CabinetOffice

Prime Minister's Strategy Unit

Connecting the UK:
the Digital Strategy

March 2005

A joint report with:
Department of Trade and Industry

dti

Contents

Foreword by the Prime Minister and Secretary of State for Trade and Industry

This Government has always recognised the impact that information and communication technology can have on our everyday lives, at home and at work. We have worked successfully with industry and invested in a range of ground-breaking programmes to transform the UK from a poor relation to a digitally rich nation in just a few years. We now have a world-leading position in digital TV. We have the most extensive – and one of the most competitive – broadband markets in the G7. And virtually all households in the UK are within easy-reach of a UK online centre where they can access the internet in a safe, secure and supportive environment.

While we can rightly celebrate this progress, we cannot, and should not, think the job is done. We must harness the power of ICT to modernise public services so they are as personalised, efficient and responsive as the most successful companies. We must be in the forefront of new technologies to remain globally competitive. And most important of all, we must make sure the whole of society can experience the benefits of the internet. Too many people still don't enjoy the advantages of that ICT offers.

We are committed to ending the digital divide for families with children by the end of the third term. The Prime Minister's Strategy Unit and the DTI, in partnership with industry, are setting out this strategy to make the UK a world leader in digital excellence and the first nation to close the digital divide.

The strategy set out in this report includes a national scheme to give more secondary school pupils the opportunity to access PCs and laptops – equipped with parental controls - at home and new ways to fight against internet crime including a new multi-agency child internet safety centre to protect our children. We have a range of measures to improve accessibility to technology for the digitally excluded and ease of use for the disabled including giving all learners on basic skills courses an email address.

We will also launch a 'digital challenge' – modelled on the highly successful European City of Culture competition – which will be an exciting opportunity for local authority partnerships to develop and showcase really innovative ways of modernising public services and engaging the hard-to reach with the digital world.

We strongly welcome this report as a clear sign of our continuing commitment to ensure that everyone in our country has the opportunity to benefit from the transformative power of ICT. The conclusions in this report will be implemented by government and will play a crucial role in improving the cohesion of our society, the wealth of our economy and the quality of life of our people.
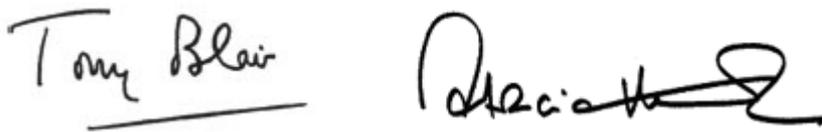
Rt Hon Tony Blair MP and Rt Hon Patricia Hewitt MP

Executive summary

1. In the last five years, we have made substantial progress towards our vision of a 'digitally rich' UK. Since 1999 there has been a transformation in the way the UK economy and civil society have embraced new technology and the UK has moved from bottom of the pack into the premiership of digital excellence. We have a world-leading position in digital TV. We have one of the most advanced and most competitive mobile phone markets in the world with 3G now starting to make a real impact. We implemented the EU telecoms framework rapidly and in full, and with the advent of Ofcom we remain the leader in regulatory - and deregulatory - innovation.

2. In broadband, we have gone from being a poor relation to having the most extensive – and one of the most competitive – broadband markets in the G7. By this summer, over 99% of the population will have broadband services available. Prices are falling and data speeds are increasing. In terms of competitiveness, the UK has maintained its third position overall, behind Japan and Canada.

3. However if the UK is to thrive in the future, to succeed in competitive markets and to enjoy better and better services, all of us need to be confident and comfortable, living and working in a digital world. Information and communication technology (ICT) has become all pervasive in our working lives and increasingly in our homes as well. How we adopt and use this technology will be crucial for our future prosperity.

4. We need therefore to create a country at ease in the digital world. Where all have the confidence to access the new and innovative services that are emerging, whether delivered by computer, mobile phone, digital television or any other device, and where we can do so in a safe and secure environment.

5. But there is still evidence of a digital divide with some groups largely excluded from benefiting from access to the Internet. But cost is not the only

or even the main barrier to take-up. First, some individuals may not have the confidence or skills to use computers, even though they may actually want to get online. Others do not see the relevance of the Internet to their needs. They do not see how ICT and broadband particularly can transform their lives.

6. Government has a clear role in helping to promote and increase public awareness about the Internet and harness the economic and social returns in a way that benefits all society. We aim to make the UK a world leader in digital excellence with public services that are even more responsive, personalised and efficient than the leading companies that have so successfully deployed the Internet to serve their customers. We will help protect consumers from the dangers of the "darker side" of the digital world. We will use ICT to minimise social exclusion and ensure that the UK is the first nation to succeed in closing the digital divide.

7. In order to achieve this vision we need to harness the transformative power of ICT and to make the rewards of that transformation available to all by overcoming the barriers to take-up. The Government is therefore committed to taking the following action:

➢ The Government will ensure that ICT is embedded in education to improve the quality of learning experience for all, re-engage those who have been disaffected and equip children with skills increasingly essential in the workplace. All learners will have their own **virtual learning space** where they can store and access their work. We will also aim to give secondary school pupils – including those from low-income backgrounds - the opportunity to access **ICT at home** and ensure schools can buy equipment at the lowest possible prices through a **national procurement scheme**. As part of this scheme, we will aim to have anti-virus software, firewalls and parental controls installed as standard.

