
Step 7: Speed Up Broadband

1. What we want to achieve

Open, ultrafast¹ broadband will be as important to future commerce as shipping and rail have been in the past. Broadband helps reduce carbon and is the life-blood of future business growth, particularly in knowledge-intensive industries like media and biotechnology, which account for 33% of the national economy and 25% of employment. Broadband is also in a sense the ‘fourth utility’, increasingly important to people’s daily lives. We are not investing enough overall in this critical future infrastructure.

All the Core Cities should rank amongst the world’s top digital cities. Their aim is to create a more competitive business environment in cities which can grow and retain companies who will otherwise move overseas where this investment has already been made. We want Government to work with us and the European Union to overcome barriers that prevent or slowdown investment in broadband, to find ways of accelerating delivery of ultrafast broadband to create more competitive, wider and faster channels. Without this we risk undermining the longer-term competitiveness of the nation and its business base. We need to achieve three things.

1. Broadband in Core City urban areas to rival the best in the world.
2. Increased take-up of broadband services both for businesses and citizens so we all benefit.
3. Infrastructure capable of exploiting new technologies such as cloud computing that enable greater collaboration and help transform the way services can be delivered.

2. Why change is needed

UK speeds are slower than many ‘knowledge economies’, and 500 times slower than those planned for the high-tech economy of South Korea. We are getting left behind.

There have been challenges to public investment in ultrafast broadband from the private sector, under European ‘State aid’ law. If it remains unaddressed, this could result in a lack of investment into broadband where it is needed most: big cities.

‘State aid’ laws govern how Governments across Europe invest in projects with commercial potential. Because retro-fitting broadband into cities can be complex – digging up roads and re-routing networks – it can cost more to put in than rural broadband despite smaller distances and higher densities. At the moment, the European Union and UK Government’s position is that the levels of investment needed to put rural broadband into the UK do not create a State aid problem, but now seem unable to make the same judgement for urban areas.

¹ + 100 megabits per second

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This has led to an ‘urban–rural’ divide in Government broadband funding, which results in the perverse situation that rural areas on the edge of cities can get investment to improve speeds and infrastructure, whilst those classified as ‘urban’ with huge concentrations of business are unable to invest in infrastructure programmes in the same way. A voucher scheme is being piloted for SMEs in cities, but this only covers installation costs and therefore does not bring down operating costs for businesses and requires significant demand stimulation effort to be successful, which is not currently covered by the Government’s funding programme. The Core Cities therefore do not think this will generate the right level of investment and will only improve infrastructure in a highly piecemeal way. The voucher scheme is demand led, when what cities need is a step-change in supply.

Cities drive the economy, and we should not reduce broadband investment into these critical economic hubs.

Rural areas can suffer from a general lack of connectivity and Core Cities acknowledge that broadband investment is important in these places, but without thriving cities, the whole economy will suffer.

The current voucher scheme for investment in broadband is not the right long-term solution. As an example, there are numerous areas across Core Cities where private suppliers have completed their upgrade programme, but businesses and households cannot receive superfast broadband as their local connections to that system were viewed uneconomic to upgrade. This leaves cities with a patchwork of areas without ultrafast connectivity – known as ‘white areas’ – which require investment in infrastructure and are unlikely to be addressed by the voucher scheme.

Telecommunications infrastructure is a critical economic enabler.

The European Cities Monitor report cites telecommunications infrastructure as the 3rd ranking priority when businesses considers relocating. In a global market, it is essential we complete with the best in class.

Economic studies of the impact of broadband on national economies show that it is a foundation for economic growth, job creation, global competitiveness and a better way of life. A World Economic Forum study demonstrated a strong correlation between network readiness and global competitiveness. Recent research by Arthur D. Little in cooperation with Chalmers University of Technology and Ericsson, found that doubling broadband speeds permanently can add 0.3% to GDP and for every 1,000 additional broadband users, 80 new jobs are created.

The Core Cities have seen a shift towards becoming a more service-based and knowledge-intensive economies. Employment growth has been seen in industries such as financial and professional services, telecommunications, and education. In the UK, 35% of GVA and 27% of employment was accounted for by knowledge-intensive industries in 2011 (BIS analysis of ONS data in BIS Economic Paper No. 18, Sept, 2012) and this proportion is expected to grow.

Cities are becoming more and more attractive business locations for knowledge businesses with their ready access to consumers, skills and infrastructure. It is thought that 89% of

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private sector knowledge-intensive jobs are in urban areas in England and Wales, and growth in knowledge-intensive industries have made a significant contribution to increases in productivity in the Core City Regions over the last decade.

