WRC-15.

Alcatel-Lucent agrees with Ofcom's approach of grouping the various agenda items (AI) into broad categories in order to facilitate this consultation.

The current document groups the AIs into following categories:

- Electronic Communication services with AIs 1.1, 1.2, 1.3, 1.4, 1.6.1, 1.6.2, 1.7, 1.9.1 and 1.10
- Transport, including radio determination with AIs 1.11, 1.12, 1.13 and 1.14
- Standing Agenda Items with AIs 2, 3, 4, 5, 6, 7, 8 and 9
- Future Agenda Items with AI 10

**Question 2: Do you agree with the prioritisation of the agenda items, as shown in Annex 6, and if not why?:**

Alcatel-Lucent generally agrees with the prioritization of the agenda items as shown in Annex 6. As indicated in this Annex, AIs 1.1, 1.2, 1.3 are of major importance for the mobile industry and, consequently, for Alcatel-Lucent. We are fully aligned on the "High" priority status of the AIs 1.1, 1.2, and 1.3 as they are the key ones shaping our future products.

In addition, Alcatel-Lucent, as a provider of microwave links used especially for backhauling of mobile access networks, considers that new allocations or modifications of regulatory regimes as proposed under AIs 1.6.1, 1.6.2, 1.8, 1.9.1 and 1.10, should not result in additional constraints on the implementation of microwave links operating under a fixed service allocation. In our view, these AIs are also of "High" priority. Understanding that Ofcom must consider many other issues, we recognize that not everything can be "High" priority.

We do note with concern that Issue 9.1.5 is considered a "Low" priority. We understand the logic of such a prioritisation if one considers that this Issue is supposed to address the needs of certain administrations within Region 1, and not necessarily the UK. However, as this issue addresses the 3.5 GHz band - identified for IMT in the UK via No. 5.430A - Alcatel-Lucent encourages Ofcom to be vigilant to ensuring that this Issue does not have unintended consequences for the use of the band throughout Region 1.

### **Question 3: Do you agree with Ofcom's general approach on WRC-15 agenda item 1.1?:**

Alcatel-Lucent agrees with Ofcom's general approach on WRC-15 agenda item 1.1. In particular, we agree with Ofcom's recognition of the need to identify additional spectrum for IMT at the international level and the need to give administrations flexibility in implementing harmonized spectrum. The currently available spectrum is recognized as insufficient to address the growth in demand for mobile data. Alcatel-Lucent especially welcomed the UK statement during the European WRC-15 preparation process that the aim of WRC-15 should be to provide the means to satisfy the long-term needs of IMT, preferably on a global basis, and not just to identify limited pieces of additional spectrum for IMT.

Detailed views of Alcatel-Lucent on the respective bands are expressed in the responses to specific questions below.

### **Question 4: In view of the recent developments on the 1 492 - 1 518 MHz and 5 925 - 6 425 MHz bands, what are your views on the potential identification of these bands for IMT and/or RLAN and on the mobile data applications that could make use of them? How do you believe the sharing with the fixed service and the fixed satellite services could be managed at the national level?:**

While CEPT is still developing its position on the future use of the 1492-1518 MHz band, the band received the support of most administrations having expressed their views at the CPG PTD meeting on 1-5 September 2014. This band is already allocated to the mobile service in the three Regions, and the potential for a worldwide IMT identification seems very high. This results in the possibility to develop a global market, with its obvious benefits of economies of scale and terminal availability for the end customers. For this reason, Alcatel-Lucent supports the identification of the band 1492-1517 MHz for IMT.

In regard to the fixed service (microwave) in this spectrum, we note that this service uses

paired spectrum globally 1350-1400MHz, 1427-1452MHz & 1492-1517MHz, subdivided into two 2x25 MHz frequency arrangements. We note that these frequency arrangements are devoted mainly to low-capacity systems and that CEPT has already considered (within ECC SE PT19) solutions to move these systems to other frequency bands. These studies resulted in the ECC Report 215 which analyses the possibility of moving the microwaves from L-Band into the 6 GHz band (in the guard bands) or into the 10 GHz band.