➢ The Government will launch, in collaboration with industry a **"Digital Challenge"** awarded to a local authority and its partners – both public and private - to establish by 2008 universal local access to advanced public services delivered through and powered by information technology. The

winner will have the opportunity to demonstrate the ability to transform service delivery through a holistic use of technology to deliver truly modern services for modern citizens.

➤ The Government will work with the ICT industries to create the safest possible online environment. Backed by the police, charities and the industry, the Home Office will set up a **multi-agency national Internet safety centre** to deter criminals targeting the UK for Internet crime and reassure parents. We will work with the **banking** industry to make that sector a market leader in terms of online authentication. The Department of Trade and Industry will explore with industry how best to deal with unsuitable material, including more effective use of parental controls, firewalls and web blocking technology and to raise awareness on best practice in operating safely online.

➤ The Government will work to create the right environment for the creation of innovative broadband content. We will set out **guidance on broadband content procurement** by the public sector, informed by an industry perspective. We are already a leader on mobile and wireless technologies. We want the UK to be a world leader in allowing people to use or reach any content, with any device, anywhere, anytime. Content, whether as a business tool, for entertainment, a community portal, e-learning or generated by consumers themselves is the main driver for increasing the effective use of ICT.

➤ The Government will draw up a **vision of public service delivery transformed by modern technology and a strategy for achieving that vision.** As part of that strategy, the Government will consider how it moves its business to a wholly digital environment where it is appropriate and cost-effective. Private-sector services transformed by modern technology to give more choice, greater personalization, convenience and flexibility have become enormously popular. There is a real opportunity to transform public service delivery if government seizes the opportunity offered by effective use of modern information technology in a strategic way.

➢ The Government will ask **Ofcom** to take account of the prospects for home broadband take up, with a particular focus on uptake amongst the more disadvantaged. We will also ask Ofcom to monitor take up across social groupings and age bands to give a clear picture of the development of the market and the prospects for widening access to broadband technologies.

➢ The Government is committed to improving accessibility to technology for the digitally excluded and ease of use for the disabled.

- We will take further steps towards closing the digital divide by building on the network of UK Online centres and other communal access points - giving **adult learners** the support, incentives and skills they need to make the most of ICT. We will also ensure that **every adult who enrols on a basic skills course is given an email account.**

- We will assess any changes necessary to the **Home Computing Initiative** to make it more attractive to lower earners and to businesses to implement.

- We will give a clear commitment to ensuring that all government websites and online services present no barriers to use for those with **disabilities.** We will also **raise awareness** both in private and public sectors about these barriers.

➢ These measures will make substantial inroads in creating a more digitally inclusive society. We also expect the market to drive take-up and use, through the creation of new and innovative services, falling prices and awareness-raising. So the Government will **review the position in 2008** in order to explore whether further action is necessary to close any residual digital divide.

8. The issues raised above are truly cross-departmental. Taken as a whole they go beyond the scope of any one department or the new e-Government

Unit and even beyond government into the private sector. It is therefore important to establish a process or structure that drives forward the implementation of the digital strategy and reports on progress. Under Ministerial ownership, OGC and eGU will support DTI in determining the right structure to drive forward a programme to implement the strategy. This will include appropriate representation from government departments, No10, and other key stakeholders eg the Broadband Stakeholder Group.

A 'digitally rich' UK – progress to date

"*Universal internet access is vital if we are not only to avoid social divisions over the new economy but to create a knowledge economy of the future which is for everyone. Because it's likely that the internet will be as ubiquitous and as normal as electricity is today. For business. Or for individuals.*"

The Prime Minister – Knowledge 2000 Conference.

1. The Government in 1997 identified the growth and application of ICT and the development of electronic services and the skills to use them as crucial to the UK economy. The UK was lagging behind and the Government resolved to tackle these issues and move the UK to the forefront of e-commerce and digital services. Modernisation of the UK's economy and public services through new technology was placed centre stage in the 1998 Knowledge Economy White Paper and the consequent decision to create the Office of the e-Envoy and Minister for e-commerce.

2 In the last five years, we have made substantial progress towards our vision of a 'digitally rich' UK. We have a world-leading position in digital TV. We have one of the most advanced and most competitive mobile phone markets in the world with 3G now starting to make a real impact. We implemented the EU telecoms framework in full with the advent of Ofcom and we remain the leader in regulatory – and deregulatory - innovation.

The picture in 1999

3. On the eve of implementation of the White Paper the first e-envoy had to coach a country at the bottom of the league in key areas of the e-economy. Internet access prices were among the highest with the UK costing around $15 per month more than leading countries for moderate levels of use. Our broadband market was non-existent placing us 24th out of the 32 OECD

countries for take-up. Less than 1 in 10 households were online and the population that were online were predominantly young, rich and male: only 9% of the over 65s, 3% of the lowest income decile and 52% of males compared to 39% of females were online in 1999.

4. It was a similar story for UK businesses. UK business attitudes towards the Internet were conservative with only 7% of board directors seeing the Internet as a strategic issue for their business. As a result only 25% of businesses had a web site and fewer than 16% were selling online.

5. Furthermore the use of ICT in education was seriously lagging – only 17% of primary schools were connected to the Internet and pupil/PC ratios were high with 18 pupils per PC in primary schools and 9 in secondary.

The Turning Point

6. Since 1999 there has been a transformation in the way the UK economy and civil society has embraced new technology and the UK has moved into the premiership of digital excellence.

