ICE Green Paper: Infrastructure Client Group

Call for Evidence: COVID-19 and the new normal for infrastructure systems

Evidence from Mobile UK

June 2020

About Mobile UK

1. Mobile UK is the trade association for the UK's mobile network operators - EE, Telefonica UK (O^2), Three and Vodafone. Our goal is to realise the power of mobile to improve the lives of our customers and the prosperity of the UK.
2. As mobile increasingly becomes the device of choice for running daily life both at home and at work, customers have come to expect more extensive coverage, more capacity and greater capabilities. Our role is to identify the barriers to progress, and work with all relevant parties to bring about change, be they government, regulators, industry, consumers or citizens more generally.

Introduction

1. Mobile UK welcomes the opportunity to respond to the ICE's Green Paper Call for Evidence: COVID-19 and the new normal for infrastructure systems.
2. Mobile UK is pleased that the ICE has approached the recovery phase of the pandemic in a manner which looks to the future and the actions required now to ensure that the country and its critical infrastructure is best placed to maximise the opportunities that occur and minimise the risks and threats associated with a prolonged recession. It is essential in taking evidence from a broad basis of infrastructure stakeholders the policy landscape is fully considered to ensure that vital reforms and decisions are not delayed that could impact on infrastructure delivery now an in the future.
3. Mobile operators are committed to meeting the rising demand from customers for more capacity and coverage throughout the UK. Our ability to deliver is dependent on many factors and stakeholders across government and beyond: the devolved nations; Local Authorities; metropolitan mayors; Local Enterprise Partnerships; landowners; and infrastructure providers. All have a contribution to make to ensure a positive environment for the rapid deployment of further mobile infrastructure.

Mobile UK Response Overview

4. Mobile UK welcomes the approach the ICE has taken towards looking forward and beyond the pandemic for the nation's infrastructure. It is vitally important that measures are taken now to ensure that reforms required to assist the recovery are implemented during this period and not delayed.
5. Mobile UK notes that while the Call for Evidence references the need to develop the next generation of internet connectivity it does not mention mobile networks, or indeed 5G, explicitly and instead focusses on fixed broadband networks.
6. The UK's Mobile networks have been at the core of keeping the UK's economy going throughout the pandemic, maintaining family connections, enabling homeschooling and working and supporting critical infrastructure such as the NHS.

7. The lock-down has had a significant impact on the UK economy and society. This has manifested itself in a physical movement away from centralised workplaces to remote working and as a result, has placed challenges on the mobile industry to maintain resilience and capacity. These have been managed well, and the networks have held up. It is now expected that much of these changes are unlikely to be ever fully reversed.

8. It is now essential to ensure that in this 'new normal' policy reflects the changes experienced and pivots towards digital infrastructure.

9. Mobile UK believes the following changes across a broad range of policy must be considered by as part of the ICE's discussion looking at the UK's digital infrastructure. We believe that the ICE's support for these recommendations would be a positive step in creating the right environment for mobile operators to assist in enhancing and expanding mobile connectivity across the UK:

    a. Mobile infrastructure policy needs **a much more sophisticated approach that understands the competitive nature of the mobile telecommunications market and competing demands on operators**, taking into account the new normal and especially in harder to reach areas, and that sets out a clear framework that incentivises investment and engages with mobile operators as partners.

    b. **Further reform to planning regulations for telecommunications apparatus**, including expediting enhancements to Permitted Development Rights, and the removal of discrepancies in the regimes between fixed and mobile infrastructure.

    c. **Reform of the strategic planning framework** is required so that all Local Authorities make specific reference to mobile connectivity in strategic plans, local industrial strategies and Local Plans. Providing this political leadership will bring together the disparate arms of local government to create a supportive environment for mobile investment.

    d. **Wider adoption of the reformed Electronic Communications Code** (whereby providers pay similar rates to power and water companies to occupy land).

    e. **All public bodies, such as Local Authorities, should formally confirm that they will make available their assets (such as rooftops) for mobile apparatus,** on standard terms and at a cost based on the reformed Electronic Communications Code.

    f. Reform to planning regulations for housing and other construction, requiring developers to make **greater provision for electronic communications.**

    g. Make marginal investment more viable with **business rates exemptions,** especially in harder to reach areas.

Response to Questions

Question 1: What other factors, or combination of factors, will determine attitudes to public life as we transition to a new normal?

10. The COVID-19 outbreak has reshaped society and the economy, as shown by increased levels of network usage and changed patterns of behaviour. This effect is unlikely to be fully reversed.

11. The most visible immediate impact of COVID-19 and the associated lock-down on the mobile sector has been the very rapid acceleration of patterns of usage and behaviour that have been emerging over many years, most notably:

    - Increased working from home;
    - Increased online shopping/home delivery;
    - Increased consumption of online entertainment; and
    - Increased use of video-conferencing platforms for work and consumer use, including NHS

and other vital services.

