

techUK response to DCMS consultation on Implementing the European Electronic Communications Code

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About techUK

techUK represents the companies and technologies that are defining today the world that we will live in tomorrow. Around 850 companies are members of techUK. Collectively they employ approximately 700,000 people, about half of all tech sector jobs in the UK. These companies range from leading FTSE 100 companies to new innovative start-ups. The majority of our members are small and medium-sized businesses.

Executive Summary

Given the scope of the questions asked by Government, techUK is submitting a response to the consultation on Implementing the European Electronic Communications Code. Our response, which has been developed in discussion with the techUK membership, is focused particularly around spectrum related issues.

Answers have been bulleted should Government wish to discuss any part of the response. techUK would welcome further engagement on any of the points raised in this submission.

Response

Questions

- 1. We propose that Ofcom's regulatory actions must reflect the benefits of future-proof networks. To what extent does this approach support objectives set out in the Future Telecoms Infrastructure Review, for 15 million premises to be connected to gigabit-capable networks by 2025, with nationwide coverage by 2033, and 5G deployment to the majority of the country by 2027?**
 - techUK supports this proposal, including that the physical characteristics and architectural features of different technologies must be reflected in regulatory actions
- 2. We propose that Ofcom must conduct an annual forecast of near and medium-term broadband network reach, which it will have to publish to the extent that it is non-confidential. What are the main benefits and risks this presents to accelerating the pace of commercial broadband network roll-out?**
- 3. We propose that Ofcom must share with Government all information that it collects through the survey and forecast process of article 22 of the EECC. What should Government take into account when implementing this requirement?**
- 4. We propose that Government has the power to designate areas where there is no planned coverage of gigabit-capable networks, and clarify deployment plans in these areas, per the process set out in article 22 of the EECC. To what extent do you agree that this will provide the right tools for Government to address problems associated with investment hold-up in areas where the business case for gigabit-capable network investment is uncertain?**

5. **Article 29 of the EECC would enable the relevant authority to impose penalties on providers that knowingly or grossly negligently provide misleading, erroneous or incomplete information when invited to declare an intention to deploy in a designated area and does not provide objective justification for a change of plan. How do you think the prospect of penalties will affect how providers act when invited to declare their intentions?**
6. **How much would it cost to businesses to familiarise themselves with the access provisions?**
7. **How much would businesses save as a consequence of longer market review periods?**
8. **How much does it cost for businesses to comply with the current network mapping requirements by Ofcom?**
9. **How much would it cost to business to forecast their future network plans?**
10. **What is your estimate on the number of premises in the hold-up areas?**
11. **What would be the size of the investment required to deploy fibre in the hold-up areas?**
12. **Do you have views on the appropriate competent authority for different spectrum management tasks?**
 - techUK considers that Ofcom is well placed to undertake the spectrum management tasks required by the EECC. techUK would be interested to comment on any specific proposals that the Government may identify on any different arrangements that may be contemplated.
 - There is a need for joined up policy on Spectrum between Government and Ofcom and to ensure that Ofcom is focused on the interests of UK businesses as well as consumers. The ability for Ofcom to be Directed and influenced by Statements of Strategic priorities is one way to help achieve this.
 - Additionally, we encourage DCMS when developing strategic policy priorities to consult across Government Departments (e.g. BEIS) and regulators (e.g. Ofgem and Ofwat), plus Industry and CPNI users to ensure alignment.
13. **Do you think that a 'use it or lose it' mechanism would promote spectrum trading, prevent underutilisation, enhance mobile coverage and/or mitigate barriers to entry?**
 - techUK believes that a 'use it or lose it' mechanism could be a useful tool, if market-based mechanisms weren't available. But in the UK, secondary trading and leasing (although Ofcom currently prohibits leasing for mobile spectrum) are established market-based mechanisms, plus Ofcom has recently proposed issuing (extendable) short-term licences in mobile spectrum where spectrum has been assigned nationally but is unused at that location and Ofcom knows of no plans by the spectrum licensee to bring that spectrum into use. This recent Decision has considerable potential to bring into usage mobile spectrum (including for fixed wireless access) in areas with no current mobile reception.

