

## **CBI RESPONSE TO DCMS CONSULTATION ON THE DIGITAL COMMUNICATIONS INFRASTRUCTURE STRATEGY**

1. The CBI welcomes this opportunity to respond to the DCMS consultation to inform its upcoming Digital Communications Infrastructure Strategy (DCIS). To inform this response we have consulted with members across sector, size and geographical location as well as referencing our work in *Let's Get Digital!*<sup>1</sup> in which the CBI called for a cross-party and cross-departmental strategy for the long-term delivery of communications network infrastructure in the UK. The CBI would be pleased to discuss this response in person, and to provide more case study examples in addition to those captured in this paper.
2. Technology, and therefore digital connectivity, is essential for businesses to grow and compete in the modern business environment. From communicating with customers in new and exciting ways, to opening the door to global markets; optimised online platforms, payment methods and use of mobile technology have revolutionised the ways in which we do business. Digitalisation is the electrification of the 21<sup>st</sup> century, and businesses have started to refer to internet connectivity as the 'fourth utility'. Digital infrastructure is fast becoming as important to businesses and consumers as electricity in the walls and water coming out of the tap; any strategy will need to prioritise it alongside traditional infrastructure classes.
3. To ensure that our network capabilities meet our needs as technology continues to develop, a long-term government strategy is crucial to encourage private sector investment in UK network infrastructure. To achieve this, the government must not preoccupy itself with speculation regarding specific technologies and guess work about how the landscape will unfold. Instead, it should seek to create an environment in which private sector investment is viable so that marketplace innovations can thrive with limited government intervention. Allowing the market to deliver the best possible access and speeds available at any given time can only be done by reform to the policy and regulatory landscape and not through targets based on speculative scenarios.
4. There is, in addition, a role for government in boosting *demand* for services, in parallel to private sector investment in *access* to networks. This is best achieved by taking a joined-up and cross departmental view of digital skills in the education system and the market place, funding for small and medium sized enterprises and promotion of initiatives that will boost business and consumer uptake of superfast capabilities.
5. In summary, this response:
  - **Outlines the importance of digital connectivity (fixed *and* mobile) to businesses across the UK, and their requirements**
  - **Details the challenges presented to the telecommunications sector by a fragmented regulatory and policy environment, making the case for a reformed business environment to promote long-term investment and innovation**
  - **Proposes a role for government in the stimulation of demand and uptake of digital technology and connectivity in the business community**

<sup>1</sup> [http://www.cbi.org.uk/media/2143865/lets\\_get\\_digital.pdf](http://www.cbi.org.uk/media/2143865/lets_get_digital.pdf)

## Access to consistent & reliable communications infrastructure is crucial for businesses of all sectors and size

6. The rapid technological advancements of the last 10-20 years have revolutionised the ways in which businesses deliver products and services to their customers, and refine their own operations. As such, the importance of the 'digital economy' and digital connectivity is no longer terminology reserved for 'tech' industries, but is synonymous with the broader economy. Being 'digital' has the potential to unlock a broad range of economic benefits for a rapidly growing online consumer base, creating job opportunities for those with digital know-how and supporting our innovative and high-growth industries.
7. Thinking about what businesses and consumers need from digital infrastructure will be key to formulating plans to boost uptake of services (providing all-important returns on investment in network infrastructure), and on appropriately targeting funding. From dairy farmers to construction companies, our businesses are reliant on access to the internet to operate in the modern business environment. With increasingly more services and processes being automated online, the resounding message from the business community is that resilient and robust internet connectivity is absolutely essential. According to the CBI's 2013 Infrastructure Survey<sup>2</sup>, alongside transport, digital connectivity is the top priority when choosing investment locations, with 80% of respondents identifying its significance in investment decisions. Furthermore, more than four fifths of companies view faster and more reliable fixed-line and mobile broadband (85% and 84% respectively) as critical to their future success. Clearly, connectivity is a key part of the solution to rebalancing growth around the UK, with reliable infrastructure making certain parts of the country more attractive than others. As **exhibit 1** illustrates, ineffective digital networks can be a barrier to businesses being able to operate as easily in certain parts of the UK.

### **Exhibit 1. Francis Clark LLP**

**About:** An accountancy firm based in the South West of England, providing specialist professional services to clients in the South West, London and the rest of the UK. 450 members of staff and an annual turnover of £25mn spread across 7 offices.

