Public interest in a broadband world

Thank you Robin and good afternoon. The first thing I want to say is that I speak to you today as neither economist, regulator nor politician. I say this because my subject matter will cause me to stray into the territory of all three. So a plea to the many economists in the room – treat any solecisms with charity; to the regulators, indulge my new lack of responsibility in the knowledge that I really do know it's not easy. And the politicians, well, I don't need to worry about them. A punter can have an opinion on everything they have an opinion on. That's democracy.

But, of course, I am not exactly a punter in this context – my locus is that I am chair of the Broadband Stakeholder Group, the BSG. The BSG was set up to advise the government on broadband issues. No surprise then that we have an agenda – which, in this case, is to promote investment in next generation access – faster broadband – in a way and at a time that is beneficial to the UK and to British consumers. Our agenda is not to proselytise the merits of such investment, independent of the economics, nor is it to promote commercial interests. What we want to do is to work to

ensure that the complexities of next generation access – complexities arising from history, technology change, old rivalries, complex legacy regulation, uncertainty – to ensure that these complexities do not, through absence of thought and creativity, inhibit investment, even after the fundamental economics of investment have come right.

I'd like to raise three questions today; and, even if I don't answer them, make some progress and give the panel something to chew over. The first is the whole issue of how to quantify, to scale the public interest in broadband; and, well before that, how to articulate it in a way that stands up to scrutiny. To be a bit more precise – what is the economic and social value of specifically next generation access?

The second issue I want to address is this. It's hypothetical. What if we get a clear answer to the first question and it is that there is substantial value associated with next generation access – but that some or most of this value falls outside the value chain of the commercial players, such that the commercial players were not incentivised to invest. Externalities with economic value. And perhaps social value, difficult to attach a number to, but providing

society with new cohesion. In these circumstances, the argument for public intervention, assuming it captured the externalities or the social value, would be made. But the issue would remain – is it possible to conceive of a form of intervention that really did capture this public value? Can we speculate about the appropriate forms of public intervention? This is my second question.

The third issue addresses the issue of uncertainty. Because the truth is we'll never get unequivocal answers. We'll never be quite sure on the economics and social value that NGA will deliver. And we'll never know whether the possible interventions will definitively address the externalities or social value issues in a definitively cost effective way. But in truth this absence of certainty is evident in all forms of public intervention (or indeed virtually any important decision). The question therefore is how such uncertainty should be dealt with.

Enough preamble. Let me explain my thinking on the issue of the economic and social value of next generation access and, once I've done that, explain the process we're going through to test the thinking and, in due course, to populate our framework with data and evidence.

On methodology, a number of important points. First, it is the incremental economic and social value we are looking at, so the counter-factual – the current copper infrastructure – needs to be factored in. This is not simple for a number of reasons. One is that what copper offers could get better (driven by technology) or worse (driven by contention and cross talk). A second is that NGA is not a settled concept, to say the least. Fibre to the home? Fibre to the cabinet? All fibre delivery or mixed fibre/wireless? The specific benefits of NGA are not by the way limited to extra downstream and upstream bandwidth – for example, it may be important to consider that some forms of delivery (fibre to the home) may deliver greater reliability and reduced repair costs than the legacy copper; and it is at least conceivable – on the basis of my conversations about sub-loop unbundling – that fibre to the cabinet might have the reverse effect.

The second issue to consider is how the costs and benefits of NGA vary with coverage. Neither are linear – we all know it will cost more to fibre a household in the Highlands than in London. But it is also the case that two people on a network delivers a lot more benefit than one and, at the other extreme, the knowledge that

everyone is accessible via a network delivers more value than that some or most people are accessible.

The real nub of the question however lies in issues three and four – how might the additional bandwidth be used and how much value does this create; and how much of the value associated with these uses will be captured through normal commercial processes. Some consumer-related possibilities first. Web 2.0 services, which will rely on higher speeds and reliability, such as video calling and next generation games; on-line back-up which will become more valuable as households store more of what they own and value electronically; real-time content sharing, in high definition; security services, the capability to care for the elderly remotely, available both to relatives and to the medical profession; the wiring up, literally or metaphorically, of household appliances and systems, such that they provide a better, easier service for householders. For many businesses, high speed broadband is already available – but closer to ubiquitous and presumably lower cost NGA would accelerate the improvements in supply chain management, reductions in inventory, ability to innovate which have been generic features of increasingly sophisticated ICT deployment. My objective here is not to convince myself, let alone you, that we can

identify now an even quarter way complete list of the applications that will develop – instead it is to provide some grist for the question of value and who captures the value, which I now want to turn to.