Nevertheless we recognize that, according to ECC Report 173, UK is the European country where the use of the band 1350-1375 MHz // 1492-1517 MHz by fixed service (FS) is the most important, including for Point-to-Multipoint (P-MP) operation. In these conditions global refarming of the fixed service to other frequency bands may not be fully possible, and some FS systems may remain within the band, especially P-MP systems. But, as the topology of such P-MP systems would be similar to the one of IMT systems, we think that coordination with IMT systems would be possible.

In conclusion we suggest that co-existence with the FS could be solved by a mix of refarming to other frequency bands and by coordination between FS and IMT networks.

Alcatel-Lucent does not support the identification for IMT of the 5925-6425 MHz band, as it is already widely used by microwave links and also allocated to fixed satellite service (FSS). In any case, from our point-of-view, the major issue to be solved before introducing IMT is the protection of microwave links operating in this band.

We also point out that the introduction of IMT should take into account the possible impact of the Earth Stations transmitters operating in the band, even if, in case of big Earth Stations this issue can be easily solved by coordination measures.

**Question 5: For the band 1 427 ? 1 452 MHz, do you agree that it is right to support the further consideration of the band, recognising the Ministry of Defence interest?:**

CEPT supports the identification for IMT of the band 1427-1452 MHz. Alcatel-Lucent notes that this band is already allocated to the mobile service in the three ITU-R Regions. However, limits set to protect adjacent EESS (passive) operating in the band 1400-1427 MHz may make utilization by IMT systems problematic, at least in the lower part of the band.

As CEPT recognizes, identification of 1427-1452 MHz for IMT presents the following advantages:

- A possible global identification to IMT, and,
- The possibility to implement large IMT blocks within the band 1427-1518 MHz, in association with the bands 1452-1492 MHz and 1492-1518 MHz.

On the other hand, the protection of the passive services below 1427 MHz would impose severe limitations to the deployment of IMT in the frequency range immediately above 1427 MHz, and so, a large guard band will likely result in the Out-Of-Band Emission limits imposed to IMT terminals or base stations.

As such, Alcatel-Lucent - even if supporting the general position of the mobile industry and of CEPT in favour of an identification of the band 1427-1452 MHz for IMT - points out that

the restrictions that will be imposed to the implementation of IMT make this band rather unattractive as a stand-alone IMT band, and that its identification should be associated with the identification of other parts of the L-Band.

**Question 6: For the band 1 452 ? 1 492 MHz, which is already subject to a harmonisation measure within CEPT, do you agree that this band be supported for an IMT identification at WRC-15?:**

CEPT decided to harmonise this band for mobile broadband supplemental downlink (SDL), a decision based on the conclusions of ECC Report 188. The ECC decided to adopt an ECC Decision designating this band for Mobile/Fixed Communications Networks Supplemental Downlink.

Alcatel-Lucent supports this Decision and believes that it will allow Europe to take early leadership to drive the global harmonisation of the band plan for these 40 MHz of spectrum. In this context, we support the identification of this band for IMT at WRC-15, which would facilitate global use of the band for IMT.

**Question 7: Recognising the UK plans to release spectrum in the 3 400 ? 3 600 MHz band, coupled with the binding European Commission Decision (for electronic communications services) in the bands 3 400 ? 3 600 MHz and 3 600 ? 3800 MHz, do you agree that these bands should be supported for both a co-primary mobile allocation and IMT identification?:**

The band 3400-3600 MHz is allocated to the mobile service and, in addition, identified for IMT in many countries in Regions 1 and/or 3. Specifically in Region 1, it is allocated to mobile on a primary basis and identified for IMT in 82 countries by footnote.

Alcatel-Lucent is of the view that a co-primary allocation to the mobile service in Region 1, directly in the Article 5 Table of Allocations, would be important to ensure a global usage of the band by IMT systems in the future.

Usage of the band for IMT is possible in EU countries in the context of "terrestrial systems capable of providing Electronic Communications Services" based on the Commission Decision 2008/411/EC (May 2008), and in the context of Mobile/Fixed Communications Networks (MFCN) in those CEPT countries implementing ECC/DEC(11)06 (December 2011).

Alcatel-Lucent agrees with Ofcom's approach concerning the 3400-3600 MHz band, i.e., supporting a co-primary mobile allocation and IMT identification.

