Chapter 1

Executive Summary

"Only a Digital Britain can unlock the imagination and creativity that will secure for us and our children the highly skilled jobs of the future. Only a Digital Britain will secure the wonders of an information revolution that could transform every part of our lives. Only a Digital Britain will enable us to demonstrate the vision and dynamism that we have to shape the future."
Rt Hon. Gordon Brown MP, Prime Minister

AMBITION: TO SECURE THE UK'S POSITION AS ONE OF THE WORLD'S LEADING DIGITAL KNOWLEDGE ECONOMIES

1 The communications sector underpins everything we do as an economy and society, to a degree few could have imagined even a quarter of a century ago. Electronic systems and new technology have transformed core elements of UK industry, our media and our public services.

2 In the City, digital technologies are vital to the billions of transactions carried out each day by the stock exchange and financial institutions. For the designers, researchers and engineers in our advanced industries, computer generation and simulation and reliable large-scale file transfer are essential tools of the trade as they are now for any knowledge-based company. In the high street, stock ordering, inventory control and the cash tills are all completely dependent on electronic communications.

3 As consumers, some 90% of our high street purchases are transacted by plastic which depends on wired and wireless communications to work. That is in addition to the £50bn of consumer purchases and sales through e-commerce that takes place wholly online.

4 In transport, the phasing of street traffic lights, the operation of railway signals and points and the wireless systems that allow aircraft to take off and land safely all need communications; as does the national energy grid that heats,

powers and lights our homes and businesses. In the public sector, our universities, schools and libraries increasingly rely on electronic content and the richness of the Internet. Our National Health Service has one of the largest data and communications systems in Europe.

5 For individuals a quiet revolution has delivered seamless connectivity almost everywhere. That revolution ranges from personal pocket libraries of music, audiovisual content and increasingly electronic literature on a scale inconceivable ten years ago; inexpensive broadband which allows efficient and family-friendly working patterns in the knowledge sector of the economy – and broadband at increasing speeds – the next generation of which, already available to nearly half Britain's homes, allows us to send or receive 200 mp3 music files in five minutes, an entire Star Wars DVD in 3 minutes and the total digitised works of Charles Dickens in less than 10 minutes.[1] It has given us access to a wide range of social networks, allowing us to share experiences and swap and create content. The digital revolution has also led to a huge expansion in the creation and availability of professional content. Today, the typical British consumer spends nearly half of their waking hours engaged in one form or another with the products and services of the communications sector.

6 The UK is already a digitally enabled and to a significant degree digitally dependent economy and society. The Digital Britain Report aims to be a guide-path for how Britain can sustain its position as a leading digital economy and society.

7 A sector that underpins so much of our collective and individual lives is a significant industry in its own right. Its precise scale is evolving continually. The pace of change, the blurring of boundaries between what national statisticians classified as separate activities and the creation of whole new areas of activity make measurement problematic. But on current definitions the Digital Britain sectors account for nearly £1 in every £10 that the whole economy produces each year.

8 Digital Britain is a leading exemplar of the new model of Industrial Activism set out in April's '*Building Britain's Future: New Industry, New Jobs*'. It is one of the major growth sectors on which our economy increasingly depends. It is a sector in which we have many relative strengths. Key themes from *Building Britain's Future* – modern infrastructure, upgraded skills capabilities, converting research and innovation into market-beating products and services, and smarter more joined-up Government – are all themes that feature through **The Digital Britain Report**.

9 Industrial Activism is at the centre of The Digital Britain Report. It is about the considered application of Government resources and policy-making across the areas where public policy and the market meet. There are many activities within the sector where public policy and the market do not impinge on one

1 Copycats? Digital Consumers in the Online Age – SABIP

another: the market is working well and without any wider social policy consequences. Although the Digital Britain Report does not address them all, many are, nonetheless, significant creators of added value and consumer satisfaction. The simple position is that these sectors are working well and do not need commentary, intervention or unnecessary interference.

10 We published the Interim Digital Britain Report at the end of January. That set out a view of the sector and an agenda for Industrial Activism in the large number of areas where the markets meet public policy. We identified five objectives:

- i. Modernising and upgrading our wired, wireless and broadcasting infrastructure to sustain Britain's position as a leading digital economy;
- ii. Providing a favourable climate for investment and innovation in digital content, applications and services;
- iii. Securing a range of high quality public service content, particularly in news;
- iv. Developing the nation's digital skills at all levels; and
- v. Securing universal access to broadband, increasing its take-up and using broadband to deliver more public services more effectively and more efficiently.

11 The aim of publishing an Interim Report was to test whether the programme we had outlined was correct and sufficiently comprehensive, and to gauge the level of support for our focus on this sector. The Interim Report drew a substantial and substantive response from a very wide range of stakeholders, from the general public to global corporations. We received more than 250 formal written responses. Those responses have been supplemented by online engagement through the Digital Britain Forum and other social networking/blog sites, structured engagements in each of the Nations and the Digital Britain Summit at the British Library on 17 April. There have also been in total more than 500 bilateral engagements between stakeholders and Ministers or the core Digital Britain Team.