Pro-competitive policies have driven access prices down to among the lowest in the world
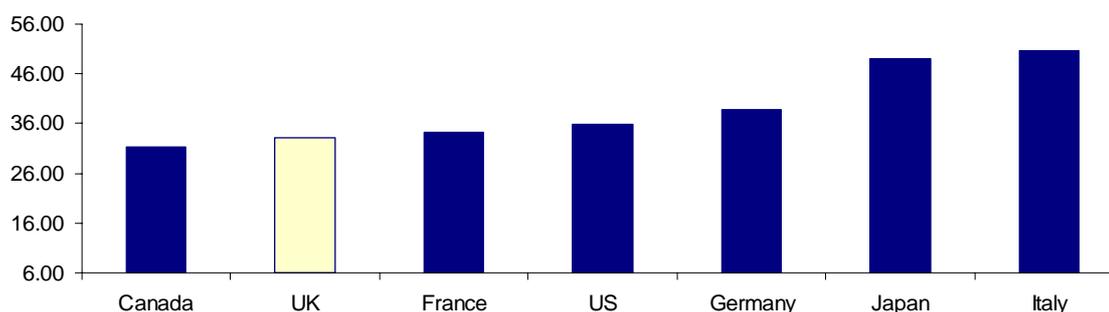
Source: OECD Communications Outlook Sep 2002 Off-peak @ 40hrs/ month rate

UK - the most extensive & competitive broadband market in the G7

7. In broadband, we have gone from being a poor relation in 2001 to having the most extensive – and one of the most competitive – broadband markets in the G7. At the beginning of 2002 only 66% of the population had broadband services available to them, and there were only 350,000 subscribers. Now, 7 million addresses (twenty times as many) have broadband connections with a new connection being made about every ten seconds.

8. By this summer, over 99% of the population will have broadband services available. Prices are falling, data speeds are increasing; and services are becoming more and more compelling – for example online photo albums, auction sites, and most recently, the delivery of video on demand. In recent months we have seen a range of higher speed broadband services (2 to 8 Mbit/s) being launched by operators.

9. These developments combine to place the UK in a strong position internationally. In 2001 we said that we wanted the UK to have the most extensive and competitive broadband market in the G7 by 2005. The recently published International Broadband Market Comparisons shows that the UK reached the position of the most extensive broadband market in the G7 during Q3 2004, jumping from third place by overtaking Japan and Canada. In terms of competitiveness, the UK has maintained its third position overall, behind Japan and Canada. BT, in response to competitive pressures, has invested hundreds of millions of pounds to bring broadband to over 99% of the population this year.

Rural Areas have not been left behind

10. The digital revolution has not been restricted to metropolitan centres. The Government has worked closely with those in rural areas to ensure that the benefits technology can deliver are shared across the UK. We have worked with stakeholders at all levels in the public, private and voluntary sectors to

identify best practice and value for money to address the problems and issues relevant to rural areas.

11. And the results have been impressive. Just recently the Community Broadband Network announced that it had identified community broadband activity in more than 550 locations in the UK (and many of which have been in rural areas), with services provided by 260 organisations (community, public and private enterprises). Many of these projects are innovating around access technologies (mainly wireless networks), community engagement and the development of new content and services.

UK – the best place in the world for e-business

12. We also said we wanted the UK to be the best place in the world for e-business and this is fast becoming a reality.

Business use of ICT has become pervasive
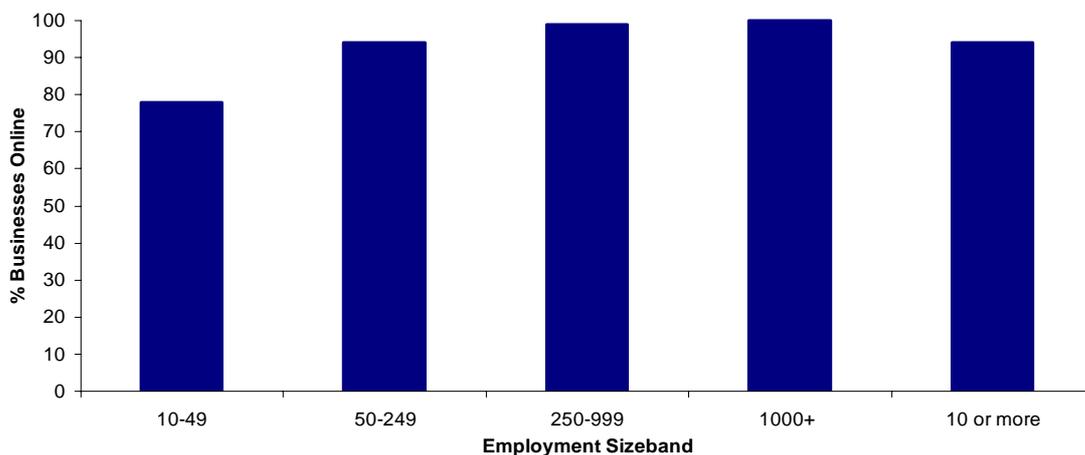
Source: Employment weighted data from
2002 ONS e-commerce Enquiry

13. The International Benchmarking Study, released in November 2004, shows that UK businesses are now amongst the most sophisticated users of ICT in the world, certainly competing with the G7 and Australia, Ireland, South Korea and Sweden. The study places the UK in third place (almost level with

Ireland and very close to leaders, Sweden) according to its index of sophisticated use of ICT - this is a leap of four places from 7th in the previous year. The report also shows that 69% of UK businesses are now using broadband. Other key findings include:

- UK businesses are amongst the leaders for adoption of **new technologies** such as Voice over IP and desktop video conferencing.
- The proportion of **micro and small businesses** with a website increased by 16 percentage points.
- 30% of micro businesses are now trading online, up from 17%, and 31% of small businesses are trading online, up from 22%.
- Many more businesses now measure the benefits of ICT and are among the most likely to have both a written business plan and a documented ICT strategy.
- Businesses are using ICT more to interact with others. UK businesses are among the most likely to publish information for customers online and more businesses are buying from suppliers online.
- More businesses are connected to the Internet through broadband, due to xDSL usage increasing from 13% last year to 24% this year

14. Today the effective use of broadband is the key to improved productivity and economic competitiveness. This is well understood by our competitors and our inward investors. A survey by the Institute of Directors[1] found that 84% of respondents using broadband saw a quantifiable increase in productivity and 61% said broadband had delivered cost savings.