12. Anecdotally, many employers have been surprised at how well productivity has held up during home-working. And many employees have welcomed the reduction in travel and the extra flexibility that home-working allows, (even roles which rely on large corporate systems - such as some call centre functions - have found working from home feasible.)

13. In addition to these changes in behaviour, the lock-down has seen the emergence of online home learning and online/video patient consultations. While the former is never going to be a substitute for attendance at school, there is plenty of scope for using more online tuition and training for the older school-age groups.

14. On-line will also play a substantial role in General Practice, particularly with high-risk patient groups for whom visits to a GP surgery and exposure to Coronavirus is likely to be an ever-present risk for some years. The government's independent adviser on climate change has advocated a switch away from investment in physical towards digital infrastructure1. Employers can be expected to have a more positive and flexible attitude towards staff working from home, and this will improve work/life balance and will make the rural economy, particularly, more sustainable.

15. The outbreak has seen a broader transformation in the range of services becoming available online to many disabled customers, such as more university courses, the National Theatre and other cultural organisations. There is an optimism that we are all better understanding of the barriers that many disabled people face.

16. These factors have resulted in significant rises in mobile (and fixed) network traffic. For example, Vodafone stated that in the two weeks to 25th March, their business saw a 30% increase in mobile and fixed internet traffic and a 42% increase in mobile voice traffic – a substantial and rapid increase over a short period, which networks have coped very well. Unsurprisingly, there has been a considerable increase in the use of video conferencing platforms.

17. It is improbable that these increases in usage and changes in patterns of behaviour will be entirely reversed once 'normal' life returns. Collectively we will experience a step-change in our adoption of digital habits.

18. The 'new normal' will be an ultra-connected world underpinned by the networks operated by the mobile operators.

Question 2: What other systemic changes, driven by lessons learned during the lock-down period, can we expect to be important as part of the new normal?

19. During the outbreak, the UK's digital networks have been at the core of keeping the economy going, keeping families connected, and supporting critical infrastructure such as the NHS.

20. All mobile operators have experienced significant and rapid increases in traffic, alongside shifts in the patterns of usage. Overall, networks proved highly resilient and well able to cope with the increased load.

21. The outbreak has had an impact on all customers. For some, it has been devastating. The industry has responded with agility and speed to support vulnerable consumers, the NHS and education sector.

22. While the adverse impact on the mobile sector was considerably less than on some, our situation has been very far from 'business as usual'. It has required rapid redeployment of resources to focus on issues arising from the outbreak.

23. It has not been business as usual in terms of retail and sales more generally either. A weak

[1] https://www.bbc.co.uk/news/science-environment-52371140

economic outlook will present added pressure margins and return on investment.

24. Cooperation and coordination between industry and government has been effective during the outbreak. The industry has supported the government by connecting Nightingale hospitals, data insights (e.g. for repatriation planning) and public health messaging (an SMS to all mobile users – 95% of the population).

25. The government and the police have also been very supportive to the industry in combatting matters arising from the 'fake news' link between Coronavirus and 5G (which resulted in about 100 masts being burnt and telecoms workers being intimidated and abused).

26. This level of cooperation between industry, the government and the regulator has proved highly effective, and measures should be taken to solidify new and existing lines of communication.

Question 3: Are our assumptions of the new priorities for infrastructure correct?

27. Mobile operator's resources have been severely diverted and depleted by the COVID-19 outbreak. The implementation of some vital regulatory measures must be re-scheduled to reflect this reality so that we can continue to support vulnerable customers and critical infrastructure.

28. At a national level, policy must place a much stronger emphasis on the country's fixed and mobile broadband networks. In responding to this Call for Evidence, it is concerning that the focus on digital connectivity within the document failed to mention either mobile connectivity or the role of 5G in next-generation mobile networks.

29. 5G has the potential to transform UK productivity and prosperity radically. In some cases, the potential of 5G has been likened to the fourth industrial revolution. It is a true game-changer technology that will provide the underlying wireless infrastructure to support a host of new applications such as connected cars, virtual and augmented reality and the foundations for emerging smart city and Internet of Things (IoT) technologies. Its principal features include:

    - **Faster download speeds:** 5G will provide much faster speeds than are achievable with today's 4G networks. 5G is expected to provide speeds between 1GBps and 10GBps. This would mean a full HD movie could be downloaded in 10 seconds as opposed to 10 minutes today.
    - **Lower Latency:** 5G will also have significantly lower latency meaning very little lag (or buffering), with reaction times faster than the human brain. This will enable applications that simply aren't possible today, such as multiplayer mobile gaming, factory automation, and other tasks that demand quick responses.
    - **Greater Capacity:** 5G will also have vastly greater capacity so that networks can better cope with not only the rapidly increasing data demands of customers today but the growth of high-demand applications being planned in the future.