Digital Britain Unconferences

The Digital Britain Unconferences were a set of UK-wide, volunteer-organised events quickly set up following the Digital Britain Summit on 17 April 2009. Their aim was to produce a representative "people's response" and gather a set of positive, realistic contributions for the report. In the week after the Summit, and with a nod from the Digital Britain team that they were listening, a website was launched with these simple instructions:

"Anyone can attend or hold an event and associate it with Digital Britain Unconferences, you'll just need to summarise your discussions and hold it by 13th May 2009! Yes, time is very tight."

By the 13th May, twelve unconferences had taken place from Glasgow in the North to Truro in the South West. All attendees were encouraged to read the Interim Report and the level of engagement and serious thinking across each event was exemplary. The events included a virtual discussion focusing on rural issues related to Digital Britain and a family unconference held in Tutbury, Derbyshire, as well as large events of more than 50 people in London and Manchester.

Such a speedy reaction was made possible by the free social media tools such as Yahoo Groups, Twitter, Wikis, blogs and instant messaging. Few phone calls were made by the organizers. The process demonstrates what is possible for Digital Britain when these tools are combined with channelling existing loosely connected networks and motivations.

12 The responses to the Interim Report provided a wide range of commentary and new ideas. Many argued that there needed to be an even broader focus on the sector than we had applied in the Interim Report. The responses were also clear that we needed to give more explicit recognition of the transformational power of the Internet and the impact of its cheap scalability and interactive nature on how, as a society and economy, we think and organise ourselves.

13 There was widespread agreement with our analysis of the importance of Digital Britain for the wider economy and society and support for industrial activism in this key sector. But there were also warnings that an excessive focus on the sector could chill operational negotiations and decisions while the participants in the market wait to see whether and how new Government proposals might affect their position. Recognition of that concern has informed the timetable we have adopted in moving from Interim to Final Report: long enough to have a strategic overview of the sector but swift enough that any chilling effect on market activity is minimised.

14 Developments around the globe over recent months show that the focus on the digital communications sector is by no means confined to Britain. The Internet is a global phenomenon. As the Internet expands and touches more

people, many from emerging markets, challenges are emerging in governance, jurisdiction and security. Our challenge is to enable the management of this transition in a way that sustains the Internet founders' ambitions of freedom, entrepreneurialism and innovation.

15 The global scale of the digital communications sector is aptly illustrated by the ranking of the sector among global brands: six of the top 10 global brands by value this year are in the digital sector, one Chinese, one British and four American. That scale and importance is reflected in the focus that governments are giving to it: Australia is creating a entirely new nation-wide high-speed communications network. Other countries around the Pacific Rim from Japan and Korea to Singapore and New Zealand are all adopting next generation networks. High speed broadband and smart-grid technology formed an important part of the USA administration's recent stimulus programme. Elsewhere in Europe, Germany, Finland and France have all adopted national broadband or wider digital strategies.

16 We are at an inflection point in technology, in capability and in demand. Those countries and governments that strategically push forward their digital communications sector will gain substantial and long-lasting competitive advantage. We have sought in The Digital Britain Report to set out a breadth of analysis and proposals for action that will enable the UK to keep pace with and exceed international developments in this sector.

17 We have set out above the importance and centrality of digital communications to our economy and our lives. Throughout this Report we provide 'pen portraits' of the way in which different sections of society are affected. But if we are to realise the potential that Digital Britain has to offer, both for economic and social reasons, we need to ensure that all who want to participate in Digital Britain are enabled and have the capabilities to do so.

18 We are at a tipping point in relation to the online world. It is moving from conferring advantage on those who are in it to conferring active disadvantage on those who are without, whether in children's homework access to keep up with their peers, to offers and discounts, lower utility bills, access to information and access to public services. Despite that increasing disadvantage there are several obstacles facing those that are off-line: **availability, affordability, capability and relevance**.

19 **Affordability** is addressed in part through the roll-out of the Government's £300m Home Access scheme for low income families. In part the market will increasingly address this issue through the wide availability of new lower cost devices, new schemes for recycling PCs to low-income households or new pre-pay mobile broadband.

20 **Capability and relevance** are addressed through three routes: firstly, the recommendations of Baroness Morris's independent report on ICT user skills for adults; secondly, the Digital Inclusion Programme: we are pleased to announce the appointment of **Martha Lane Fox** as the new **Champion for Digital**

Inclusion. Thirdly, the Ofcom-led strategic review of media literacy and, to implement that, the emerging Consortium of Stakeholders, both public and private sector, willing to contribute financially and in kind towards greater digital participation. The Digital Britain Report brings these strands together, with additional funding for demand-side measures, in **a National Plan for Digital Participation** which combines an improved offer to increase motivation to get online, with social networking and outreach, and with skills training. The National Plan will be delivered through tailored local and community-based programmes which build on existing networks. These will draw on the lessons learned in the, to date successful, Digital Television Switchover programme.