Ofcom: Creating dynamic and competitive market place

15. Regulatory change has played an important part in the creation of the UK's strong broadband market. The UK has put in place a world-leading regulatory framework, bringing the regulation of the converging markets of

---

[1] Institute of Directors, 2004 'Broadband: its impact on British Business'

broadcasting and telecommunications under a single regulator, Ofcom, in December 2003.

16. The reduction in cost of *local loop unbundling* services[2] is another key development for UK broadband competition. BT have now unbundled over 31,000 loops (fully and shared). We are seeing existing LLU operators operating more aggressively, launching new services of increasing sophistication and speeds of 4Mbps and more, and we are also seeing serious investment commitments by new LLU operators. **LLU prices are now amongst the lowest in Europe.** By the end of March 2005 LLU operators will be providing service from more than 600 exchanges. Many of these will have multiple operators providing service. These developments will provide the platform for operators to grow towards their forecasts of 1 million LLU lines by December 2005.

The safest place in the world to access the Internet

17. Notwithstanding the many opportunities created by the rapid development of ICT, there are also risks and threats. The government has worked with industry to make the UK one of the safest places in the world from which to access the Internet.

Protecting children

18. The UK is now a world leader in child protection on the Internet. The Internet Watch Foundation (IWF) was set up with the industry and law enforcement agencies to combat the incidence of child pornography images. The Home Secretary's Task Force on Child Protection on the Internet was established in 2001 to help protect children the world over from abuse fuelled by criminal misuse of new technologies. The Task Force has, for example, developed and run public awareness campaigns, developed models of good practice for providers of various Internet services, developed training for

---

[2] A process by which BT's exchange lines are physically disconnected from BT's network and connected to other operators' networks. This enables operators other than BT to use the BT local loop (the access network connection between the customer's premises and the local exchange, usually a loop comprised of two copper wires) to provide services to customers.

professionals and proposed changes to legislation. Task Force members are currently working with the BSI to develop a kitemark standard for child protection software.

19. The UK is now setting the agenda in the G8 where for example we are working to develop an international database of child abuse images and tackle organised crime's involvement and we are planning an Internet safety conference to raise the profile of the issue and share good practice with our G8 colleagues.

Combating e-crime in general

20. There has been much work on information security. Recent successes include the progress on Project Endurance - a public/private partnership to help consumers and small businesses protect themselves against security threats. In addition, a new ITsafe (www.itsafe.gov.uk) service will provide the less technically literate users with proven, Plain English advice on protecting their computers and mobile phones. The Home Office is also working on an e-crime strategy that will enhance the ability of the National High Tech Crime Unit, set up in 2001, and local police forces to pursue cybercriminals.

UK is a world leader in high-quality, innovative content

21. People buy modern technology for the services it delivers, not for its own sake. Much of the emphasis over the last three years has been on ensuring that the infrastructure for broadband technology is widely available. This infrastructure facilitates the growth of high-quality, sophisticated broadband content. These networks enable the government to deliver advanced broadband services in education and health and other key public services – such as medical imaging transfer and video and audio-rich pedagogic material – more freely. The National Programme for IT in the NHS demonstrates that the government is committed to using broadband to deliver services, but putting the service/content first and using broadband as a necessary platform to deliver it.

22. With our end-to-end capability in content production and distribution, there is considerable potential for the UK to leverage these advantages, to accelerate growth and international competitiveness. The UK's world-class creative industries have the potential to take advantage of the growth of broadband and its pivotal contribution to a thriving knowledge economy.

Government investment has brought Internet access into every community

23. In order to tackle the clear inequality of access to the Internet in 1999 we have invested in bringing the Internet into every community. There are now over 6,000 UK online centres in the UK – places were people can access the Internet in a safe, secure environment and where they also receive technical support and training. UK online centres have targeted areas where they are likely to have the most impact on inequality – they operate in all 88 Neighbourhood Renewal Areas and in 2000 deprived wards. Centres are in diverse venues ranging from community centres to libraries, colleges and high street cyber-cafés. **95% of households are within 5 km of a centre** and virtually all households in the UK are within 10kms of a UK online or Learn Direct Centre. Independent research has found that 96% of the population is aware of where they can access the Internet. Over 75% of centres are broadband connected.

Modern services for modern citizens – public service delivery powered by information technology

24. Modern services in the public and private sector are powered by robust, functional information technology. Technology delivers the right information to the right place at the right time to allow front line workers to do their jobs. The use of information technology allows a decision to be taken in real time, without back office processing or data entry delays. The technology is, quite rightly, invisible. Public services are also increasingly provided on a self-service basis over the Internet.