Many of the consumer applications I guessed at will, if they are valuable at all, be amenable in theory to being priced at a way that allows normal investment and investment recovery. Carphone Warehouse, BT and others will price the NGA service that permits next generation gaming, as they see fit. But some forms of value won't be so easy for commercial players to capture. Assume NGA permits consumers and employees to travel less and they take up the opportunity. This would mean less expenditure on the infrastructure of travel, presumably with a benefit to the economy. There is the linked (but separate) issue of reduced greenhouse gas emissions, although if a carbon pricing regime were in place then the value of these reduced emissions could be captured, again in theory, privately as opposed to being an externality. Another possibility – in an NGA world why use the broadcast spectrum for broadcasting? Forget analogue switch off, think broadcasting switch off.

Take these three categories of value – reducing necessary transport investment, reducing greenhouse gas emissions, recycling broadcast spectrum. I have heard estimates of their value which are too provisional to be shared – but they are very significant in the context of a £20 billion upper limit for fibering Britain and the greenhouse gas reduction by itself (if you believed the guesstimates) would pay back such an investment in a small number of years. Worth thinking about, particularly as each of these types of value raise difficulties if you wish to ensure that private investors are in a position to secure value from investing in NGA.

I've gone on long enough on the issue if the value of NGA, so three quick concluding remarks on this issue. First we should at least conceptually think of three types of value - private, i.e. capturable by private investor; external i.e. economic valued not capturable by private investors without intervention of some type; and social value – i.e. the benefits of a service to society. I remain open minded to whether these latter should or should not play a role in the eventual story. Second, I have not mentioned the costs of NGA that much, but of course they need to be factored in and, although less complex, do have some challenges. Third, process.

How is the BSG taking all these questions and turning them into answers. We are today or tomorrow commissioning a consultancy to undertake this task. Many of the points I have made today from discussion on the issue of NGA value and in particular with Brian Williamson of Plum Consulting – thanks to Brian, with the consultants, we will be first clarifying the conceptual framework and developing some very rough numbers that we can think about and debate; and secondly trying to scale the values more authoritatively, completing this by April next year. The aspiration is to develop a way of thinking about these issues which gains widespread acceptance – BERR, Ofcom's Consumer Panel and the BSG are funding the work. We have secured the involvement of the Treasury – they will probe our methodology at the point where we decide to expose it to them. We have a steering group, generously chaired by John Newbold of Ericsson. If anyone in the room would like to get involved and would be prepared to help us defray the costs of the work I would be happy to talk to you afterwards.

My next big issue was the hypothetical. Assume that the points I have just speculated about turn out to be true – there's a lot of value in NGA and it won't be captured by the obvious commercial

investors. What then? Specifically, what form of public intervention might be necessary?

The DTI (as was) and Ofcom produced a handy little publication in February of this year entitled 'Public Broadband Schemes – A Best Practice Guide' It has a lightly Super-Nanny-ish tone – sit down and let me explain a few things. But its message is the reverse of that of the nanny state – here are fifteen good reasons why intervention could be misplaced and, if not misplaced, premature.

As the BSG is occasionally characterised as being in favour of public intervention, let me be clear – I endorse every argument in the DTI/Ofcom document in the sense that each of them should be fully considered before intervention happens. This is exactly what is suggested by the title 'A Best Practice Guide'. As I said the BSG has an agenda – timely, sensible investment in NGA – but we have zero commitment to public intervention unless it conforms to the principle of timely and sensible investment and consequently to the rather more detailed thoughts in the DTI/Ofcom document.

But debate tends not to be productive unless pushed. So, in that spirit, let me raise three broad options for public intervention –

government financing the fibering of the UK, government part-financing it and government providing a variety of practical forms of help, short of money. This last option could obviously also be a component of the first two options.