**Requirements:** The business is increasingly requiring staff and consultants to be mobile in their approach to work, being in transit or on site with clients. Efficiencies are also being sought to reduce carbon footprint and operating costs by going paperless and using digital meeting options such as video conferencing.

**Challenge:** Lack of even 3G connectivity on major transport routes and train lines makes online working and contact impossible, which leads to a substantial amount of 'dead' time for staff whose time is often expensive. Fixed connectivity issues affect ability to hold video conferences, or to even supply basic Wi-Fi to visitors. There is a thriving business community in the South West, with regional growth and reputation hinging on connectivity that clients and customers have come to expect elsewhere, and the region needs better connectivity to compete.

8. Whilst businesses would like to see overall faster internet speeds, given the choice between speed and reliability, the majority of CBI members would like the emphasis of infrastructure roll-out to be on the widespread delivery of *consistent* services – particularly in less built up areas – rather than a blanket focus on superfast speeds. Even for more traditional office-based businesses, reliability of access and the robustness of infrastructure is critical; potential revenues lost due to downtime caused by inconsistent broadband connections far outweigh the impact of a slower connection.
9. Whilst the maximum available technology and speed capability *should* be rolled out UK-wide, particularly where access for the consumer is concerned, better product differentiation is needed for businesses on the ground. Anecdotally, businesses report a need for broadband speeds somewhere in-between the government's minimum coverage target of 2 megabits per second (mbps) and superfast target speeds of 24 mbps. The suggestion from the business community is not that government should lower target speeds – we should be aiming for world-beating digital infrastructure - but instead to work with industry to raise the bar of the minimum provision, and to push for product choice in the marketplace, by incentivising provision of tailored business products at affordable prices.
10. As the unprecedented uptick in mobile technology starts to fully take hold in the business community, there is a real need for focus on mobile and geographical coverage – particularly for employees on the

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<sup>2</sup> [http://issuu.com/the-cbi/docs/infrastructure\\_survey\\_2013](http://issuu.com/the-cbi/docs/infrastructure_survey_2013)

move. Indeed, such is the revolution of smartphone and tablet technology, an analysis of mobile and desktop internet traffic by Intelligent Positioning shows that mobile (tablet and smartphone) traffic increased from 22.8% to 37% in 2013. If this rate of shift from desktop traffic to mobile traffic continues, mobile and tablet will overtake desktop this year<sup>3</sup>.

11. Mobile technology applies to more than just businesspeople on trains and workers using car phones. It allows engineers visiting external sites such as utilities customers' homes and pylons in fields to carry tablets to download schematics and upload information to be picked up back at headquarters (**exhibit 2**). Not only this, but optimising a product or service for mobile consumption can grow a company's customer base, and drive innovation in delivery (**exhibit 3**).

#### **Exhibit 2. Northumbrian Water**

**About:** Northumbrian Water operate in North East England, providing water and sewerage services to 2.7 million people, and also in South East England, providing water services to 1.8 million people.

**Requirements:** i) To enable mobile fieldworkers to gain remote access to job details, schematics and associated information, 3G mobile connectivity essential. This enables NWL fieldworkers to operate in the most efficient manner, ultimately helping us to deliver value for money for our customers. ii) In order to ensure efficient operation of our water and sewerage network, and to maintain reliable services for our customers, NWL rely on several thousand remote monitoring (SCADA) devices. Many of these use legacy 2G services for either primary or secondary communication.

**Challenge:** i) Levels of coverage are limited in many areas, even on major roads or in semi-urban areas. A greater emphasis on geographic coverage, rather than population coverage would be of great benefit. ii) Replacement or upgrade of our remote monitoring equipment is complex and expensive - with changes requiring significant budget and business planning. Assurances relating to continuation of legacy services and/or backwards compatibility as 4G and 5G services become more mainstream are hence very important.

#### **Exhibit 3. Guardian Media Group**

**About:** Guardian Media Group is one of the UK's leading media organisations whose core business is Guardian News & Media, publisher of theguardian.com and the Guardian and Observer newspapers. They also manage investments with the purpose of providing financial support for the development of their journalism.

