

**Government Response to *The Next Phase of Broadband UK: Action Now for Long-Term Competitiveness. A Review of Barriers to Investment in Next Generation Access*, by Francesco Caio (2008)**

**Introduction**

In February 2008 the Government commissioned Francesco Caio to undertake an independent review of the barriers to investment in next generation access, in order to establish a sound evidence base with which to inform policy making in this area.

The Caio report was published on 12 September 2008, and made a number of important recommendations to both Government and the Communications Regulator (Ofcom). The recommendations are sound, realistic and achievable and on behalf of Government, we are delighted to accept them all.

The Review recommended that Government provide further clarity through setting a strategic objective for broadband/NGA in the UK. Consequently on 17 October the Government launched The Digital Britain Report. Using the Caio Review as a catalyst, this Ministerial Report will present a plan to secure the UK's place at the forefront of innovation, investment and quality in the digital and communications industries. The interim Digital Britain Report is published today

The Digital Britain Report creates a unified framework to help maximise the UK's competitive advantage and the benefits to society that the digital age brings. We will build on wide-ranging work from government, industry and regulators, and bring together extensive expert analysis to

develop a strategy for a fully digital Britain. Broadband, and Next Generation Access, will play a key part in this process, in terms of both exploring options for maximising broadband participation, and the level of service expected, as well as looking to the future, ensuring the UK has a communications infrastructure to remain at the forefront of innovation and competitiveness.



Stephen A. Carter

Minister for Communications,  
Technology and Broadcasting



Angela Eagle

Exchequer Secretary to the  
Treasury

## Summary

1. In February 2008, Baroness Shriti Vadera asked Francesco Caio, former CEO of Cable and Wireless, to undertake an independent review into the barriers to investment in next generation access to broadband. His report, "The Next Phase of Broadband UK: Action Now for Long Term Competitiveness" was published on 12 September 2008.
2. The Government welcomes Francesco Caio's report. It accepts his analysis of the broadband market and the high costs of that act as a barrier to deployment of next generation access and that Government should act to minimise these costs. The Government also accepts that the market should continue to lead on NGA deployment and commits to monitoring market and international developments, and act to remedy genuine failures in order to protect the UK current good competitive position in broadband.
3. The Government is pleased to accept the recommendations of the report and is acting to implement all these at the earliest opportunity.
4. Even over the period since the Caio Report was commissioned, it has become ever more evident how important the issues are. The French government has published Plan Numerique 2012 setting out their ambitions for a digital economy, and President-elect Obama has announced plans to appoint a Chief Technology Officer. Alongside this Commissioner Reding has restated her commitment to the 'knowledge economy' proposals that were originally part of the Treaty of Lisbon. These developments perhaps give the Caio Report's injunction to government to provide greater clarity more urgency. In the 2008 Pre-Budget Report the Government published, "The UK economy: addressing the long term strategic challenges", which highlights the importance of both the communications infrastructure and digital technologies to the economy.
5. The Government's view is that NGA offers the opportunity to revolutionise the ICT infrastructure available to consumers and firms in the UK, providing a step change in the way we interact, consume and enjoy the opportunities of a globalised economy. The Government envisages that investment in NGA infrastructure will be led by the market in a way that ensures competition and innovation for end-users whilst also providing appropriate returns for network providers. The Government also envisages that a variety of technologies will be required to deliver NGA as widely as possible.
6. The Government will continue to support this through a number of measures. It will build on the work already done to lower the cost of build out, such as improved coordination of street works, where it is

important to promote a better understanding and proactive industry coordination. The Government will add to this by running a consultation exercise examining the possibilities of relaxing the constraints in the Electronic Communication Code on deployment of new telecommunications lines overhead.

7. The Government will also continue to work with Ofcom to remove the barriers to early spectrum release. In addition, the Government has recently announced that it will work with Ofcom and key stakeholders in order to maximise the benefits of spectrum released by Digital Switchover, in light of recent announcements by other EU nations.
8. The Government and Ofcom have agreed to work together on delivering an effective framework for efficient regulation of next generation broadband, and this work has already begun with Ofcom's second consultation on the regulatory environment of NGA. Ofcom have also agreed to work with Internet Service Providers to provide greater transparency for consumers, by building on their voluntary code of conduct published in June 2008.
9. Ofcom has begun exploring the possibility of sharing existing ducts and those of alternative infrastructure owners as way of minimising the barriers to deployment of NGA and will continue to do so.
10. In line with its vision for NGA, the Government accepts that the progress toward NGA will happen over a period of years and involve a range of predominately private sector and some public sector organisations, and that all investments would benefit from operating to common a code of practice. The Government has therefore initiated projects in the following areas to aid the development of a national network where all entrants have the best opportunity to operate and succeed in meeting consumer needs:
  - The development of a Publicly Available Specification for NGA connectivity in new builds
  - The publication of a guide to open access networks and,
  - The establishment of a network of local and community NGA projects.
11. The Government recognises the need for clarity around deployment of new networks and welcomes the Caio report's contribution in highlighting that it is the market, and not government, that should lead on investment. Ofcom, through its consultation process, is doing all it can to provide the necessary regulatory certainty. The Valuation Office Agency has already published guidance on the current application of business rates to new networks, which indicates that the use of pioneering allowances are appropriate in the case of investment in NGA, and are expected to remain so for the period of

