The uptake of broadband within Scotland appears to be stagnating. Between Q1 2010 and Q1 2011, there was no increase in the uptake of broadband in Scotland. Broadband uptake was static at 61%, a level significantly lower than the UK wide figure of 74%. Not only was the UK wide figure an increase on the previous year, but increases also occurred in England (to 76%), Northern Ireland (75%) and Wales (71%) as well. The only other part of the UK to see stagnating levels of Internet adoption is the East of England. It is also worth noting that the proportion of Scots who have never used the Internet is, according to data from the Office of National Statistics, more than 20%.

If Scotland is to enjoy the undoubted benefits associated with broadband, then uptake needs to increase. But so does the availability of broadband infrastructure. Data published by Ofcom draws attention to the variability that exists across Scotland in terms of the quality of the underlying infrastructure. With this in mind, this document highlights areas that we believe should be fully considered before action is undertaken to encourage broadband availability and adoption.

The scale and scope of a national broadband plan

Many countries have adopted national broadband plans. As shown in a recent publication from the OECD by Ewan Sutherland, national broadband plans vary in the size, scope and ambition. Setting aside the specific details of these plans, it is possible to identify a series of issues that need to be considered when developing a national broadband plan within Scotland. These are:

- The need to create an appropriate regulatory environment that encourages private sector investment.
- Setting targets (average speeds, geographic coverage) that are both ambitious and achievable.
- Co-ordinating actors. Co-ordination needs to occur between government departments to ensure that policies and initiatives are aligned, as well as between the central and local government. Collaboration could also occur between different local government actors, not least in the provision of infrastructure and services.
- Access to content. One aspect of this is ensuring that households and businesses are sufficiently e-literate that they are able to access online content, while another is ensuring that sufficiently attractive content is available to encourage broadband adoption. Governments through a range of programmes – e-government, e-education etc. – can play a role here.
- Technological choices. Broadband access can be provided through a range of technologies, which differ in terms of their investment and operational characteristics. Technological choices made today may be insufficient to meet future demands, or could result in substantial differences emerging in terms of network quality that prove subsequently costly to address.
- Developing and then implementing a national broadband plan is not straightforward. The plans are complex, combining technological choices with regulatory and socio-economic considerations. It is also inappropriate to separate the availability of broadband infrastructure from its use. The availability of infrastructure enables households and businesses to access a range of services, while new and innovative services can also encourage households and businesses access the Internet. Mapping out the complex set of relationships that exist between the availability and adoption of broadband can help identify where policy initiatives could be undertaken, and thus enable efforts to be focused for maximum effect. When such an approach has been conducted in rural and remote Scotland, a series of policy levers have been identified that would facilitate increased adoption of broadband.

3 ibid
4 For further details see http://maps.ofcom.org.uk/broadband/index.html
The role of government

A recent report by the Economist Intelligence Unit highlights the wide disparity of government involvement in the provision of broadband\(^7\). The report suggests four different types of government role, namely: control, stimulus, partnership and facilitation. The first of these is exemplified by Australia, where the government has taken control of the incumbent operator’s existing fixed infrastructure and plans to invest A$27 billion to develop a national fibre-to-the-home network. As this network will provide wholesale services, competition will occur at the retail level. While there is also a significant financial element to ‘stimulus’, the government also seeks to encourage various administrative levels to attract private sector broadband investment. Tax incentives are also made available.

In the ‘partnership’ role, the government aims to provide a suitable environment to encourage the private sector provision of broadband to those areas where it is commercially attractive to do so. However, in those areas where it is not commercially viable to provide broadband the government intervenes to provide the necessary infrastructure. In the ‘facilitation’ role, the government does not provide infrastructure itself but instead endeavours to create the appropriate regulatory and economic environment to ensure that the private sector makes the necessary investment. The example country provided by the Economist Intelligence Unit for a government playing a ‘partnership’ role is that of France, and Switzerland for ‘facilitation’.

This is not to suggest that the Scottish Government should follow the lead of any specific country, but rather to highlight the different models that have been deployed to date. While governments acknowledge the important socio-economic role of broadband, they have sought to encourage its availability and adoption through often quite different approaches. These different approaches reflect the availability of financial resources, the existing infrastructure, population densities, the economic composition of the country and welfare considerations. If successful initiatives and policies are to be adopted by the Scottish Government, the context within which they originate needs to be fully understood.

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