The band 3600-3800 MHz is allocated worldwide to fixed and fixed satellite services (FSS). The band is also allocated to the mobile service on a primary basis in Regions 2 and 3, and on a secondary basis in Region 1. This band is not identified for IMT; although usage of this band for IMT in the context of "terrestrial systems capable of providing terrestrial communications services" is possible in EU countries based on the Commission Decision 2008/411/EC (May 2008), and, more generally, in the context of MFCN for CEPT countries implementing ECC Decision (11)06 (December 2011). We agree that this band should also

be supported for both a co-primary mobile allocation and IMT identification to ensure a global usage for IMT in the future.

**Question 8: Noting that there are a number of countries that strongly oppose the inclusions of the 3 800 ? 4 200 MHz band, do you agree that we should support the longer term consideration of this band for potential mobile broadband use?:**

The possible role of the band 3800-4200 MHz has been considered in the "RSPG Opinion on Strategic Challenges facing Europe in addressing the Growing Spectrum Demand for Wireless Broadband", adopted in June 2013, which states:

"Nevertheless, the frequency range 3800-4200 MHz has the potential to play a role in the provision of electronic communications services to ensure that the future capacity needs especially in urban areas, are met. Therefore, studies should be carried out into the possibility of sharing in Europe between the FSS and terrestrial wireless broadband services."

This Opinion clearly invites EU countries to consider an identification of this band for the provision of Broadband Mobile applications. We suggest that Ofcom continues to support the allocation to mobile service and the identification for IMT of the band 3.8-4.2 GHz at WRC-15.

Alcatel-Lucent encourages Ofcom - whatever the result of the Conference would be - to support at the European level, and as soon as possible after WRC-15, an identification of the band for Electronic Communications Services / MFCN within the EU and CEPT, in line with the conclusions of the above-mentioned RSPG Opinion.

**Question 9: Noting that there is currently limited international support for a co-primary mobile allocation in the band 2 700 ? 2 900 MHz, do you think that we should continue to support this band at WRC-15?:**

At CEPT, this band is currently supported IMT identification by four administrations, as well as by the mobile industry as represented by GSMA, Digital Europe, and the UMTS Forum. There is no reason not to continue to support a co-primary mobile allocation in the band 2700-2900 MHz. As no industrial development will be initiated before the conclusions of WRC-15 are known, we see no drawback for Ofcom to continue with its current position.

**Question 10: Do you agree that the 5 350 ? 5 470 MHz and 5 725 ? 5 925 MHz bands could provide important additional capacity for Wi-Fi and similar systems? If so, and noting the need to protect both earth observation satellites and radar systems, do you agree that sharing solutions should be considered at WRC-15? :**

Taking into account the results of the ITU-R JTG 4-5-6-7 meeting of June 2014 and the consequential draft CPM Report for Agenda Item 1.1, it is unlikely that a mobile allocation for the bands 5350-5470 MHz and 5725-5925 MHz will result from WRC-15. Nevertheless, we consider that studies should continue, especially for the preparation of the CEPT Report

in response to the Mandate of the Commission, in order to consider if the use of the bands for mobile broadband would be possible and under which conditions at an EU level.

**Question 11: Do you agree that we should oppose a co-primary mobile allocation at WRC-15 for the band 470 - 694 MHz?:**

While Alcatel-Lucent fully recognises that the use of the band 470-694 MHz by the mobile service is not possible in the short or even in medium term in the UK, we do not agree with UK opposition to a co-primary mobile allocation for this band at WRC-15.

An allocation to the mobile service does not oblige an Administration to authorise or deploy mobile applications in the band. What it does do is to give administrations the flexibility to make these political decisions at later stage. While the date of the political decisions will differ from country to country, we are of the view that a mobile allocation is necessary to ensure that the equipment ecosystem will exist when the time is right. The development of a global market and a robust ecosystem would clearly serve the interests of the EU and of consumers.

**Question 12: Do you agree that the UK should continue to support harmonisation of 694 - 790 MHz for mobile broadband and an out-of-band emission limit for protection of DTT reception in an ITU R Recommendation, alongside an acknowledgement that 694 MHz should be the lower frequency boundary for the band?:**

Alcatel-Lucent encourages Ofcom to continue to support the confirmation by WRC-15 of the allocation to the mobile service and the identification for IMT of the band 694-790 MHz for MBB, in line with the position of the vast majority of CEPT countries.