21 **Availability** of broadband has two components: the right network today and the right network tomorrow. **To ensure all can access and benefit from the network of today, we confirm our intention to deliver the Universal Service Broadband Commitment at 2Mbps by 2012.** This can be delivered through upgrades to the existing copper and wireless networks. **We also propose public support for the network of tomorrow so that consumers in the Final Third who will not be reached by the market can enjoy next generation broadband.** This will be a longer project which involves what amounts to installing a new network.

22 The Universal Service Commitment and the Next Generation Final Third project are separate projects and need to be addressed in turn.

23 **Firstly, the Universal Service Commitment.** More than one in 10 households today cannot enjoy a 2Mbps connection. We will correct this by providing universal service by 2012. As such, the UK's Commitment leads Europe. It has a measure of future-proofing so that, as the market deploys next-generation broadband, we do not immediately face another problem of exclusion. The USC is also a necessary step if we are to move towards digital switchover in the delivery of more and more of our public services.

24 The Universal Service Commitment will be delivered by a mix of technologies: DSL, fibre to the street cabinet, wireless and possibly satellite infill. It will be funded from £200m from direct public funding,[2] enhanced by five other sources: commercial gain through tender contract and design, contributions in kind from private partners, contributions from other public sector organisations in the nations and regions who benefit from the increased connectivity, the consumer directly for in-home upgrading, and the value of wider coverage obligations on mobile operators arising from the wider mobile spectrum package. The Commitment will be delivered through the Network Design and Procurement Group, with a CEO appointed in the Autumn. We will also discuss with the BBC Trust the structure which gives them appropriate visibility in the delivery process of the use being made of the Digital Switchover Help Scheme underspend, which will be realised in full by 2012.

2 We expect this to be in the order of £200m, based on current estimates of the Digital Switchover Help Scheme underspend

25 The UK's overall electronic communications infrastructure – for mobile and fixed broadband and voice, for corporate communications, for digital TV and sound radio – compares favourably with any in the world. But the first strains are beginning to show: under-investment in backhaul networks – the so-called middle mile – in fixed networks is becoming increasingly apparent. In mobile, the very success of broadband will increasingly lead to congestion in the existing spectrum. Other countries are investing heavily in upgrading their networks to take advantage of technology change. Like our energy and transport infrastructures small variations in performance can have major ripple effects and major costs to the wider economy.

26 **Secondly, the Next Generation Final Third project.** Next generation broadband networks offer not just conventional high definition video entertainment and games (which because of this country's successful satellite platform are less significant drivers here than in some other markets) but also more revolutionary applications. These will include tele-presence, allowing for much more flexible working patterns, e-healthcare in the home and for small businesses the increasing benefits of access to cloud computing which substantially cuts costs and allows much more rapid product and service innovation. Next-generation broadband will enable innovation and economic benefits we cannot today predict. First generation broadband provided a boost to GDP of some 0.5%-1.0% a year.

27 In recent months the UK has seen an energetic, market-led roll-out of next generation fixed broadband. By this Summer speeds of 50Mbps and above will be available to all households covered by the Virgin Media Ltd's national cable network: some 50% of UK homes. Following decisions by the regulator, Ofcom, which have enhanced regulatory certainty, BT Group plc has been encouraged by the first year capital allowances measures in Budget 2009 and the need to respond competitively to accelerate their plans for the mix of fibre to the cabinet and fibre to the home. BT's enhanced network will cover the first 1,000,000 homes in their network. The £100m Yorkshire Digital Region programme approved in Budget 2009 will also provide a useful regional test-bed for next generation digital networks.

28 **The Government believes that the case is made for the desirability of such next generation networks being available to the large majority of the UK population.** It is also persuaded that the economics of network deployment, whether fixed or next-generation mobile, mean that true superfast broadband will be concentrated in the first two thirds of the market in the next decade, leaving the 'final third' served only with current generation broadband. This would be undesirable. Equally, any subsidy scheme has to be carefully targeted to avoid distorting competition or subsidising activities which commercial operators would otherwise undertake.

29 Unlike all other utilities or, indeed media services, telecommunications prices have fallen significantly in real terms over a period of years. Today the UK retail telecommunications market is among the most competitive in Europe. Consumers enjoy either the lowest or among the lowest prices, depending on their usage patterns of any major European market. The cost-based basket of wholesale prices for today's copper-network has fallen by £8 per line per year in real terms since 2005. Over the same period the retail price for combined voice and broadband has fallen by around £90 per annum in real terms.