- Outside of mobile spectrum, Arqiva leasing Airwave some of its 412 MHz spectrum is an example of established market-based mechanisms working.
- It is important to avoid that the possible inclusion of “use it or lose it” obligations in new licences would in practice result in some perverse outcomes and achieve the opposite of what Government wants to achieve.
- techUK agrees with the position that Ofcom has previously taken on this question in terms of the risks that such obligations would have in relation to:
 - (i) adverse effects on incentives to invest;
 - (ii) difficulties to define required level of use; and
 - (iii) there may be legitimate reasons for a delay between licence acquisition and commercial rollouts. For example, in 2007 Arqiva purchased a considerable quantity of 28 GHz spectrum to support a WiMax network it expected to be contracted to build, although subsequently no WiMax network was built in the UK. Arguably if the primary market were less “lumpy” Arqiva wouldn’t have felt the need to bid in the relevant spectrum auction as, at that point, it hadn’t been contracted to build the network which that spectrum was intended to support. But Arqiva has subsequently purchased additional 28 GHz spectrum to support 5G Fixed Wireless Access, a business opportunity which would have been much harder for Arqiva to address had they been required, under a ‘use it or lose it’ mechanism, to dispose of their original purchase of 28 GHz after, say, 5 years of inactivity.

14. In relation to any ‘use it or lose it’ mechanism, what do you consider would be the best measure of the ‘level of use’ of spectrum? Beyond ‘level of use’, what other conditions should be considered when designing a ‘use it or lose it’ mechanism?

- techUK notes that it can be difficult to define appropriate required level of usage, which is when/why a “use it or lose it” obligation may not be appropriate.

15. Do you agree with our preferred approach for ‘use it or lose it’ to be applied to future mobile spectrum licences only? If no, please provide any supporting evidence.

- The EECC gives the option for “use it or lose it” to be used with all licences but does not require this for any specific type.
- Mobile licences that are awarded using a market-based mechanism are arguably less of a sensible candidate than other licence categories.
- techUK does not advocate “use it or lose it” for new mobile licences but supports “use it or share it” using market-based mechanisms, or where there would be market failure Ofcom’s recent Decision to offer overlay licences would be a more appropriate approach.

16. If you hold licences in the 26 GHz spectrum band, what do you expect the cost of sharing by 2022 to be? (Please specify cost for both sharing or clearing.)

- The use of 26GHz for fixed links has been decreasing recently in the UK, with Ofcom licences reducing from 2800 to 1800 in the last couple of years. Other European countries, however, have not seen such a significant reduction.
- The 26GHz band currently offers an important fixed link band for industry, and with other services in the band it is important that Ofcom and Government recognise its importance to a wide range of business uses. This

has been acknowledged by the Radio Spectrum Policy Group¹ in recommending that the amount of this spectrum made available to the Mobile service should be limited in the short-medium term to e.g. 1 GHz, subject to demand being demonstrated. The new European Electronic Communications Code (EECC) also calls for at least 1GHz to be available for mobile 5G by 2020.

- With there are several alternative fixed links bands currently available, for clearance (with adequate compensation) to be a viable option to sharing, notwithstanding the large benefits of 26GHz for 5G that DCMS has identified in its impact assessment, there would need to continue to be a range of spectrum bands available to support fixed links going forwards.
- The European Commission Decision 2019/784² designates the whole 26GHz band for wireless broadband in its Article 1 but provides for continued operation of Fixed Links in its Article 4 if they can share with Wireless Broadband.
- In advance of significant market demand for 5G use of 26GHz emerging, a UK-wide clearance of the entire 26GHz band would be disproportionate, particularly if the band were only subsequently to support 5G in dense urban areas and / or in-building with the remainder of the country then unavailable for fixed link use.
- The cost of sharing is difficult to judge at this stage as it would be a function of how widely the 5G systems would be deployed, but if as has been noted above their deployment is limited to dense urban areas **only** then the actual cost may be modest.
- We are supportive of releasing 1GHz in the short-term for mobile with further spectrum in due course, subject to the proposed caveats.