Alcatel-Lucent also welcomes Ofcom's supports for the harmonisation of the use of the band for MFCN within CEPT and EU, on the basis of a 2×30 MHz frequency arrangement (aligned with the lower duplexer of the arrangement developed by the APT) and the use of the duplex gap by SDL, with flexibility given to administrations to use part of the duplex gap for PPDR. We also consider that an OOBE limit for terminals of -42 dBm/8 MHz below 694 MHz is sufficient to ensure the protection of DTT receivers.

Concerning the band rest of the UHF band below 694 MHz, Alcatel-Lucent is of the view that the possibility for the implementation at later stage of mobile broadband should be considered, even if only for the long term. As indicated in our response to Question 11, Alcatel-Lucent would encourage Ofcom to support a co-primary allocation to the mobile service in the band 470-698 MHz in Region 1, which would help align Region 1 with Regions 2 and 3.

**Question 13: Do you agree that any harmonisation measures for PPDR use should be sufficiently flexible to enable PPDR agencies to choose the most appropriate spectrum solutions nationally?:**

Alcatel-Lucent agrees with Ofcom that the regulatory framework should preserve the right of administrations/PPDR agencies to decide on the use of dedicated, commercial, or hybrid

solutions. As providers of dedicated equipment for PPDR applications, we also consider that interworking between PPDR solutions developed in the different CEPT countries would be of benefit for the coordination of Public Safety operations between neighbour countries within CEPT and for pan-European operations.

If commercial mobile networks are used to provide PPDR, the choice of frequencies to be used for PPDR should, in principle, be left to the agreement between the PPDR agencies and the mobile operator. In this scenario, the design of Public Safety terminals should ensure the possibility of roaming with countries having implemented dedicated PPDR networks.

If dedicated PPDR networks are implemented, then it would be preferable to define harmonised frequency bands, or at least tuning ranges, in order to benefit from economies of scale to reduce the cost of implementation of such networks and to facilitate interoperability. Alcatel-Lucent is of the view that the best solutions for the development of dedicated networks are in the 400 MHz and 700 MHz bands, provided that, in the latter case, compatibility with mobile broadband can be ensured. We note that portions of the 700 MHz band are already included in Resolution 646 (WRC-12) for Regions 2 and 3.

Alcatel-Lucent would encourage Ofcom to consider whether it might be advisable to include some portion of the 700 MHz band for Region 1 in the Resolution, which is being revised under AI 1.3.

**Question 14: Do you have any comments on the potential use by the amateur service in the 5 250 to 5 450 kHz band?:**

Alcatel-Lucent has no particular view.

**Question 15: Do you agree that if any allocations to the fixed satellite service in the 10-17 GHz range impose undue constraints on existing services then further studies on the demand and justification for use of the spectrum would need to be carried out?:**

Alcatel-Lucent's position is that no additional constraints to fixed links deployment should result from new allocations to the fixed satellite service in 10-17 GHz. Alcatel-Lucent points out that fixed links are an important element to ensure backhauling of mobile network traffic, and that this resource should be maintained. Alcatel-Lucent is encouraged by Ofcom's interest in studies on the actual demand and use of spectrum for the fixed satellite service. This information could be useful in future studies.

**Question 16: Do you agree that the UK should support retaining the recognition for aeronautical radionavigation use, but equally support reviewing the limits associated with the FSS with a view to facilitating better use by the FSS?:**

Alcatel-Lucent has no particular view.

**Question 17: Do you agree that the UK should support new primary allocations for the fixed-satellite service in the 7/8 GHz bands, with the proposed restrictions?:**

Alcatel-Lucent's position is that no additional constraints to fixed links deployment should result from new allocations to the fixed satellite service in the 7/8 GHz band. Alcatel-Lucent points out that fixed links are an important element to ensure backhauling of the mobile network traffic, and that this resource should be maintained.

**Question 18: Do you agree that the UK should not support new allocations for the mobile satellite service in 22-26 GHz as they are not justified and that the focus should instead be upon the continued protection of the incumbent services?:**

Alcatel-Lucent agrees with this UK position, especially in view of the protection of microwave links in the 23 GHz and 26 GHz bands.