25. The Government is investing billions of pounds in new systems to support service delivery. In many cases, such as the NHS National Programme for IT, we are delivering radical solutions, unique in the world. The following are only a few examples:

Self Assessment online: Individuals can see their tax accounts live online; raise questions for personal reply; and opt to receive reminders by email or mobile phone. This facility, developed, built and delivered in under a year, was used 4 million times last year.

Directgov: Launched in April 2004, this is the Government's flagship digital service, designed around the needs of the user. It brings together information from across many Whitehall departments in one place, making it easier for people to find and access government information and services. A powerful demonstration of how departments can work together to deliver more public services built around the needs of the citizen. January 2005 saw more than one million unique users accessing the site.

Halton 'Benefits Express': an IT system on a bus, connected to council networks by mobile phone. Benefits' staff are able to process claims in people's houses, and help with access to other services. Processing time for benefits claims has been reduced from eight weeks to less than a fortnight, saving time and avoiding frustration for both claimants and front-line staff.

The Government Gateway: Running for the past four years, the Gateway is a centralised registration point for government services online, offering nearly 50 services from 20 different government entities to 5.1 million registered users. Over the last 12 months, Gateway has had 100% operational availability, while January 2005 saw 275 000 successful authentications take place in just one day. Over the next 12 months, more than 24 new

departments or Local Authorities are due to make services available on the Gateway.

Three-quarters of Government services are now available electronically
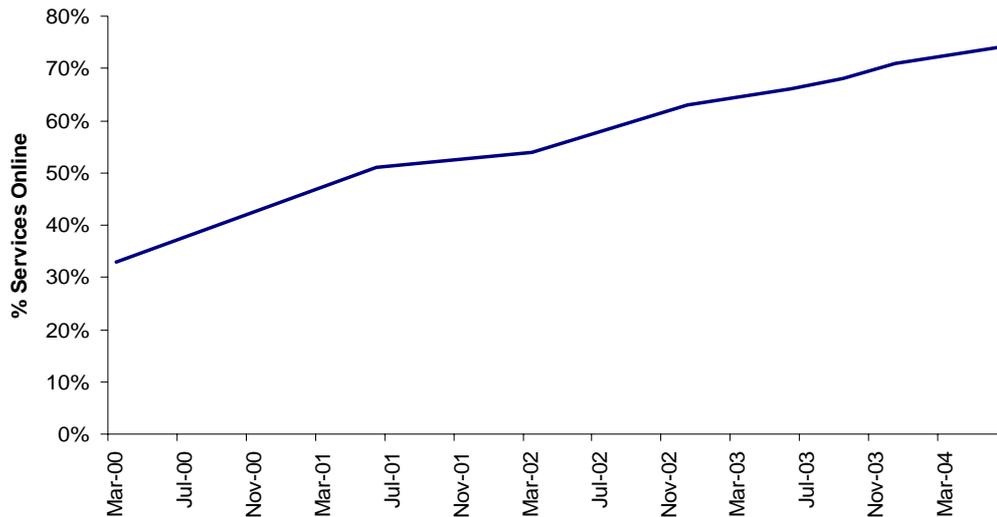
8,600 Jobpoints: This is the world's largest network of touch-screen kiosks and the most popular government webservice. Jobpoints are provided in Jobcentre Plus offices and other locations - ranging from supermarkets to prisons – for people to search for and display job vacancies, training courses, childcare providers and other information.

Department for Work and Pensions Payment Modernisation Programme: Direct payment of benefits into a bank or building society account is replacing the old fashioned order book, providing a safe, convenient, modern and more efficient way of paying benefits. Over 21 million accounts are already being paid by direct payment, now the normal method of payment for new customers.

Pension Credit: A complex IT project to deliver the new Pension Credit system. 1.8 million personnel records were migrated without disruption, and

the system is now delivering Pension Credit to 2.6 million households (3.2 million individuals). It won Project of the Year 2004 from the Association for Project Management.

> **OS MasterMap**: a definitive digital map of Great Britain, providing detailed geographic information for a wide range of business and government purposes. OS MasterMap underpins a huge range of commercial services used by millions of people every day.

Young people's services – UCAS is on the brink of going all-electronic. Student Loans are moving online. Nearly 30% of practical driving test bookings are now made online - around 40,000 bookings a month. Booking of theory tests online has now reached nearly 40%, with over 170 000 tests booked in the last quarter of 2004.

Companies House electronic registration service: This electronic service was developed in partnership with Company Formation Agents. 65% of company registrations are now made via the electronic route **– reducing red tape, making it easier to start a business.**

Businesslink.gov.uk: A website providing business, particularly SMEs, with easy access to government information, advice, funding and training. The site has had more than 5 million visits since its launch with around 1 million page views per week by the business community.

26. Looking forward, the challenge for Government is to ensure that we seize the opportunities offered by the widespread availability of high speed networks and the growing acceptance of electronic services in people's daily lives. Some services enabled by modern technologies have had a profound impact that was not foreseen: the budget airline industry is now a social phenomenon reaching almost all parts of society, but would not have been

possible without the Internet. Mobile phones are very much the norm in almost all sections of society below a certain age and people use them to maintain their personal networks of friends, family and contacts in a way that was not envisaged when they were first launched. The message for us is that people will adopt new technologies when the value proposition to them as individuals or families is strong enough, and that we must be open and quick to seize the opportunities that present themselves to us over the coming years – opportunities that we may not yet recognise. Rising to this challenge will be an important task for the Cabinet Office e-Government Unit and Council of Government Chief Information Officers as they draw-up a strategy for the use of ICT in transforming public services.