In the recession, it is knowledge-intensive industries which have been affected least, with job losses primarily concentrated in places with high levels of employment in non-knowledge industries and amongst less skilled workers.

Forecasts suggest that, just as after the 1980s and 1990s recessions, economic recovery will be driven by knowledge-intensive businesses. Core City Regions – home to half of England's leading universities, nearly three out of every 10 skilled workers and offering attractive locations for knowledge-intensive businesses – need to ensure that they are able to cater for this investment, growth and innovation.

Investing in broadband is investing in our economic future; for every £1 spent on broadband £14 can be generated for the local economy.

Research by PwC found that the total potential economic benefit from getting everyone in the UK online is more than £22 billion, far in excess of the benefits from universal telephony. Amongst the benefits are:

- Better access to education, which could boost lifetime earnings across the UK by £10 billion
- A £500m economic benefit from shortening periods of worklessness between employment
- Government transaction costs reduced by £1 billion per annum
- More efficiency: 3.6m households no longer missing out on £1 billion a year of online discounts

A study by Regeneris Consulting on behalf of BT found that supplying commercial premises with superfast broadband will help businesses grow and benefit the local economy and bring the following benefits:

- ***New Business:*** Superfast broadband can help develop and create new businesses by reducing barriers to entry to certain sectors. Innovation such as cloud computing can be a key driver in attracting new business start-ups as there is low upfront capital and allows steady flexible growth.
- ***Flexible Working:*** Widespread availability of superfast broadband will open up more employment opportunities and enhance the productivity of existing staff by allowing more flexible working patterns.
- ***Improved Performance of Existing Business:*** Superfast broadband will allow businesses to operate more efficiently and to develop new products and services. Knowledge-based industries and the places where they are most concentrated, such as the Core Cities, are expected to exploit broadband most effectively and generate the greatest impacts.

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The same study also estimated 140 start-ups could occur in a typical UK city as a result of cloud computing and support 1,580 home workers.

Investing in broadband means investing in communities as well

Social housing tenants and others in receipt of housing-related benefits are amongst the biggest consumers of public services. Increasingly these services, and welfare reforms like Universal Credit, rely on a digital connection. In many cases, however the broadband providers will only provide services to those with a good credit history and bank accounts. Without digital access, plans for reform of welfare and of the public sector in general will be much more difficult to implement. Direct fixed-line links into social housing will help, but mobile phones could also play a key role, if linked to high capacity infrastructure nearby social housing which provides access to wifi. Digital literacy also helps to build essential skills within local labour markets.

3. Core Cities offer and proposals

Core Cities and Government should work together with the European Commission to overcome the State aid barriers that prevent or slowdown investment in broadband in urban areas, and to find ways of accelerating delivery of ultrafast broadband. In particular, we strongly support the block exemption for broadband investment proposed by the Commission to remove the current blocks within State aid law. But UK Government also needs to strongly support the principle of broadband investment in cities, and work closely with the Core Cities to deliver the State aid approvals and investment required. We also think that investment decisions should be based more closely on the overall economic impact and benefits that this will bring rather than the narrow commercial investment case. Without this we risk undermining the longer-term competitiveness of the nation and its business base.

1. **Designated Enterprise Zones should have access to ultrafast broadband connectivity**, including tax incentives to ensure this happens.
2. **Government, cities and suppliers must find ways of increasing access to broadband** and better wifi access for social housing tenants and others who may not have the credit history required by major suppliers. This important to create digital inclusion and deliver public sector reform, including the new Universal Credit, but is also restricted by State aid rules.
3. **Core Cities want to create Research and Development test-beds** for ultrafast open broadband in each of their cities, working with Universities and other city partners. This could be supported by:
 - The alignment of TSB and Research Council spend to maximise the value from such networks;
 - A form of extended 'cloud voucher' scheme for SMEs to help them gain access to this test environment;
 - A commitment to help scale up this type of city test infrastructure to city-regional level
 - Commissioned work to understand the economic benefits of the wider 'smart-city' agenda, which links broadband to other infrastructure and services within a city.

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4. **Core Cities will work with their LEPs, local business leaders and other partners** to increase the potential investment pot for ultrafast broadband and align this to other local investment plans in their areas, for example for European Funds, housing, transport, infrastructure and economic growth. They will also work with partners to stimulate demand for and use of broadband, making local businesses more productive. Core Cities will explore ways in which they can work together to deliver better value on broadband investment, and better returns.
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