**Question 19: What are your views on the use of FSS spectrum allocations for UAS, recognising the shared regulatory responsibility and the safety considerations for the control of unmanned aircraft?:**

Alcatel-Lucent has no particular view.

**Question 20: Do you have any view on the need, or otherwise, to modify the restrictions that relate to the operation of ESVs in the bands 5 925 ? 6 425 MHz and 14-14.5 GHz?:**

Alcatel-Lucent does not support modification of the restrictions on ESVs operation in the bands 5925-6425 MHz and 14-14.5 GHz. One of the objectives of these restrictions was to protect fixed links from interference from ESVs. The restrictions should only be modified if studies have demonstrated that the protection of incumbent services can continue to be ensured.

**Question 21: What are your views on a potential new allocation to the maritime mobile satellite service, recognising the UK interest in the other services that make use of the bands under consideration?:**

Alcatel-Lucent supports the views of UK that existing services in the 7/8 GHz band should be protected and that no new allocation should be made to the maritime mobile satellite service in these bands.

**Question 22: Do you agree that the UK should not support a proposal for additional UHF spectrum for maritime on-board communications and that narrower channels will help to increase capacity?:**

Alcatel-Lucent agrees with the UK position of not supporting a proposal for additional UHF spectrum for maritime on-board communications.

**Question 23: What are your views on any necessary regulatory provisions for AIS in the bands already identified for maritime use?:**



Alcatel-Lucent has no particular view.

**Question 24: Where the appropriate radio regulatory provisions are established for use in existing aviation related bands, do you agree that the UK should support regulatory conditions for the accommodation of WAIC applications?:**

Alcatel-Lucent has no particular view.

**Question 25: Do you agree that the UK should support a generic radiolocation allocation in the 77.5-78 GHz band, where appropriate technical conditions are established?:**

Alcatel-Lucent is of the view that protection of the Fixed Service in the 71-76 GHz and 81-86 GHz band should not be affected by such an allocation. In other words, Alcatel-Lucent does not want the fixed services to be constrained by these allocations.

**Question 26: Do you agree that the UK should support an allocation across the 7 190 ? 7 250 MHz band, dependent upon the outcome of technical studies?:**

Alcatel-Lucent has no particular view.

**Question 27: Do you agree that is right to wait for the relevant sharing studies to mature before coming to a final position on the potential for additional allocations to the earth exploration-satellite (active) service in the 8/9/10 GHz band?:**

Alcatel-Lucent supports this position. It should be recalled that within the frequency range under examination, the bands 10-10.45 GHz and 10.5-10.68 GHz are allocated to the fixed service, respectively in Regions 1 and 3, and globally. CEPT has defined in CEPT/ERC Recommendation 12-05 a harmonised channel arrangement in the 10-10.68 GHz band. This Recommendation is implemented by 28 CEPT administrations, including UK. Therefore Alcatel-Lucent is of the view that the sharing studies should include the protection of fixed links operating in this band.

**Question 28: Do you agree that the UK should support the CEPT position that removes the distance limitation on space vehicles communicating with orbiting manned space vehicles, whilst retaining the pfd limit to protect terrestrial services?:**

Alcatel-Lucent has no particular view.

**Question 29: Do you agree that the UK should support maintaining UTC as currently defined (i.e. with the inclusion of leap seconds) and that the UK**

**should support further study around the concept of dissemination of two reference time scales?:**

Alcatel-Lucent has no particular view.

**Question 30: Do you have any comments on the UK approach and positions on the elements of Agenda Item 7?:**

Alcatel-Lucent has no particular view.

**Question 31: Do you agree that any potential regulatory constraints need to be fair and proportionate on both the Cospas-Sarsat operation and users in the adjacent band?:**

Alcatel-Lucent has no particular view.

**Question 32: Do you have any comments on Agenda Item 9.1.2 concerning reduction of the satellite co-ordination arc?:**

Alcatel-Lucent has no particular view.

**Question 33: Do you agree that the UK should oppose any proposal that aims at changing the provisions of the Radio Regulations in a way that gives inherent priority (i.e. coordination priority) to certain satellite systems over any other satellite system?:**

Alcatel-Lucent has no particular view.