The digital divide: problems with low take-up

1. Despite this significant progress, take-up of e-services remains an issue particularly for some groups who have most to gain. There is clear evidence of a digital divide which prevents those from low income backgrounds from benefiting[3].

Families with home computers and the Internet by social grade
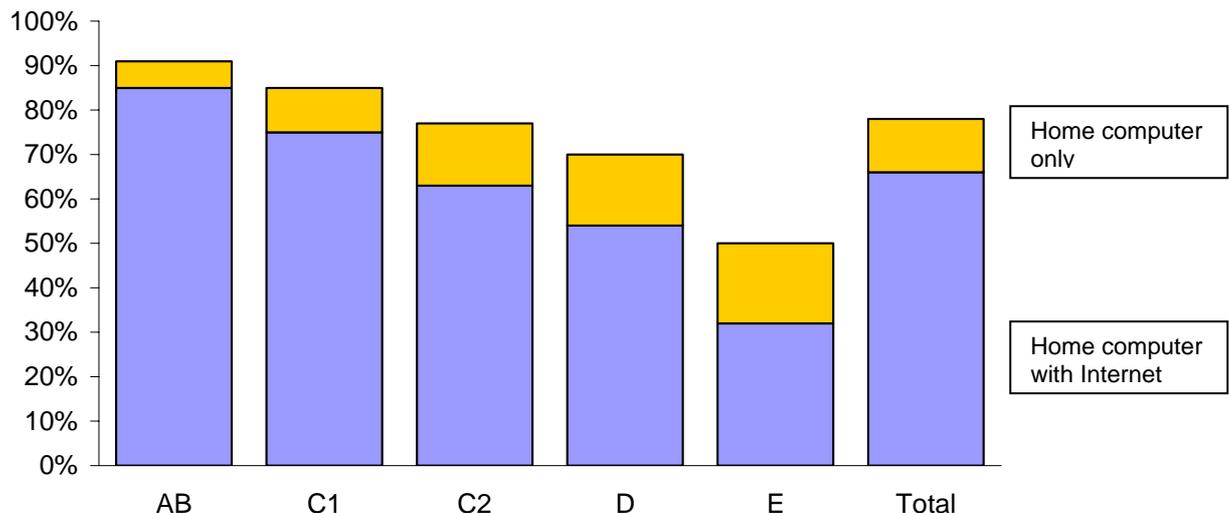
Source: BMRB TGI (2004)

2. What do we know about the "digital divide"?

➢ There is a strong correlation between household income and Internet access. People from socio-economic groups A/B are three times more likely to have home access than DE members.[4]

➢ In the third quarter of 2004, 48% of households in the UK had not chosen to access the Internet from home.[5]

➢ Increases in take-up of home Internet have been entirely among the C1 and AB groups. The rate of connection among the DE groupings has remained around the 20% level since 2001.[6]
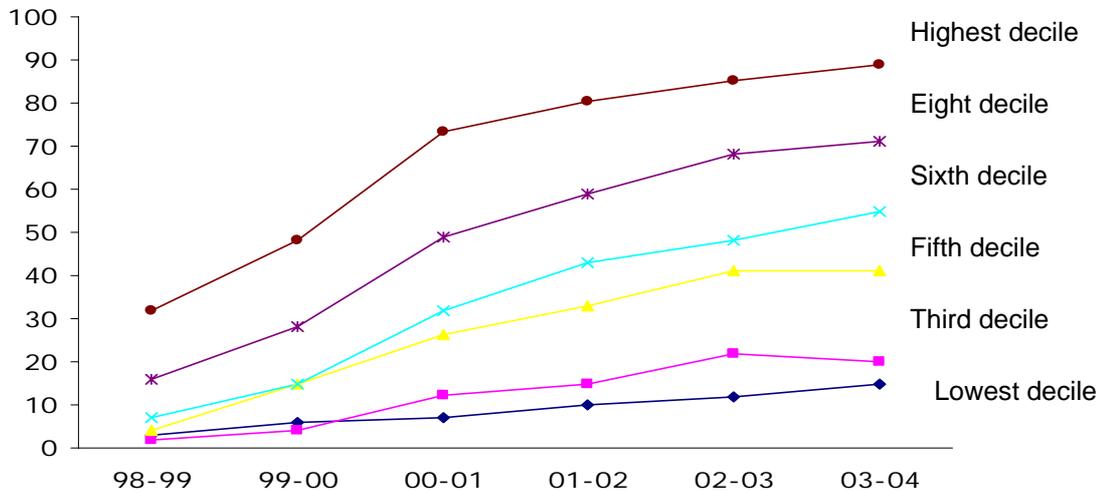
---

[3] SEU, 2005 'Inclusion through Innovation' forthcoming report from the Social Exclusion Unit
[4] BMRB TGI (2004)
[5] ONS, December 2004, 'Internet Access' http://www.statistics.gov.uk/cci/nugget.asp?id=8
[6] Hall Aitken, 'Evaluation of CMF funded UK online centres - final report'

Proportion of households with home internet access, by income decile

Source: ONS (2004)

➢ According to the ONS, 40% of children have no home access to the internet.[7] However, it should be noted that Prof Sonia Livingstone[8] found that 23% of children have never accessed the internet from home and currently 29% lack such access.

