

Mr Mark Swarbrick
Department for Culture, Media and Sport
100 Parliament Street
London
SW1A 2BQ

31 March 2014

Dear Mark

Digital Communications Infrastructure Strategy

Following our phone call with your colleague Joanne, we committed to come back to you with a more detailed response to your Digital Communications Infrastructure Strategy Terms of Reference Document.

As you know, EE was the first telecommunications company to bring high-speed 4G to the UK. We have led the industry with double-speed 4G and enabled the fastest mobile internet speeds in the world in London. So far we have rolled out 4G to 187 towns and cities across the UK under the existing regulatory regime, and we are working towards offering LTE Advanced across Greater London by the end of this year.

With the UK having now achieved this and other major milestones, we agree that it is appropriate for DCMS to start looking towards the future, to ensure that the right incentives, tools and framework are in place to ensure that the UK's digital communications infrastructure and the digital communications services it supports continue to go from strength to strength over the next 10 to 15 years.

In this respect, we fully agree with the Terms of Reference that Government's objective should be to ensure that planning, investment and development are facilitated not hindered. We also firmly agree that achieving this objective will require Government to identify the policy and regulatory steps required, in partnership with industry and of course also relevant independent regulators such as Ofcom.

The six work strands set out in section 4 of the Terms of Reference seem to be broadly well designed to support this approach and outcome. In the remainder of this document we elaborate on the issues that we consider to be integral to any successful Government digital communications infrastructure strategy for 2015-2025/30, namely:



1 Trident Place
Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

t: +44 1707 315000

ee.co.uk

Registered in England and Wales
as Everything Everywhere Limited

Registered office:
Everything Everywhere Limited
Hatfield Business Park
Hatfield, Hertfordshire
AL10 9BW
Company number: 02382161

- Facilitating and encouraging private sector investment in digital communications infrastructure and services;
- Having a keen understanding of the digital communications services the infrastructure is likely to be required to support;
- Ensuring the right policy and regulatory framework is in place; and
- Ensuring the right policy and regulatory tools are in place.

1. Facilitating and encouraging private sector investment

As our network investment and roll out has highlighted, the development of the UK's digital infrastructure depends almost entirely on private investment. Hence it is crucial that there is a good incentive for investment in digital infrastructure in the UK. The mobile sector is not currently making an adequate return on capital employed, and we believe this is down to fierce competition and what we call 'death by a 1000 cuts', i.e. the lack of joined up thinking about how policy and regulation affect the sector overall.

As an example, the proposed dramatic increase in ALFs at a time when MNOs are investing heavily in rolling out 4G seems quite inconsistent with the policy goal to promote the availability of high speed mobile broadband. We believe that Ofcom and Government should be encouraged to think more holistically about the sector in their ongoing decisions to ensure the climate remains investment friendly.

The dominant policy of this government to significantly subsidise fixed communications (which is more expensive per person to rollout superfast Internet) and tax mobile communications (which is more cost effective to rollout superfast Internet per person) is outdated with 4G, and damagingly inhibits private sector investment in mobile, reduces economic growth and shows flagrant disregard for consumers' interests.

Building from its current position of European leadership across the majority of measures of digital adoption, usage and citizenship, the UK is uniquely positioned to shape the next phase of market and broader economic development. It should also be kept in mind that over the last 30 years the UK mobile communications market, and broadband services, have been built and rolled out as a result of large scale and long term private sector investment. Any government strategy should ensure that the UK remains an attractive market for private sector investment and innovation.



1 Trident Place
Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

t: +44 1707 315000

ee.co.uk

It is important to note that the right policy framework and tools as will be outlined later - both supporting rollout and letting competition drive consumer value - are critical to supporting private sector investment.

2. Understanding the future digital communications landscape

Looking ahead over the next decade EE firmly believes that the pace of change in digital communications will continue to accelerate, creating major new opportunities to enable transformational economic and societal change.

Despite structural change across many European markets, the UK remains the most competitive telecoms market in Europe with fixed and mobile pricing significantly below the majority of its peers. The availability of low cost, high speed connectivity pioneered by companies such as EE has driven service adoption and stimulated a new ecosystem of digital innovation that is cementing the UK's status as a global leader.

To consolidate this position, the UK will need to meet the emerging demand for ubiquitous, reliable connectivity that will enable the next generation of digital products and services. This shift to "mission-critical" connectivity will drive major productivity and social benefits and create major new opportunities for growth and efficiency in the UK and beyond.

Examples of how high speed, ubiquitous and reliable connectivity could transform user experiences and business models can be seen across a wide range of industry sectors:

- a. **Transport:** pervasive, low latency communications networks will optimise the efficiency of existing infrastructure, allowing more traffic to safely travel on the roads and railways. Enhanced communications infrastructure will also support the emergence of driverless vehicles, restricting the environmental impact of road transport, reducing road traffic accidents and providing additional years of mobility for the elderly and infirm.
- b. **Healthcare:** resilient and ubiquitous communications networks will support major efficiency gains in healthcare, with remote diagnostics and predictive analytics driving a major shift to telemedicine and telecare, significantly reducing the economic burden of an ageing population.