30 **The Government believes the fairest and most efficient means of ensuring that the overwhelming majority of the country has access to next generation broadband is to share some of that saving and create an independent Next Generation Fund, based on a supplement of 50 pence per month on all fixed copper lines. The Fund will be available on a tender basis to any operator to deliver and will provide a part subsidy for the deployment of next generation broadband to the 'final third' of homes and small businesses, bringing the cost of the initial deployment to the same level that operators face in the commercially economic parts of the market.**

31 In **our wireless infrastructure**, Digital Britain sets out three objectives: firstly, a rapid transition to next generation high-speed mobile broadband; secondly, progress towards universal coverage in 3G and Next Generation Mobile, reliable coverage throughout the rail network and mobile coverage on the London Underground; thirdly, maintaining a highly competitive mobile market.

32 Progress towards next generation mobile networks and greater coverage had been stymied by the differing circumstances and incentives of the existing mobile operators. To address these, the Interim Digital Britain Report proposed a Spectrum Modernisation Programme. The Government appointed an Independent Spectrum Broker to facilitate a solution. His independent report was published in May. The Government accepts the essentials of his report, namely:

- timely clearance of the 800MHz spectrum band being released by television's Digital Switchover;
- its combination with most of the so-called 3G expansion band in a single auction of 10MHz-width blocks of spectrum; and
- the timely liberalisation of existing 2G mobile spectrum in the hands of the existing operators, coupled with caps on the amounts of spectrum that existing operators can acquire and coverage requirements on the 800MHz licences, since that spectrum is particularly well suited to rural coverage.

33 But in certain key areas, notably the size and structures of the cap mechanisms that best promote competition, the Government has come to different conclusions. The Government has also laid out a process of Guiding Technical Arbitration on the 2G liberalisation.

34 The aim of these proposals is to ensure that each of the five existing operators and potential new entrants can bid with a realistic opportunity of acquiring sufficient spectrum to build out a next generation mobile network capable of broadband speeds of 50Mbps in the main urban and suburban markets going down to perhaps 4-5Mbps in the more rural areas. At the same time, we aim to ensure that consumers can enjoy broadly the same degree of intense competition in the market in next generation mobile from which they have benefited to date.

35 **The Government proposes to make the existing operators' 3G licences indefinite rather than term licences (though AIP will be payable to reflect the economic value of the licence) in order to provide certainty for investment and an incentive towards greater roll-out towards universality.** Before 2012/13 this is likely to provide in-building speeds of perhaps 1Mbps but could be boosted by an external aerial to make a meaningful contribution towards the wider Universal Service Commitment. The Government and Ofcom are open to practical proposals from the operators on network sharing, particularly to achieve near-universality.

36 While some details remain to be verified before the Summer, **the Government will make a final decision on whether to direct Ofcom (if so, we intend to consult in September on the form of a Direction to Ofcom, to give the regulator the greatest possible legal certainty to effect these proposals)**.

37 The centrality of our communications infrastructure to our economy and society has grown since the Communications Act 2003 was drawn up. We have also moved from a relatively stable era of copper networks and early deployment of 3G to an accelerating picture of investment in multiple types of next generation networks. To that end the Government believes that **Ofcom's duties should be modernised** in two ways. Firstly, Ofcom should have an explicit general duty to encourage investment as a means of furthering the interests of consumers, alongside its duty to promote competition where appropriate. We also propose to give Ofcom a duty, which is the communications equivalent of the letter from the Governor of the Bank of England, to alert the Government to any significant deficiencies in the coverage, capability and resilience of the UK's communications infrastructure and to report every two years on the state of that infrastructure.

38 One other aspect of our national infrastructure – that of **sound radio** – requires a clear direction from Government. The diverse and flexible nature of the medium places it at the forefront of device and platform convergence. It has many routes to digital, piggy-backing on other platforms – the Internet, mobile phones, digital broadcast television, satellite and cable. But as a medium it is more than just another stream of audio. Its appeal to the listener is that it is portable, intimate, and ambient as a medium. Those aspects cannot easily be delivered unless radio has its own dedicated digital medium – DAB – for which 9 million sets already exist in homes and cars.

39 **The Government accepts that analysis and proposes, with the industry, the supply chain and consumers the process of Digital Upgrade so that all our national broadcast radio stations are DAB-only from the end of 2015.** To that end, the Government is looking to the BBC to extend national DAB coverage so that it is at least comparable to FM radio coverage; and to the supply chain to deliver a range of DAB radios at the key sub-£20 price point that makes swap-out economic. **The Government will also work with the automotive industry, and with the Commission and other key member states in Europe (one of whom has already indicated its intention to prohibit analogue-only radios in vehicles from 2013) on the five point plan set out in this Digital Britain Report to enable the majority of the vehicle parc to be converted to digital before 2015 and with low-cost converters for the remainder.**

40 The Interim Digital Britain Report set out criteria that should be met to determine the timing of Digital Upgrade. The Government will look to Ofcom to monitor progress towards those criteria on an annual basis but believes that the clarity of a date will itself accelerate progress towards the criteria. The Government will also conduct a full cost benefit analysis of Digital Upgrade in radio including analysis of whether there is a case for assistance to specific groups, as there has been with Digital TV Switchover.