17. Is there a market demand for the 26 GHz band for 5G? (yes/no) If yes, please provide any supporting evidence and give an indication of timing.

- The 26GHz band is available in 5G chipsets and is a standardised band in 3GPP. Commercial 5G devices (smartphones, CPE, tablets etc.) supporting the band are expected to be released in Europe in 2019.
- This is a 5G pioneer band identified on a European basis, and there is evidence of demand from other parts of the world where this spectrum (or equivalent) is available. When 26GHz spectrum becomes available in Europe we would expect use cases to be identified.
- However, it is unclear how quickly market demand for 5G in the 26 GHz band may emerge, or how widely that demand may be spread. We note that the RSPG, informed by extensive consultation with industry, back in January 2018 was cautious in terms of the scale of deployment by only recommending that 1 GHz of spectrum be given over to 5G subject to demand being demonstrated. The subsequent EC Decision of 19 May 2019 is more bullish in terms of the availability of the whole band for 5G at some point; we note and agree with the caveats proposed in DCMS's options.

18. What do you estimate the total value of making available the 26.5-27.5 GHz spectrum band for 5G services in the UK to be?

- techUK has not undertaken any calculations but notes that even if the value is a small fraction of that assumed in the draft DCMS Impact Assessment

¹ RSPG18-005 FINAL, RADIO SPECTRUM POLICY GROUP, STRATEGIC SPECTRUM ROADMAP TOWARDS 5G FOR EUROPE, RSPG Second Opinion on 5G networks, Brussels, 30 January 2018

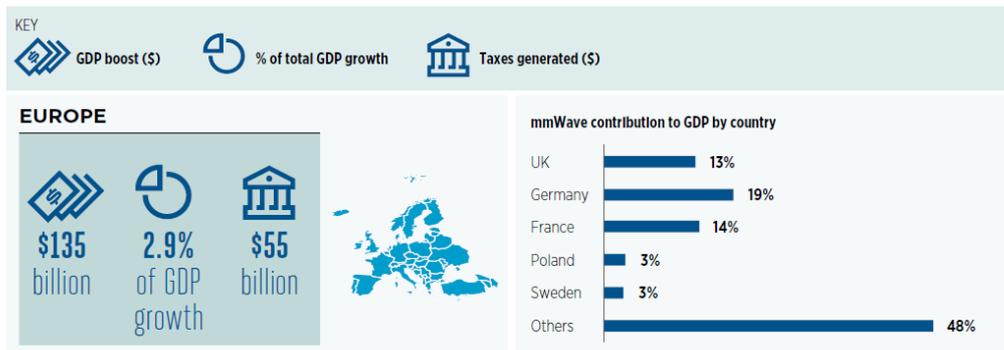
² http://www.legislation.gov.uk/eudn/2019/784/pdfs/eudn_20190784_adopted_en.pdf
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there is an overwhelming case to make some of it available for Mobile in the short-medium term.

- The GSMA has commissioned a socio-economic benefit analysis of mmWave spectrum which includes the UK. This report, by TMG, estimates that mmWave will contribute around \$135 billion increase in European GDP by 2034 of which 13 percent of this is the UK, as shown in the figured below from aforementioned report:

(<https://www.gsma.com/spectrum/resources/mmwave-5g-benefits/>)

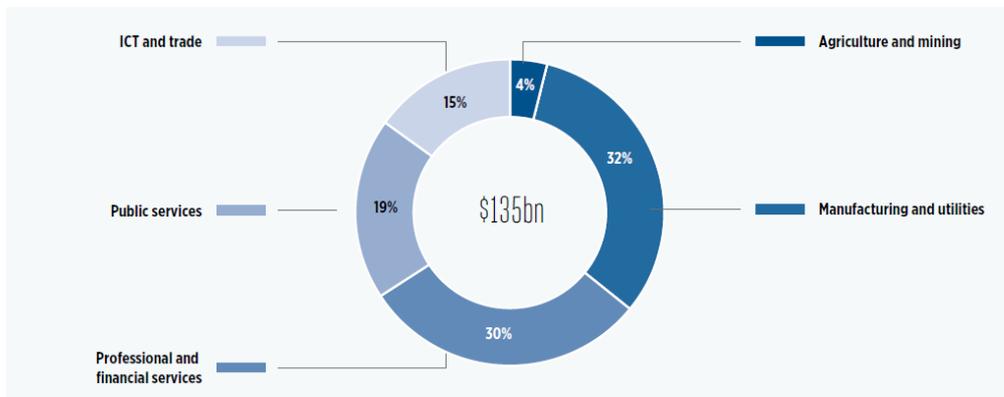
FIGURE 25. MMWAVE CONTRIBUTION TO GDP (BY SELECTED COUNTRY SHARE) AND TAX REVENUE COLLECTED IN EUROPE, 2034