30. The Future Communications Challenge Group has estimated that the economic impact of 5G on the UK could be around £112bn in 2020 per annum, rising to £164bn in 2030, [1] In other words about £2,500 per head of population.

31. The digital economy will be the engine that drives a return to growth. To repeat, it is improbable that the changes in behaviour seen during the outbreak – more working from home, more online shopping, more remote GP consultations - will be fully reversed.

32. The objective now should be to implement meaningful planning reforms maximising opportunities now at an early stage of 5G deployment, so that they have a real practical impact on the economic recovery.

Question 4: What other changes to infrastructure provision will be needed, and what assumptions sit behind that need?

33. The main lessons from the COVID-19 crisis are a) that UK's mobile (and fixed) networks can perform well under considerable pressure and b) that the diversity (and competitive) range of providers in the UK market served the country well during the outbreak. While the humanitarian element added a collective sense of urgency, the speed and agility shown by all to adapt tariffs and other policies to the new reality was remarkable.

34. There will also need to be a discussion between the government and regulators on the broader question of regulatory forbearance in the aftermath of the outbreak. There must be an explicit recognition of the significant disruption caused both by the actions taken for specific groups but also by the depletion of the operators' workforce, resources and other pressures. This is a subject that will need to be looked at carefully, as the full consequences of COVID-19 become clear.

Question 5: Have we made the correct assumptions on the changes in delivery that will be required to deliver infrastructure as part of the new normal?

35. This COVID-19 pandemic presents unexpected opportunities to realise more quickly long-held ambitions in some significant policy areas, such as getting to net-zero carbon emissions, better work/life balance, more accessible services for disabled customers and rebalancing the economy into the regions.

36. As a result, digital infrastructure will become much more central to our national life. The digital economy will be the engine of growth to lead the revival of the broader UK economy.

37. Policy must now reflect this and pivot towards digital infrastructure, with urgent reforms to planning regulation, fiscal measures to promote investment, and action to ensure reforms enabling operators to access land become effective.

38. These objectives should be pursued now so that mobile operators can work in a much more 'pro-investment' environment when social distancing guidelines start to lift and network rollout can continue – including the Shared Rural Network programme and also 5G.

39. In sum, it is no exaggeration that through this COVID-19 outbreak, we have all come to realise how critically important our digital infrastructure is.

40. Without resilient fixed and mobile broadband networks, the dent in the UK's economy would have been considerably higher.

41. All these factors reinforce the need for more investment in digital infrastructure and thus the need for a much more favourable investment environment to encourage it.

42. Mobile UK believes the following changes across a broad range of policy must be considered by as part of the ICE's discussion looking at the UK's digital infrastructure. We believe that the ICE's support for these recommendations would be a positive step in creating the right environment for mobile operators to assist in enhancing and expanding mobile connectivity across the UK:

    a. Mobile infrastructure policy needs **a much more sophisticated approach that understands the competitive nature of the mobile telecommunications market and competing demands on operators**, taking into account the new normal and especially in harder to reach areas, and that sets out a clear framework that incentivises investment and engages with mobile operators as partners.

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    c. **Reform of the strategic planning framework** is required so that all Local Authorities make specific reference to mobile connectivity in strategic plans, local industrial strategies and Local Plans. Providing this political leadership will bring together the disparate arms of local

government to create a supportive environment for mobile investment.

d. **Wider adoption of the reformed Electronic Communications Code** (whereby providers pay similar rates to power and water companies to occupy land).

e. **All public bodies, such as Local Authorities, should formally confirm that they will make available their assets (such as rooftops) for mobile apparatus,** on standard terms and at a cost based on the reformed Electronic Communications Code.

f. Reform to planning regulations for housing and other construction, requiring developers to make **greater provision for electronic communications.**

g. Make marginal investment more viable with **business rates exemptions,** especially in harder to reach areas.

43. These objectives, furthermore, must be pursued now, so that mobile operators can be working in a much more 'pro-investment' environment when the lock-down is relaxed and network rollout can continue – both on the Shared Rural Network programme and also 5G.

44. 5G networks will not only deliver the added capacity that increased mobile traffic requires; they will also support the new needs of a post-outbreak world; a world in which COVID-19 is likely to remain a threat, a world where there is more working from home, lower carbon smart cities and more IoT applications to help mitigate the risk of a COVID-19 crisis recurring.

Question 6: What are the intermediate steps required to move us towards these new approaches to delivery?

45. Mobile UK has been pressing for some relatively modest measures to promote investment in digital, for example:

- Reform of Permitted Development Rights for mobile infrastructure (where we are still waiting for the government to publish its response to the consultation carried out in October 2019);
- Business rates holidays for new mobile infrastructure; and
- Wider adoption of the reformed Electronic Communications Code (whereby providers pay similar rates to power and water companies to occupy land).