41 Digital Upgrade could also lead to the flowering of community-based ultra-local radio services bringing together the smaller of the local commercial stations with the growing community radio sector on FM radio. The Government accepts the case for some liberalisation for the community radio sector. By the time of Digital Upgrade, FM as a nationwide mainstream-quality medium would be coming towards requiring its own analogue rebuild: the infrastructure is 30 years old in places and beginning to degrade. A £200m nationwide rebuild is impractical for a small sector which is anyway migrating to digital. But much smaller care and maintenance capital expenditure could sustain the infrastructure for the community and ultra-local tier of radio for many years to come.

42 In our **creative content industries** Britain has for many years punched above its weight globally. One in 10 of the top album sales in the US market are by British artists. One third of television format sales around the world originate with British production companies. The creative heart of many global CGI, advertising, games, publishing, design or other creative knowledge-economy businesses beats in Britain rather than anywhere else. The transition to digital is however overturning old business models much faster than new ones come into their place.

43 The increasingly easy and perfect digital replicability of content makes it harder to monetise **creative rights**. The growth of Internet aggregators has been good for advertisers, who find new cheap and direct routes to those they need to reach. It is also good for consumers, providing them with free search, email,

storage, mapping, what's-on information services, access to social networks, to create and enjoy user-generated content and multiple other applications. But what aggregators do not do in any quantity however is fund the creation of long-form professional content. The unintended consequence is that a significant part of the paid-for advertising revenues that used to fund long-form content locally now funds different sorts of services and applications for consumers or are repatriated to the global Internet aggregators in the form of returns to the shareholders behind these transformational business models.

44 These changes have good features and inadvertent bad features. But they are facts of the digital age. It is how we deal with them collectively that will determine how well many of our creative industries make the transition to the fully digital world.

45 In relation to rights, **the Government believes piracy of intellectual property for profit is theft and will be pursued as such through the criminal law**. The civil infringement of taking someone else's intellectual property or passing it on to others through file-sharing without any compensating payment is, in plain English, wrong. However, the Government also believes, and the evidence suggests, that most people, given a reasonable choice would much prefer not to do wrong or break the law. The objective of the Government's policy is therefore three-fold. Firstly, to provide a framework that encourages the growth of legal markets for downloading that are inexpensive, convenient and easily accessible for consumers.

46 Secondly, through encouraging suitable information and education initiatives, to ensure that consumers are fully aware of what is and is not lawful. And thirdly we aim to provide for a graduated response by rights-holders and ISPs so that they can use the civil law to the full to deter the hard core of users who wilfully continue unlawful activity. **The Government intends to provide initially for Ofcom to have a duty to secure a significant reduction in unlawful file sharing by imposing two specific obligations: notification of unlawful activity and, for repeat-infringers, a court-based process of identity release and civil action. The Government is also providing for intermediate technical measures by ISPs, such as bandwidth reduction or protocol blocking, if the two main obligations have been reasonably tried but, against expectations, shown not to have worked within a reasonable but also reasonably brisk period.**

47 As part of the Government's desire to encourage inexpensive but legal consumer access to digital content, we will also make some changes to the legislative framework around copyright licensing, to tackle problems such as those surrounding the use of so-called orphan works and thus help digital markets in those works to develop.

48 Fundamental changes to existing analogue models of rights, monetisation and personal security capabilities require a total re-thinking of business models. The private sector will be doing its own research. But as set out in '*Building Britain's*

Future' the Technology Strategy Board has a major and growing role in addressing **collaborative and pre-competitive research and innovation** in key sectors of our economy. Digital Britain is one of the core programmes for the Technology Strategy Board which has committed £30m to Digital Britain-related research and a minimum of £10m to specific innovation programmes. They will use the next generation broadband networks as **test-beds** to enable infrastructure providers, content owners and consumers to come together to trial innovative projects on micropayments and other methods of monetisation of digital content, new rights models and new methods of ensuring personal digital security.

49 Creative content is not restricted to the traditional analogue industries of the performing arts, film and broadcasting. Other countries such as Canada extend the model of cultural tax relief beyond the film industry to the interactive and online worlds. CGI, electronic games and simulation also have a significant role in Britain's digital content ecology and in our international competitiveness. Each of these has the same capability as the more traditional sectors, such as film, to engage us and reflect our cultural particularism. They may in future have a cultural relevance to rival that of film. **The Government has therefore committed to work with the industry to collect and review the evidence for a tax relief to promote the sustainable production for online or physical sale of culturally British video games.** This work will balance any potential support with the need for fair competition and ensure value for money for taxpayers.

50 The genesis of the UK's public policy market interventions took place in the mass, analogue world. We need to address the place for intervention and the transition in the type of intervention as we move from the analogue to the fully digital world. We believe this poses four key questions in relation to public intervention: firstly the evolving role of the BBC in this new environment; secondly, the changing role and remit of Channel 4 Corporation as a multi-media public service counterpoint to the BBC; thirdly, whether we are getting the most from or maximising the visibility of our other publicly-funded content brands; and fourthly whether there are any categories of content beyond news, which this Report validates as a special category, which might justify public intervention.