Source: TMG.

As with other regions, the manufacturing and utilities sector is expected to contribute the largest share (32%) of the overall cumulative GDP contribution of \$135 billion (see Figure 26).

FIGURE 26. STRUCTURE OF GDP CONTRIBUTIONS BY VERTICAL IN EUROPE, 2034



Source: TMG.

- However, the forecast GDP uplift would result from the use of all 5G mmWave spectrum, not just 26 GHz. In addition to any benefit, we should also have regard to the potential cost and disruption to incumbent services.

19. What do you estimate the total value of making available the whole 26 GHz spectrum band for 5G services in the UK to be?

- techUK considers that the value of making all the 26GHz available rather than just 1GHz should enable better services to be delivered to consumers and would tend to support competition between providers.
- Even if the increased value of the larger amount of spectrum is not directly proportional to the increased bandwidth, it would be very substantial compared to the increased costs of sharing/redeployment of existing services.
- However, the total value derived is unquantified, it is simply asserted that it would exceed the increased costs of sharing / redeployment of existing

services.

20. Under what circumstances should roaming obligations be imposed to improve coverage or support network deployment?

- Roaming under commercial arrangements can be a deployment stimulus that leads to improved coverage in some circumstances. In contrast, mandated roaming that results in financial uncertainty for the deploying operator provides a disincentive to invest in new infrastructure.

21. What is the impact of setting minimum durations for individual rights of use given anticipated UK market developments?

- This would be a retrograde step. techUK advocates indefinite licences with ability to trade/lease.
- This is a common approach in other jurisdictions and perhaps Ofcom should seek guidance from National Regulatory Authorities that adopt this approach. Perhaps there is merit in adopting minimum durations appropriate to rate of technology development and hence 15 years minimum periods may be appropriate for Mobile Spectrum access in keeping with the existing initial term.

22. How much would it cost to businesses to familiarise themselves with the spectrum provisions in the EECC?

23. Do you agree with our assessment that the requirements of this Article are unlikely to have a significant impact on communication providers in practice? If you do not agree, could you set out the impact that it is likely to have, particularly the potential costs to communication providers of compliance, including whether differences in the costs/risks of providing cross-border access to networks/services would not be objectively justified?

24. Do you agree with our proposal to implement article 99 directly into UK law and for Ofcom to be given the powers to enforce this obligation?

25. Do you agree with the Government's proposal for Ofcom to set up a comparison tool to comply with article 103(2), which will not require new legislation, in the unlikely event that a single comparison could not sign-up to Ofcom's voluntary accreditation scheme, that will be amended to comply with article 103(2)?

26. Do you agree with the Government's approach to implementing Article 107 by granting an express power to Ofcom to enable it to regulate communication bundles which include non-communication services?

27. Are there any other legislative changes that you think might be needed? If so, please specify these and provide any supporting information.

28. Do you agree with the Government's assessment that the potential for Article 107 to create 'regulatory clash' is limited at the current time? If not, please provide evidence and any views on how these could potentially be addressed.

29. Do you agree that it should continue to be for Ofcom to consider affordability as part of the broadband USO and, if they identify an

issue, to take the appropriate action, e.g. through the implementation of a special tariff?

30. Do you have any concerns about any of the articles not explored in this consultation document? (Yes/No/Don't know) If yes, what are your concerns?