the next valuation list (ie until 2015). This means that rateable values in this business area will take account of the speculative and innovative nature of the business..

12. The Government agrees with the recommendation that it should undertake a benchmarking exercise to monitor progress with NGA rollout. This process will inform future policy, including the appropriate remedies in the event of failure of the market. This exercise will look to measure: the pace of roll-out and announced investments; the take-up of NGA and the development of content and services that are likely to benefit from NGA; regulatory developments and pricing of available NGA services; and, where possible, international comparisons. Ofcom have agreed to help Government develop the appropriate metrics to implement this benchmarking process.
13. The Caio Review focused on issues specific to the roll-out of NGA in the UK. There are, however, a number of wider broadband policy questions, specifically relating to optimising take-up and coverage that also require Government's focus. This is why on 17 October, Government launched the Digital Britain Report. Using the Caio Review as a catalyst, it presents an action plan to secure the UK's place at the forefront of innovation, investment and quality in the digital and communications industries, and has been developed by Stephen Carter, the first Minister for Communications, Technology and Broadcasting. This appointment also directly addresses the Caio recommendation to signal leadership in Government for broadband.
14. In Digital Britain, the Government is bringing forward a unified framework to help maximise the UK's competitive advantage and the benefits to society. The Digital Britain Interim Report, published today, takes forward and builds on wide-ranging work from government, industry and regulators, and bring together extensive expert analysis to develop a strategy for a fully digital Britain.
15. Broadband plays a key part in this process. The Interim Report explores the options for maximising the levels of broadband participation, and the level of service that consumers receive – or should expect to receive in the UK. We are delighted that Francesco Caio has continued his good work as part of the Digital Britain Steering Board to help us drive this forward.

## Response to Caio Review – By Recommendation

### 4.1 Defining a Framework for fast broadband in the UK

Government has a proven track record in driving forward roll out, take up and competition in first generation broadband. In 2004, only 15% of homes in the UK subscribed to broadband, with the majority still using dial-up internet. In 2008, 58% of households, and 80% of those with PCs, subscribe to broadband. Through effective regulation, we now have one of the most competitive broadband markets in the world, with the majority of households having the choice of service provider, enabling them to choose a provider based on price, level of service and content, among others.

The Caio Review presents an opportunity to build on this success, and map out where the Government can play a further role in the development of high speed internet services across the UK. Digital communications are vital to business success and competitiveness, and enrich the social, cultural and educational landscape. Our ambition is to see the UK as the leading major economy for innovation, investment and quality in the digital and communications industries.

NGA technologies provide the opportunity to revolutionise the ICT infrastructure available to consumers and firms in the UK, providing a step change in the way we interact, consume and enjoy the opportunities of a globalised economy. The Government envisages that investment in NGA infrastructure will be led by the market in a way that ensures competition and innovation for end-users whilst also providing appropriate returns for network providers. The Government also envisages that a variety of technologies will be required to deliver NGA as widely as possible.

The government agrees with the conclusion of the Caio review that there is currently no evidence to support the need for major public intervention in this market. Given the uncertainties around both the way that demand will develop and the scale of the roll-out challenge, it is important that Government does not seek to mandate to industry how and when roll-out should take place. If, over time, the Government sees in certain areas that market-led investment is not forthcoming there may also be a role for more direct forms of public support.

Digital Britain, launched on 17 October by Stephen Carter, with the Interim Report published today, will provide the focus for wider broadband policy issues, and will consider four key areas:

- Ensuring that everyone has access to broadband,

- Considering what part local initiatives, have to play, both in respect of filling in existing gaps and encouraging NGA development
- Implementation of the recommendations from the Caio Review
- Identifying inhibitors and maximising uptake of broadband.