Not to waste time – I don't believe the first option will ever be a desirable outcome in the UK. Actually Singapore, one could argue that Singapore is going this route and will deliver 100 megabytes to a gigabit of broadband to every apartment in Singapore. But it is inconceivable here and I don't regret it, as a citizen, taxpayer or as a Chair of the BSG. The dangers of premature investment, deterrence of private investment, poor execution, all destroying shareholder value in UK Inc look too real; set aside the pragmatic concern – it's not going to happen. The next model, part-financing, looks more interesting. If we can put £5 billion of public money into Crossrail with a further £10 billion coming from the private sector, why not the same proposition in NGA? The reasons of course are the same as the ones I have first articulated – we may be investing too early, we may be filling an investment gap which doesn't really exist and we may do it badly. But, in each instance, the risks are reduced versus 100% public sector financing. But again the

pragmatist in me says ‘don’t look at it now, because the arguments aren’t yet strong enough’.

Instead let me enumerate what I mean by government providing practical help. It’s a long list and some I recognise are worth debating and I might even change my mind on them – but for example:

- Don’t stop RDAs or other nationally-, regionally-, or locally-defined public bodies taking initiatives similar to the one in South Yorkshire, always assuming they have taken BERR/Ofcom advice on whether they conform to the Best Practice Guide and don’t face State Aid issues; this is consistent with the BSG’s Pipe Dreams report published in March which called for limited experimentation in public intervention
- Develop a proposal for the form of public/private co-investment, assuming that the case for this becomes strong enough in due course. This should be informed by the results of the economic and social value work that the BSG is just embarking on

- Deal with the obstacles listed in the Pipe Dreams report – notably the disincentivising effect on NGA investment of the business rating system
- Validate different models of investment. What do I mean by this? Two examples. Sub-loop unbundling, if it has merit as a model, will have problems being implemented - planning issues for example. Open Access – by which I mean community-lead but not necessarily community-financed schemes offering equivalent access to all service providers – once again, if it's a good model, it may need endorsement from central government if it is to happen.
- Encourage the industry, the BSG, BERR to do more spade work than is currently envisaged. What I have in mind includes a regular audit of where capacity issues arise (local access, backhaul, elsewhere) and of the difference between headline and delivered speeds; an exploration of the Open Access model and how it would need to be configured to be a good solution in the UK; an exploration of what would need to happen for DOCSIS 3 to be implemented by Virgin Media; an exploration of the merits and competition risks of BT-led FTTH with ethernet interconnect; an exploration of BT-led FTTC with Ethernet interconnect; an exploration of

FTTC with sub-loop unbundling, led by BT or others; a detailed analysis of the economic efficiency or inefficiency of transmitting from FTTC to FTTH.

These are all substantial tasks, where the Treasury agenda generally doesn't ditter markedly from BERR's and DCMS's, where government's agenda doesn't dither markedly from the BSG's, where real progress can be made with government leadership. This is not to say that the task is easy – more on this in a second. But it is to say that the BSG perspective is that there is a real role for government now, well short of spending substantial amounts of central government funds.

It's time to deal with my final topic. The inference you might draw from what I have said so far is that I believe in a rational world. The BSG, BERR and the Ofcom Consumer Panel commission some work from a good economist which specifies the economic and social value of NGA. Industry and government work out who should pay for what on this basis and fibre sprouts all over the country, leading to a brave, new world. Yes, yes, yes …but. In reality, there will always be an information gap and, more particularly, there will be an understanding gap and a trust gap.

The information gap is the least of it – we will never know for sure that we should invest as a country in NGA but, quite quickly, I predict, there will be a general will to do so. At that point, the understanding and trust gaps will kick in. The understanding gap derives from the fact that not enough people are thinking concretely enough about how NGA is delivered. The Ofcom condoc that we are now preparing to respond to is analytically good – but its “passive” and “active” language is not specific enough. There is a good reason for this – the industry, the BSG needs to get more specific. And this is where trust comes in – talking abstractedly occurs in many environments, one is where people don’t trust each other.

I read the other day that Borges described the Falkland’s War as two bald men fighting over a comb. The image is a graphic one and for some reason brought to mind some of the worst features of telecoms and telecoms regulators’ interactions over the last 20 years. But actually over the past couple of years it’s been better. I have a hunch that industry has the major role in delivering the investment NGA over the next decade. The same hunch say’s there is a minor role for government, for Ofcom and for the BSG in helping to facilitate the avoidance of futile conflict without

sacrificing any genuine commercial to achieve a commercial and public good.