➢ Single parent households are significantly less likely to have home Internet access than households with two adults.[9]

Main reasons for not having the internet
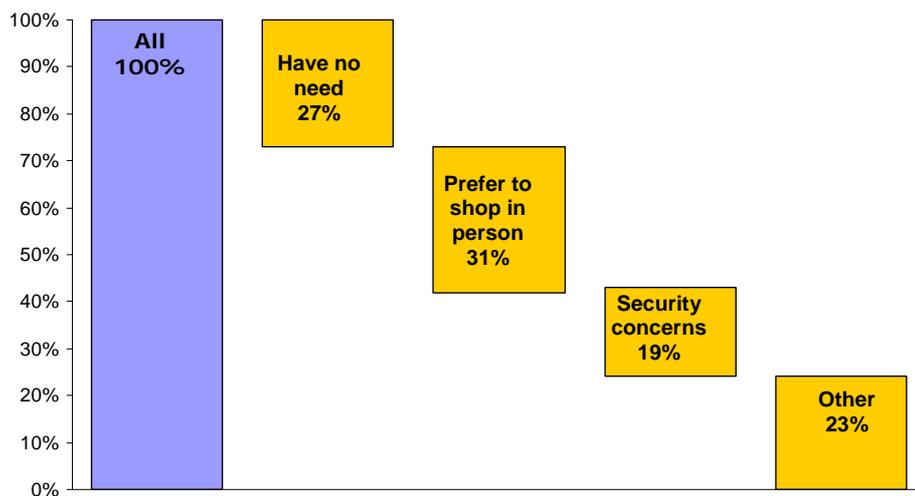
Source: ONS (2004)

---

[7] ONS, December 2004, 'Internet Access' http://www.statistics.gov.uk/cci/nugget.asp?id=8

[8] LSE, UK Children Go Online

[9] Family Resources Survey - Great Britain 2001-02

3. Why does the divide exist?

➤ Research evidence shows that improving access can help to some extent in bridging the digital divide. **By far the biggest barrier to accessing ICT is interest and motivation,** followed by a lack of perceived need.[10] 53% of adults who do not use the internet state that they 'Do not want to /need to / have an interest'. Trials aimed at closing the digital divide in disadvantaged areas suggest these perceptions do change once internet technology is introduced into lives.

➤ **Confidence & knowledge** - 35% of all Internet non-users lack the knowledge or confidence to use the Internet.[11]

➤ **Total operating costs** of PCs and the Internet are still too high. However, research shows that many non-users estimate the costs of purchasing computing equipment and the expenses incurred for Internet access to be more than twice the real cost.[12]

➤ **PC packages are too complex** which reinforces the view that 'PCs are not for me'.

Main reasons for not using the Internet regularly

ONS 2004

---
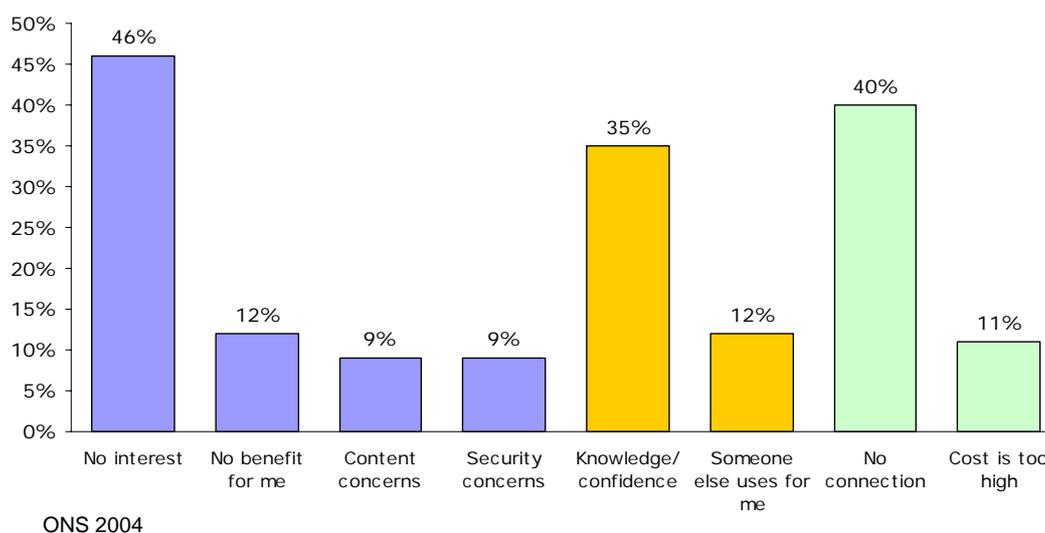
[10] Hall Aitken, 2003 'Evaluation of CMF funded UK online centres'
[11] ONS, October 2004' First Release: Internet Access,'
[12] GLA, 2003, 'Connecting people, tackling exclusion?'
[13] Hellawell, 2002 'Beyond Access – ICT and Social Exclusion'

- **Content** is critical. Most people who suffer social exclusion have yet to be convinced that there is content relevant to them. Driven by the market, the Internet is full of content aimed at affluent consumers targeted at middle income groups[14]
- **Broadband is important in 'hooking' users as it** supports a richer, more interactive content, increases reliability, and makes the Internet a more satisfying experience – less waiting, more surfing.

4. Education, information, support and easy access to ICT are therefore crucial to ensuring that people from low income backgrounds reap the benefits of the digital world.