We are delighted that Francesco Caio agreed to continue his work from the Review and has been a key contributor to the Digital Britain Steering Board. Francesco will continue to take responsibility for driving forward work in the broadband area, along with Peter Black, as we move from the Interim Report to the Full Digital Britain Report, to be published in late Spring/early Summer.

#### **4.2.1 a) Work with Ofcom to accelerate the release of radio spectrum for mobile broadband**

The Government's view for NGA is that roll-out will only be optimised if a variety of technologies, both fixed and mobile, are adopted. The Government therefore agrees that the release of spectrum suitable for wireless broadband technologies is key to maximising NGA roll-out and the developing communications market in the UK and across Europe. Over the next few years the release of valuable spectrum can transform the digital landscape. The Government welcomes the recommendation to accelerate the release of spectrum and it will be working closely with Ofcom to promulgate the liberalisation of the market in the UK, moving away from the old command & control model by acting now to remove barriers to spectrum release. It will provide a lead in Europe to repeal and or amend any relevant directives and agreements and to speed up spectrum auction process.

In this vein, the Government has also recently announced that it will work with Ofcom and key stakeholders in order to maximise the benefits of spectrum released by Digital Switchover, in light of recent announcements by other EU nations.

#### **4.2.1 b) Mandate transparency on network capacity management policies**

The Government strongly concurs with Caio that it is important for consumers to be armed with the fullest possible information when making their choice of broadband supplier. We believe that this will help them to differentiate between service providers and make informed choices. We also feel that this consumer education may, in time, lead to service providers being able to provide more variety and pricing in product placements.

Internet Service Providers, due to the need to manage competing priorities in network traffic, find it necessary to place controls on the flow

of internet traffic at peak times. The Government is committed to making sure consumers are aware of this at the point of sale, so that the customer is fully aware of what they get for the price they pay. We are pleased that this has been highlighted in the Caio Review.

The Government fully accepts the recommendation and will work with Ofcom and the industry to assess the progress of the Ofcom voluntary code of practice for ISPs in increasing consumer awareness of restrictions and making available the best information to consumers at the point of sale.

#### **4.2.1 c) Support an agreed minimum specification for new build NGA**

In order to facilitate the roll out of Next Generation Access, Francesco Caio recommended that housebuilders are given guidance on NGA connectivity for new build homes. There is evidence that developers are demanding such guidance in order ensure that their homes are future proofed, and like gas, water and electricity, recognise that connectivity is fast becoming an essential utility.

We welcome this recommendation, and are pleased to announce that Government will be supporting this proposal, along with both the construction and communications sectors. We will work to develop a publicly available specification that will inform developers, and allow them to make reasoned choices in order to make their homes more desirable, and facilitate the roll out of NGA.

#### **4.2.2 a) Identify a specific implementation path**

Caio flagged a range of issues related to the regulatory framework applicable to broadband supply, all of which were carefully considered and of which both Government and Ofcom are fully conversant. The Government agrees that introducing greater clarity to the regulation of broadband markets would be beneficial, but also recognises the inherent difficulties in doing so and notes that Caio's determination that Government should not at this time intervene helps to provide some of that necessary clarity.

Ofcom's recent NGA consultation also helps to identify the pathway to successful transition of the telecoms market from one of exclusively fixed copper world to a new high speed data rich, fixed and mobile one. There are many issues still to work through for Ofcom and industry and the Government is committed to driving forward competition in converged services that will benefit consumers and business alike.

The Digital Britain Report will outline approaches and bring clarity to business and the regulatory environment necessary for successful exploitation of a converged digital world. The Government is further

committed to implementing policy initiatives that emerge from the Digital Britain report.

#### **4.2.2 b) Lower cost of civil works through a better coordination of streetworks**

The Government accepts that greater co-ordination of civil works is beneficial to identify opportunities for utility companies, including the telecommunications sector, to share works. As well as reducing the impact of congestion, this will help reduce the cost of the civil element (ie the excavation and reinstatement) and the Caio Review made the recommendation on this basis.

The Government welcomes this recommendation, and to support this principle, has already sought to address this issue by implementing a number of regulatory reforms in spring 2008 to encourage greater efficiency and co-ordination by all.

The Government is committed to ensuring the cost of NGA roll out are reduced as much as possible and will continue to work with the industry and local authorities to promote greater co-ordination and to build their capacity to do so. We will identify good practice and promote its adoption, as well as encouraging industry representatives to share case studies with their benefits not just in directly reducing the costs for industry, but also reduce the overall duration of works and their indirect costs, in terms of the impact of congestion, for businesses and individuals.

The Government will also engage industry through an informal consultation process to continue to identify innovative techniques or methodology that will minimise the costs of installing new or upgraded apparatus.