**Digital strategy:** Digital innovation and investment has been critical to Guardian Media Group's evolution from a UK-based national print newspaper to the third most-read newspaper website in the world, optimised and accessible from any device. Since the announcement of its digital-first strategy in 2011, consumption of content on mobile and tablet devices has been the driving force behind Guardian's growth, contributing 50.2% of the 102m unique browsers that visit theguardian.com

12. However, whilst there is an obvious need to get deployment of mobile networks right for businesses and consumers, this should not mean taking focus away from the importance of expanding physical broadband networks upon which mobile networks are reliant anyway. Extending the UK's fibre networks, ducts and poles will be crucial to the erection of mobile masts, and this in turn will be crucial to the experience of a seamless service for businesses. Patchy coverage, and having to swap constantly between fixed Wi-Fi signals and mobile data usage, or relying on dual-sim technology is clearly not ideal for users. Mobile operators have identified a real opportunity to plug connectivity gaps where fixed networks will not reach but, as discussed below, work needs to be done on gaining permissions for higher and better-located masts to extend signal reach.

**The role for government is not to predict the future, but to set out a long-term plan for a regulatory and policy environment that promotes private sector investment**

13. Progress by infrastructure providers and operators to date paints a promising picture of UK digital infrastructure; 83% of respondents to the CBI 2013 Infrastructure Survey reported that they have seen an improvement in the UK's digital networks in the past five years. Furthermore, around half of businesses operating in sectors particularly reliant on digital networks placed UK network infrastructure ahead of those of other countries. However, when compared internationally, businesses already feel that the UK's digital network needs to evolve and change to keep pace with technological developments like high speed broadband products and 4G mobile. For mobile operators and infrastructure providers

<sup>3</sup> <http://www.intelligentpositioning.com/blog/2014/01/mobile-and-tablet-traffic-set-to-overtake-desktop-by-mid-2014/>

though, the UK investment landscape has the private sector at the limit of what it is able to do to go further and faster to match technology and business requirements for connectivity.

14. The business environment in which internet & telecommunications providers are currently operating is fragmented and not conducive to the promotion of private sector investment. When considering this business environment, the government should not spend unnecessary time and resource prescribing for a pre-defined technological future as the consultation paper has tried to do. Instead, any strategy should operate on a set of basic principles, so that the marketplace is competitive. This will ultimately allow for innovation and growth within the telecommunications sector, as well as growth in the wider business community through more efficient automated services, greater profits from more effective online marketing practices and job creation.
15. There have been clear challenges and tensions in recent years that have caused uncertainty in the private sector regarding the capital investments that must be made to deliver world-beating digital networks over the long-term. Only by tackling the challenges that the telecommunications sector faces now, will industry be able to build on the work already being done as part of the government's existing initiatives such as the Rural Broadband Fund, Super Connected Cities Vouchers, and the Mobile Infrastructure Project.
16. Regulatory and policy challenges exist on both sides of the marketplace; i.e. a) in the provision of fixed broadband networks, and b) provision of mobile internet networks. Some of these challenges are unique to the respective markets, whilst others are shared on both sides of the landscape.

**a. Challenges in the fixed market**

Planning regulations and 'red tape' equate to as much as 85% of the total cost for network providers to build requisite infrastructure for service delivery. From costs associated with the digging up of trenches to the reluctance of local authorities to work effectively with the private sector, the broadband market is faced by challenges that could be avoided with moves made towards planning reform to more easily dig trenches of different sizes, and avoid expensive re-digs and appeals. The government should seek a holistic, cross-department approach that puts digital at the forefront of everybody's targets and priorities. From the Department for Transport on the relevant codes and permits regarding 'narrow' and 'micro trenching' techniques, to the local authorities involved, all departments and government stakeholders should be on side when it comes to getting fibre in the ground.

**b. Challenges in the mobile market**

Specific to mobile service delivery, are issues and costs related to the erection of masts, as well as spectrum policy.

- i) Similar to the challenges with digging trenches, mobile operators face obstacles in the planning system in both rural and urban areas when it comes to mast location, and the height of such masts. If mobile operators were able to build masts up to 35 metres higher they would be able to provide better coverage, more efficiently, as fewer masts would need to be built.
- ii) Where spectrum policy is concerned, mobile operators' ability to commit to invest in network expansion is negatively affected by the nature of costs and fees – specifically, proposed changes to the Annual License Fees by Ofcom. Recent proposals can mean operators being charged up to four times as much as they have been used to / have planned for on an annual basis. The only way to fund such as rise, is to limit the amount allocated for capital investment – this is damaging to the roll out of network infrastructure over the long-term. The government and Ofcom must work together to align strategy, making delivery of services an absolute priority and removing prohibitive initiatives and costs. Consideration should be given to expanding the remit of Ofcom to have a specific obligation to help promote growth through private sector investment and innovation in the market.