1 Trident Place
Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

t: +44 1707 315000

ee.co.uk

- c. **Smart Cities:** next generation communications services will be at the heart of initiatives to make UK cities smarter, helping to address the many challenges of urbanisation and improving citizens' quality of life, making public services more efficient, generating new sources of public sector funds and fuelling economic growth.
- d. **Internet of Things:** the transformative potential of billions of autonomous sensors, machines, gadgets and devices that are connected to a cloud-based infrastructure appears limitless. In his recent speech at CeBIT, the Prime Minister acknowledged the challenges and opportunities in the nascent IoT space and expressed his desire for the UK to become a leader in this field. Universal and secure connectivity is a key enabler for the IoT, securing major benefits for UK plc through linking up disparate parts of the ecosystem across different services and industry sectors.

EE believes that the revolutionary power of next generation, mission-critical communications can only be realised through a very different approach to network architecture:

- Every building to have access to an internet connection offering fibre-like speeds; and
- Every street / road will require fibre-like speeds and resilience, delivered through 4G and 5G wireless infrastructure.

This will be difficult to achieve within the current market structure, with new relationships and incentives required to move from FTTC roll out to nationwide FTTP coverage and support the roll-out of economically viable ubiquitous 4G and 5G mobile network coverage.

EE is currently working with a number of public and private sector research facilities to develop 5G, and it is clear that the concept of "always sufficient bit rate" will require close interworking with fibre infrastructure and access to multiple spectrum bands working in close harmony (licensed and unlicensed spectrum).

In addition to next generation connectivity, UK communications providers will also play a major role in enabling interoperability between services and securing customers' interactions across the rapidly evolving ecosystem. Privacy structures that support the sharing of insight / data across platforms will be key to the realisation of economic benefit, with communications providers well placed to securely manage permission and attributes across the web of customer and enterprise relationships.



1 Trident Place
Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

t: +44 1707 315000

ee.co.uk

mData is a new and growing field in which mobile operators are beginning to use aggregate and anonymised network usage information to provide market research and insights for the public and private sector. This is a fledgling market and with proper gov't support and a constructive policy environment has the opportunity to being significant benefit to the economy, society, businesses and consumers.

3. Ensuring the right policy and regulatory framework is in place

EE believes that there is a clear role for UK Government policy makers to create principle-based frameworks to support the roll-out of these new enablers of economic growth:

- a. National fibre roll-out incentivisation and policy support for increased competition in the mobile network backhaul segment
- b. Government support for international harmonisation of spectrum usage to drive economies of scale
- c. Urgent prioritisation of much needed legislative reforms to the current Electronic Communications Code
- d. Encouragement from Department of Communities and Local Government and Devolved Administrations to local councils to expedite roll-out of bandwidth where required (including assessment of long-term viability of current council concession approach)
- e. Ensure that Government driven initiatives in the area of privacy and data protection do not disadvantage UK enterprises when competing with global service providers (e.g. current asymmetry in midata)

EE also believes that government can play a major role in supporting new public sector initiatives that will encourage investment and innovation across the UK digital ecosystem.

The current government tender process for the Emergency Services Mobile Communications Programme provides a strong working model for how government can work with the private sector to deliver cutting-edge public sector solutions in a collaborative manner.

Other examples could include:

- a. Transport policy: government should ensure that the latest views of service and capability evolution are embedded within proposed transport solutions (e.g. road monitoring / IoT)



1 Trident Place
Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

t: +44 1707 315000

ee.co.uk

- b. Creation of innovation sand boxes to allow 3rd parties to address public sector issues in a safe environment

4. Ensuring the right policy and regulatory tools are in place

As noted above, when it comes to infrastructure support for evolving mobile technologies such as 5G, the concept of “always sufficient bit rate” will require close interworking with fibre infrastructure. This in turn will require:

- a. Government policies designed to support and stimulate market driven provision of the required infrastructure (be that in the form of new infrastructure or upgrades and enhancements to existing infrastructure); and
- b. Appropriate regulatory tools being available to and used by relevant independent regulatory bodies such as Ofcom to address any relevant market failures that may hinder this.

Looking at the current regulatory environment, EE does not believe that the regulatory remedies imposed by Ofcom in the context of its Business Connectivity Market Review Process are adequate to support the connectivity needs of future mobile services. In this context, we believe it will be important for the Government discussions with Ofcom on the digital communications infrastructure strategy to cover:

- (i) the scope for current remedies to be expanded to encompass access to passive infrastructure (such as ducts and dark fibre) of operators found to have significant market power for these purposes; and
- (ii) the scope for access remedies under section 73 of the Communications Act which are not limited to situations where an operator has significant market power – to cover, for example the managed backhaul services of BT Wholesale on which all four mobile network operators are currently reliant, but which are not currently designated as significant market power services.

As also noted above, future digital communications services are also likely to require privacy structures that support the sharing of insight / data across platforms. EE expects this to be another key area where appropriate supporting government policies and regulatory tools will need to be in place.



1 Trident Place
Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

t: +44 1707 315000

ee.co.uk

EE would welcome the opportunity to discuss our response in more detail, and look forward to bringing some of the ideas to life at the Scenario Planning workshop on the 25th April.

Yours sincerely,



Richard Reeves
Director of Corporate Strategy
EE Ltd.



1 Trident Place
Hatfield Business Park
Hatfield
Hertfordshire
AL10 9BW

t: +44 1707 315000

ee.co.uk