51 The changes to the commercial market make a strong, confident and independent BBC more vital than ever. The market intervention which sustains the BBC is and should remain the most significant intervention for public service content. **The Government supports multi-annual settlements for the BBC to enable it to plan ahead and to act independently of day-to-day political pressures. The BBC's role needs to evolve to being a public service content partner with a wider range of other media organisations and an enabler of Digital Britain.** Its scale and funding means that it has moved successfully into the online, on-demand and search world. But its scale and impact on the market and the ability of others to monetise services in the

digital environment require careful vigilance by the BBC Trust, particularly in relation to proposals for new services, or new devices such as the broadcast-broadband hybrid Project Canvas.

52 **C4C, much smaller than the BBC and hence more rooted in broadcasting to date, needs a modernised remit which reinforces the moves it has begun to make into multi-media content via 4IP.** C4C could increase its focus on lower unit-cost online means of delivering public purposes, and has a key role in partnering with other cultural institutions (in the same way as it has been a leading partner for the independent sector). The Government has examined in detail three broad structural options for C4C: a strategic joint venture between C4C and BBC Worldwide; a merger between C4 and a private sector partner with majority public ownership; or a stand alone C4, with a new and more online focused remit.

53 The Government has concluded that minority privatisation, even on terms that provided additional funding over the short to medium term, could not be assured of delivering the core public policy objectives over the long term. The Government ruled out direct Exchequer funding for C4, given other public spending priorities. A strategic BBC Worldwide/C4 relationship would require further structural separation of BBC Worldwide, on which further work is needed, and would possibly require changing the terms on which C4 acquired content rights (which would have had wider consequences for the UK rights regime and the production sector). However, this work has uncovered the prospect of purely commercial ventures between C4C and BBC Worldwide which are currently still under negotiation.

54 In its Statutory Review, Ofcom identified a range of content where there were gaps in market provision and where it believed that plurality of provision, beyond the BBC, ranged from desirable to essential, including material for older children and particularly news in the Nations, regionally and locally. This is central to democracy and the holding to account of public institutions. The Government welcomes the thoroughness of Ofcom's analysis. The BBC's partnerships in kind are welcome. But on their own they may well be insufficient to meet the scale of the challenge facing public service provision, particularly in Nations, regional and local news where rival news agendas and journalistic inquiry are central to pluralism.

55 The combination of public policy need and market circumstance means we need to ask if funding is required. The Television Licence Fee is the existing major intervention for content and is the most suitable source for this funding. The Government will therefore consult openly on the option of a Contained Contestable Element of the Television Licence Fee, carrying forward the current ring-fenced element for the Digital Switchover Help Scheme and Marketing (c.3.5% of the Licence Fee) after 2013. This would be independent of the level at which the Licence Fee would be set from 2013. The Government is open to other proposals for funding in the consultation process.

56 Any funding needs to be contestable, allocated against clear range, reach and quality criteria by an arm's-length body. An early priority is for independently-financed news consortia providing an independent stream of multi-media and broadcast news using Channel 3 Licensees' broadcast regional news slots as one means of distribution. Consortia are likely to be able to produce news more cost-effectively than existing Channel 3 Licensees using assets designed for a different era. The result could be a greater investment in journalism, news-gathering and multi-media distribution and syndication than today, enhancing the quality of news in the Nations, regionally and locally.

57 **The Government will discuss with the BBC Trust how the remaining part of the emerging underspend in the Digital Help Scheme, that is not being used to help fund the Broadband Universal Service Commitment, could be used to fund pilots between now and 2012.**

58 In respect of the regional and local online and offline press, the Interim Digital Britain Report invited the OFT, in conjunction with Ofcom to review the operation of the newspaper media mergers regime. The OFT's conclusions, published in parallel with this report, acknowledge the very significant structural and cyclical changes facing local and regional media. The OFT set out a number of clarifications to the operation of the regime which should be helpful to the sector and propose to amend its guidance to ensure a new Local Media Assessment, conducted by Ofcom, takes place in cases relating to local media mergers involving one or more local or regional newspapers which raise *prima facie* competition concerns.

59 For the Channel 3 and Channel 5 Licensees the Government believes there is a strong case for progressive liberalisation, so that they can move towards becoming fully commercial networks, serving the interests of their shareholders, whilst continuing to deliver a focused sustainable public service commitment centred on original production and news. However, the Government is not persuaded that, outside any regions covered by pilot news schemes before 2012, there is a sufficient case for removing the Channel 3 Licensees' obligations to provide regional news. It will review what the position should be from 2013 when the availability and level of sustainable contestable funding is settled. The Government will, however, enable Ofcom to advance by a year the revaluation of the Channel 3 and Channel 5 analogue licences. **Beyond regional news, the Government recognises that Ofcom may need to adjust ITV's other public service obligations up to and beyond the completion of digital switchover, in line with the diminishing value of the licences. The Government is willing to consider legislative change if adjustments beyond Ofcom's current powers are considered necessary.**

60 In relation to independent production, the Quotas and Terms of Trade Framework are working well. The regime is sufficiently flexible to provide an effective framework for commercial agreements that address innovative business models and new media developments. The BBC's voluntary New Media

Rights Framework is widely praised and should be adopted more widely by government and other public bodies who commission online content.