**c. Mutual challenges regarding landownership**

Relevant to both fixed and mobile delivery, are challenges with landownership rights and costs, and specifically the Electronic Communications Code. The UK is one of the most expensive

places in Europe to roll out mobile infrastructure, with annual site costs 50% higher than the EU average and three times higher than in Germany. Landowners are not regulated when it comes to the rents charged to dig or build for the purpose of digital connectivity and asking prices are often well beyond market rate. Furthermore, access to land for the purposes of maintenance can exceed 48 hours – this is an issue for customer service, as much as it is the operator's ability to function. Arguments are starting to be made in the business community about how we prioritise digital connectivity alongside other infrastructure and utilities; land rents associated with electricity provision are far lower, and there is increasing scope to suggest that the ever-growing importance of digital services as critical infrastructure warrants reform regarding costs.

**There is a positive role for government in the stimulation of uptake and demand for digital services, with a holistic strategy required for digital skills and delivery of public services**

17. Solving the issues in the business environment to ensure investment in our digital networks to boost UK-wide access is only part of the puzzle. Taking action to reform on the supply-side will make limited difference to the UK's growth prospects in the long-term if our world-beating networks are not utilised. Making the most of our infrastructure will allow UK business to keep pace with international rivals, and this will require a joint effort from government and industry to boost demand for superfast services, and technological business solutions.
18. Taking mobile as an example, a report by A.D. Little explores the relationship between 4G mobile coverage and uptake; comparing South Korea who were able to achieve 100% coverage within 14 months of roll-out, and an uptake rate of 17.9% with Germany who achieved 95% coverage within 16 months, with only 0.2% uptake<sup>4</sup>. Factors for this vary, but there is a strong case to be made around the focus on digital skills and provision of tablets in schools.
19. There is also a strong case for upskilling our workforce in the use of technology, as well as awareness of the products and services available to them, and the added value for their business. 92% of SMEs have access to appropriate networks according to the Federation of Small Business<sup>5</sup>, and indeed according to the CBI's 2013 Infrastructure Survey data, 71% of businesses overall feel well informed about the benefits of greater digital connectivity to their business. However, there is a disconnect between this awareness, and the feeling that a trick is being missed; 46% of businesses in our survey felt that they could be making better use of UK digital networks in practice. Despite the UK having the largest digital economy in the G20, with UK consumers spending more per annum online - £1,175 per head in 2013<sup>6</sup> – than other developed economies, only 14% of UK SMEs are *selling* online which is less than half that of Norway at 30%.
20. When it comes to consumer uptake of digital services, there is a clear link between digital skills and the debate around digital inclusion. 10 million UK adults have no online presence at all, and with public services increasingly like to move wholly online this is not only an issue reserved for operators and their marketing challenges. Initiatives such as GoON UK are a promising start demonstrating how industry can work with the third sector on digital skills, but this is not enough. Effective government profiling of the importance of being online, coupled with a strategy to educate our children and workers with the digital and IT skills that employers need, should be embedded at the heart of any long-term strategy on digital connectivity. This will unlock potential in our ecommerce customer base, as well as a workforce utilising technology to achieve business efficiency and growth.
21. A good example of demand-side strategy and funding is the Super Connected Cities Voucher Scheme. This scheme, offering financial support to boost SME uptake of upgraded internet access is a welcome move towards more demand stimulation led initiatives by the Government. In focussing on affordability in the first instance, this scheme has the potential to make a real difference for small businesses with tight budgetary constraints, as well as converting businesses to physically experience the difference that connectivity can make to their operations. In its infancy, the Voucher Scheme has clearly experienced issues with profile and marketing which government should seek to learn from with future similar schemes. The increased marketing activity by BDUK over the coming months is welcome, and will be important to monitor.

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<sup>4</sup> A.D.Little, *The Business Benefits of 4G LTE*, 2012

<sup>5</sup> <http://www.fsb.org.uk/policy/assets/publications/fsb-member-survey-2013-uk.pdf>

<sup>6</sup> <http://media.ofcom.org.uk/news/2013/uk-communications-deals-cheaper/>

22. However, in focussing on affordability the government must not forget to incorporate the needs of the UK's core tranche of growing medium sized businesses. Often affordability will remain an issue, but as businesses experience success and expand, they no longer qualify for schemes such as vouchers. New ways of stimulating demand in this part of the business community will be as important as provision of access, as well as testing possible initiatives to help with training in the work place.

**CBI, September 2014**