#### **4.2.2 c) Relax constraints on overhead deployment of telecoms lines**

As with the call for better coordination of streetworks, the recommendation to remove the current constraint on the deployment of overhead telecommunications lines, as set out in the Electronics Communications Code, is aimed at reducing the cost of a widespread deployment of NGA, and in particular Fibre to the Home (FTTH) or Fibre to the Cabinet (FTTC). In areas where long line lengths are likely, such as rural or even suburban areas, the cost of the civil works will form a large cost of any deployment, possibly to the point whereby telecommunications companies would not make the investment in the infrastructure, as a return would be uncertain. Allowing for deployment of lines overhead has the possibility of reducing this cost, with estimates of a reduction of up to 40% given as evidence for the Caio Review.

The Government recognises that this is a sensitive area, particularly given the desire to maintain the visual amenity of many parts of the countryside. However, the government also recognises that, rural areas increasingly rely on quality communications infrastructures to do business and go about their daily lives, and these areas are vital to the future competitiveness of the UK.

In order to identify the appropriate balance between the differing viewpoints, the Government will undertake an open consultation looking at whether amending the Electronic Communications Code in order to give local communities the choice of allowing this type of deployment is feasible, or indeed desirable.

#### **4.2.2 d) Address barriers to alternative ducting methods**

The Government welcomes the suggestion from Caio that it may be possible to reduce cost of NGA through using alternative ducting, such as sewers and also welcomes Ofcom's recent NGA consultation, in which they state that they had held discussions and reached agreement with Ofwat and Water UK that there was no reason in principle why the sewer network could not be used for deployment of fibre networks.

The government will, with Ofcom, continue to explore further with other relevant regulators where opportunities may exist for use of alternative ducting and where appropriate hold informal consultations with industry groups. The results of Ofcom's current survey of the BT duct network may also have an important role to play, and Government is looking forward to the outcomes of this.

#### **4.2.2 e) Provide clarity over the application of business rates to fibre optic lines**

The Government accepts that business rates as applied to fibre networks has been contentious and in some instances litigious issue, and that improving clarity around the application of rates to new networks would be beneficial for industry in assessing the business case for deployments.

We are pleased therefore to announce that the Valuation Office Agency, which has responsibility for setting the rates for telecommunication networks, has provided new clear guidance on the application of rates. The VOA will ensure that it responds to any queries from existing and new investors. For its part, the Government will ensure that the guidance is widely understood by potential investors.

**4.2.3 a) & b) Establish a network of support for local NGA deployments & Focus resources on open-access networks**

The Government agrees that it is in the interest of the national broadband infrastructure to bring some degree of coordination to local and community projects. There is benefit in the sharing of best practice and provision of guidance on common practices to maximise the opportunities for competition, for both consumer benefit and for the avoidance of investment in legacy technology in sub-optimal markets.

To improve the chances of projects attracting a wide range of suppliers of broadband services, it would be appropriate for them to use an open access approach, where the issues of interoperability, wholesale products and administrative functions are all based on common industry standards. This would minimise the costs of service provision and maximise the attractiveness of supplying services.

Where projects involve public bodies or the use of public funding, the Government will mandate that public investment in projects is conditional on the basis of these networks being based on the open access model.

In addition, to help the understanding of open access, the Government is working on the publication of guidance with local and community groups to help deliver efficient investment that will benefit consumers and suppliers.

**4.3 Benchmarking progress towards NGA, and consider actions for contingency planning**

The Government accepts Caio's contention that better metrics by which to assess not only the spread of next generation broadband, but also the impact it has on the economic output of companies and individuals, would be valuable. It will aid policy makers in determining when and how Government might be required to intervene to stimulate the deployment of next generation broadband. Government also recognises that assessment of the macro economic value of high speed broadband is difficult, not least at this relatively early stage of network deployments. Nevertheless Government is committed to carry out benchmarking of NGA and its economic impact and agrees that this should be linked to scenario and remedial actions, should they be required to progress the rate of next generation broadband deployments.

The Government has already taken steps to show leadership in this area by appointing Stephen Carter as Minister for Broadcasting, Communications and Technology. This directly addresses the recommendation from Caio that a senior figure for broadband be appointed.

The Government will therefore set out, in consultation with Ofcom and industry experts, a range of metrics to measure the progress and value of next generation broadband, in particular: the pace of roll-out and announced investments; the take-up of NGA and the development of content and services that are likely to benefit from NGA; regulatory developments and pricing of available NGA services; and, where possible, international comparisons. The Government will also engage in contingency planning to identify appropriate mechanisms and remedies in the event they should be required.