61 We need to continue to invest in **research and innovation** to enable Digital Britain to keep pace with fast moving technical change and to provide the seed-bed for new companies. The UK has a world-leading research base, funded principally through the Research Councils, which will invest £120m over three years in a co-ordinated Digital Economy Programme.

62 The ability of Digital Britain to contribute its full potential to our future economic growth is critically dependent on having enough people with the right **skills** in the right place at the right time to develop and apply the new technologies. We also need more systematically to address Britain's comparative weakness in low and intermediate skills and in the specific Digital Skills for a modern economy. The two sector skills councils, e-skills UK and Skillset, produced an analysis of the gaps in skills provision. They assessed current provision and made a number of detailed recommendations to ensure a healthy pipeline of talent into the professional digital workforce, accelerate the development of the existing workforce and enable companies and individuals to invest in their own skills capability.

63 Ensuring the healthy pipeline of talent starts in the education system, from primary school right through to Higher Education. The Department for Children, Schools and Families' Children's Plan aims to make this country the best place in the world for children and young people to grow up. The Digital Britain report highlights many ways in which the digital agenda can help to realise better outcomes for children and young people, including through the Home Access Programme, by ensuring parents have the digital skills and confidence to support their child's safe, effective and balanced use of the Internet, by ensuring good quality, plural and relevant multi platform content for children and young people and by giving our children and young people the skills to make the most of new technology.

64 At primary level, the Government endorses the Rose Review of the curriculum which upgrades digital (ICT) competence to a core competence alongside English, mathematics and personal development. We are also piloting a new creative entitlement of five hours a week delivered by professionals in the creative and cultural sector. At secondary level the Government is rolling out a major programme of reforms to the 14-19 curriculum including an emphasis on applying digital knowledge real life contexts. New GCSEs in English, Maths and Information and Communications Technology, incorporating functional skills will come on stream from next year. The new Diplomas for 14-19 year olds in IT and Creative and Media will help swell the numbers of those entering the professional digital workforce with the desired mix of practical and transferable skills, industry knowledge and business awareness.

65 In Higher Education we will shortly publish a new HE Framework which will set out how industrial activism and a sectoral focus will be applied in HE, which

will be particularly significant for Digital Britain both as a very significant and growing sector in its own right and as vital underpinning for the wider economy. It will set out how Government will establish clear signals and incentives to universities so that new programmes are established in priority areas and existing programmes re-focused. It will also include the creation of the Skills Funding Agency to ensure that the skills system is prioritising the things that sectors such as digital technology and digital media need.

66 One advantage of independently-funded news consortia investing in developing company and individual capabilities is that they will provide regional and local hubs for the development of multi-media skills. More widely the Government has announced a new approach to embedding skills and training in procurement of major IT projects and programmes, with successful contractors required to put in place a formal training plan for the development of the digital project workforce.

67 The change from analogue to global digital networks requires us to adapt our policy and legal frameworks for **security and safety**. Most of the risks of the offline world – short of physical harm – are replicated in the online world. What is illegal offline is illegal online. But online if the criminal is digital the protector or enforcer is too often analogue or at least the framework within which they have to operate is. We need to catch up, particularly as we move to a world of ubiquitous broadband.

68 The Internet is a truly global network connecting almost two billion users worldwide. It is a participative generative network promoting interactivity, collaboration and conversation. It enables us to transact and share globally, one of its greatest strengths. But because it is not confined to national borders it is not subject to clear national jurisdiction. The Digital Britain Report sets out how the UK Government intends to work to strengthen international collaborative institutions to address that question.

69 There remains a significant role at national level for measures to shape a safe online world. At network level there is high-level Cyber Security responding to threats from serious and organised crime and terrorism, often international. The Government has been developing and will shortly publish its Cyber Security Strategy. Our networks must be resilient to attack. Industry agreed voluntary adoption of minimum standards is the first step to prepare the UK for the increased legal requirement on security standards that will flow from the new European framework. The Government will carry out a major exercise later this year to test our national ability to respond to a telecommunications emergency.

70 At the individual level consumers must be able to communicate, trade and work online with confidence and assurance that their personal data is secure from misuse or fraud. The market is evolving an increasing range of user-friendly personal security applications and after sales support. But giving basic advice about avoiding known problems online is a cornerstone of any personal security approach. The joint industry-Government Get Safe Online campaign

provides a reliable one-stop shop for information on online security. The Government is committed to working with industry to maximise the effectiveness of the campaign.