**Question 34: Do you have any comments on Agenda Item 9.1.4 relating to updating the RR for out of date or redundant material?:**

Alcatel-Lucent has some sympathy with the CEPT position that such revisions of the RR should be made very carefully, in order to avoid the potential collateral effects of such changes.

**Question 35: Do you have any view on the need, or otherwise, for additional international regulatory measures to support the use of earth stations for aeronautical and meteorological communications in the 3.4 ? 4.2 GHz band?:**

Alcatel-Lucent considers the decision to use VSATs as an aid to the safe operation of aircraft and for the reliable distribution of meteorological information to be a national matter. Alcatel-Lucent is concerned, despite the fact that Resolution 154 (WRC-12) clearly recognized that "FSS is not a safety service", Issue 9.1.5 could be used to give the service a higher status.

Alcatel-Lucent would hope that the UK will be sensitive to any such efforts at WRC-15, as the UK currently has an IMT identification of the 3.5 GHz band under No. 5.430A.

**Question 36: Do you agree that the UK should not support any change to the fixed and mobile definitions under Agenda Item 9.1.6?:**

Alcatel-Lucent agrees with the UK that no change should be made to the current definitions of the fixed and the mobile Service.

**Question 37: Do you have any views on the CEPT position that no further work is required in respect of spectrum management guidelines for emergency and disaster relief radiocommunications?:**

Alcatel-Lucent has no particular view.

**Question 38: Do you agree that no specific measures need to be introduced for nano and pico-satellites and that the current approach to their regulation is sufficient?:**

Alcatel-Lucent has no particular view.

**Question 39: Do you agree that the UK should support the recent regulatory developments with respect to ESOMP operation, while continuing to monitor developments?:**

As ESOMP consists of the operation of stations on "Mobile Platforms" under a fixed satellite service (FSS) allocation, the current techniques and rules used to guarantee the co-existence between FSS and fixed service (FS) stations in frequency bands allocated to both services may no longer be applicable. Therefore, the operation of ESOMPs may restrict the possibility to continue to deploy fixed service links in these bands in the future.

Alcatel-Lucent is of the view that restrictions should apply to the operation of ESOMP under FSS allocations in order not to modify the balance between FSS and other co-primary allocations in a given frequency band, and to preserve the possibility to continue to deploy FS links in these bands.

**Question 40: Do you have any comments on Agenda Item 9.3 considering Resolution 80?:**

Alcatel-Lucent has no particular view.

**Question 41: Do you have any comments concerning the standing agenda items?:**

Alcatel-Lucent has no particular view.

**Question 42: Do you have any comments regarding UK positions for future WRC agenda items?:**

Alcatel-Lucent contributed to the development of the UK proposal to consider mobile broadband in frequency bands above 6 GHz in the IFPG PTD Correspondence Group and, as such, supports the UK position.

Alcatel-Lucent encourages Ofcom to consider methods to limit the scope of the future agenda item in order to make the work more manageable. Among options that could be considered are:

1. Limiting the bands to be considered to those already allocated to the mobile service on a primary basis
2. Limiting the range to be considered to something like 20-50 GHz, and
3. Specifically avoiding spectrum that is used for the fixed service, as these microwave backhaul links will be required to support the IMT traffic

**Question 43: Are there any other possible agenda items you wish to see addressed by future WRCs?:**

Based on the draft CPM text produced by Joint Task Group 4-5-6-7, Alcatel-Lucent now foresees it to be unlikely that new allocations to the mobile service in the 5 GHz range be provided at WRC-15. Therefore, such allocation could be considered again at WRC-19, depending on further progress in sharing and compatibility studies, and after due consideration of the conditions under which such allocation would likely be obtained. Such new allocation would facilitate the introduction of very broad channels, but at the risk that the use of some frequency bands, e.g. the 5.8 GHz band, becomes subject to more stringent technical and operational requirements than those currently in force in countries like the US or UK.

In addition, Alcatel-Lucent believes that, in case WRC-15 does not allocate 470-698 GHz in Region 1 to the mobile service, WRC-19 should have a specific agenda item dedicated to allocation of this band to the mobile services.

**Question 44: Are there particular frequency bands, above 6 GHz, that should be considered for technical study in relation to the potential future agenda item addressing IMT use?:**

Alcatel-Lucent is of the view that the studies should focus on the frequency range 20-50 GHz.