71 The existing mechanisms for online consumer protection need reform. Agencies overlap and there needs to be greater specialised capability to deal with the different challenges of consumer behaviour in the online world. The Office of Fair Trading has proposed to take a stronger role in online consumer protection. Its five point plan will be addressed in the Government's forthcoming Consumer White Paper, which will set out how UK enforcers and business can work better together, enhance intelligence gathering and tackle online fraud.

72 Personal data is the new currency of the digital world. Privacy and security of that data is an increasingly critical issue. The Information Commissioner is developing a new Code of Practice "Personal Information Online" for publication later this year. **The Prime Minister has appointed Sir Tim Berners-Lee to form a panel of experts to deliver better use of public data.** Effective self-regulation is also vital. The Internet Advertising Bureau's good practice principles for providers who collect and use data for behavioural advertising mirror best practice in the USA adapted for the E.U.'s data protection framework.

73 In terms of online content safeguards, again effective and adequately resourced self-regulation and clarification systems are important. For electronic games the Government is adopting the Pan European Game Information System for boxed games and believes the system can adapt well to the online world. But additional action beyond self-regulation is needed against criminal material and to secure online child safety. The Internet Watch Foundation and the 'notice and take down' system on Internet sites is widely regarded internationally as a model. But it needs a secure resource base. The Government is challenging the industry to ensure that it has one and will also explore with the IWF and the European Commission the scope for a Pan-European model with commensurate funding.

74 Apart from its influence on the overall economic and legislative framework, **Government impacts on the Digital Economy** in four ways: In delivery of public services, as a major purchaser of digital systems, as commissioner and holder of data and content and as a strategic hub for the development of Britain's future digital strength. This Digital Britain Report sets out the next steps in the journey towards truly Digital Government – Government of the web not just on the web.

75 The UK is further ahead than many other countries in that journey. But citizens' expectations are rising. The private sector's re-engineering of its business practices for the digital world is accelerating. And the pressures on public expenditure require a step change in the efficiency of the delivery of purchases and ICT procurement.

76 Today almost half the UK population use the Internet to access information about Government or local council services, or to complete a Government transaction online. Directgov receives 14m visits each month. Significant savings can be achieved through online delivery – 45% in the case of DVLA Vehicle Excise Disc issue.

77 Some public services are already delivered almost exclusively online. The move to universal 2Mbps broadband by 2012 as a baseline service standard should be the trigger for a further programme of **Digital Switchover of Public Services**. By doing so, online will become the primary means of access, though with a safety net for those unable to access the service online. Against clear criteria, each relevant Government department should identify at least two candidate services to form part of the first Digital Switchover of Public Services programme before 2012.

78 In **procurement**, significant progress has been made towards a virtual public service service network with the first major Public Sector Network procurement taking place this year. Government cloud computing, the “G-Cloud”, has come an important step closer with the publication of the Government’s CIO Council/Intellect strategy, augmenting the current development of the business case for investment in technical development and physical facilities. These major developments require a single-minded focus to oversee Whitehall-wide standards and systems. This Report recommends that the Government Chief Information Officer should have a ‘double lock’ on approving all significant ICT procurements by Government departments.

79 Public Service data and content play an increasingly important role in the digital economy. The Government has embraced the vision of the Power of Information Task Force and, in respect of important data sources for innovation, such as geospatial data, agencies are significantly improving access to data and clearer licensing pathways from innovation to large scale commercial use.

80 Government commissioning represents a third of the total investment in professional UK online content. Despite existing guidance many public online commissions still prohibit the re-use of IP. This leads to wasteful warehousing of rights. NESTA will pilot a simplified IP framework for digital media bringing together PACT, the Cabinet Office, Kew Gardens and Arts Council England.

81 Finally, implementation of our plans for developing digital infrastructure and participation, including Digital Television Switchover, Digital Radio Upgrade and implementation of universal broadband and the Next Generation Fund, will be carried out through a number of delivery bodies. To achieve maximum efficiency and coherence to all of this activity, **Government and Ofcom, together with other partners, will by the Autumn assess the scope to unify these groupings into a single Digital Delivering Agency with greater capabilities and economies of scale**.

82 The Digital Britain agenda encompasses a broad spectrum of policies, some of which are the responsibility of devolved administrations. Not all the initiatives referred to in the report, therefore, are UK-wide. The UK Government hopes to work in partnership with the devolved administrations to deliver a successful digital economy across the UK but recognises that for some policy areas, such as education and some public services, a different approach may be taken in different parts of the UK.

83 Detail on the implementation programme for Digital Britain is set out in Chapter 9 of this Report. Broadly, the actions in this report are divided into three categories. Firstly, **Outcomes** where we have reached a final decision, secondly, **Proposals** where we have set out a proposed course of action for further analysis or engagement and thirdly, **Recommendations** where we have set out our views on areas which do not require immediate next steps. Some of the actions in this Report will require legislative measures and a Bill to give effect to these areas will be introduced as soon as Parliamentary time allows.