% of respondents agreeing benefits of the internet: comparison between trial and control disadvantaged areas
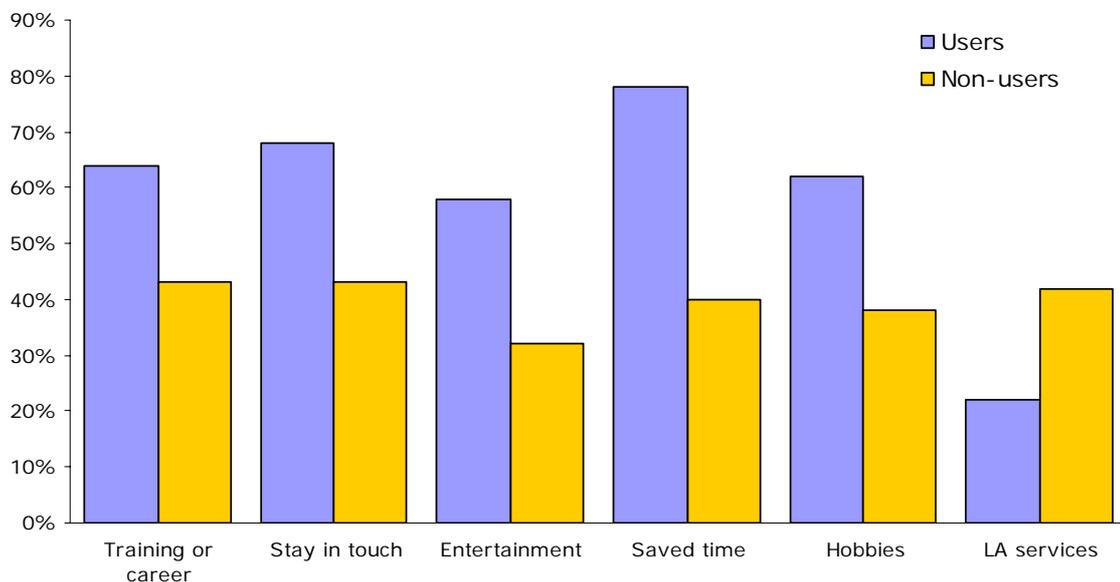
Source: Everybody Online annual report (2004)

---

[14] Hellawell, 2002, 'Beyond Access – ICT and Social Exclusion'

What is the rationale for Government intervention?

1. A sound efficient strategy should rely primarily on *market dynamics* to increase uptake by households and firms. Intense competition, falling prices and increasingly useful services, applications and content are currently driving 50,000 broadband connections per week. Telecoms and Internet access have pronounced economies of scale, and prices are falling as uptake increases (from about £25 to £16 per month for a broadband connection in the last year). At the same time, we are seeing a major downwards adjustment in the price of PCs, with a good system retailing at £350 compared to over £600 for the lower-function entry-level system 12 months ago. New broadband technologies - wireless, 3G and fibre - are also emerging and growing. The market is working well at present, and a prime objective of policy should be to maintain that momentum.

2. **But there is clear rationale for government involvement in tackling the digital divide and minimising social exclusion; ensuring the correct national skills framework; regulating where there is market failure; and delivering responsive public services**

3. **A competitive ICT market is key to driving down price and improving choice.** Some form of market regulation may be required to ensure the market continues to function competitively and that there is no abuse of significant market power or blockages to new technologies. Ofcom are currently undertaking a strategic review of telecommunications which is examining these issues in consultation with the industry.

4. **ICT promotes economic and efficiency gains and improves quality of life.** The move to e-government should result in significant efficiency savings. For example, the long-run economic gains from broadband technology have

been estimated as being between £5-22bn per year[15]. Realising these gains will require widespread adoption and familiarity with ICT and broadband, and this might only be achieved with government intervention. As section 2 stated, currently there is a **lack of knowledge and information** about the benefits that ICT can offer and **lack of skills** in making the best use of ICT. Strengthening community access with national, regional and city-wide initiatives will also play a role in marketing the benefits of ICT in a cost effective manner.

5. Government has a role in reducing the digital divide & social exclusion in general. Technology has an important role and huge potential as an enabler to help bridge the existing barriers to inclusion – either by improving access to information, connecting disparate communities together or by empowering service providers to deliver joined up services to those with multiple problems. There is considerable evidence of the benefits of access to a PC and the Internet at home or in the community for the excluded:

CRISIS –Evidence from the Crisis Open Christmas shows the potential of ICT to engage homeless people. The Crisis Open Christmas Internet Café saw over 100 users a day. ICT is also one of the most popular services on offer at Crisis Skylight where it is used by homeless people to keep in touch with friends, look for work and education opportunities, and access services.

- ➤ **Increased public service access:** Research shows that low income groups who have Internet access make more use of public services than those who do not.[16]
- ➤ **Improved employment prospects:** Over 30% of Internet users in the UK have searched for jobs online.[17]

---

[15] A CEDR report for the Broadband Industry Group, November 2003 'The economic impact of a competitive broadband market'
[16] GLA, 2003 'Connecting people, tackling exclusion?'
[17] Digital Europe, March 2003 'Social Responsibility in the Information Society'

- ➤ **Financial benefits:** Research has shown that using the Internet for four years or more saves people an average of £268 per year.[18]
- ➤ **Social benefits:** ICT can repair some of the social 'despair', which can blight old age. Age Concern research shows that 66% of the people aged 55 years and over who are computer users felt that it has a positive impact on their lives.
- ➤ **A lifeline:** Online forums can provide a 'lifeline' to people suffering from debilitating conditions, depression and insomnia. For example a symptom of Parkinson's disease is insomnia - the Parkinson's disease online forum attracts a high proportion of visitors at night-time, when other forms of support may not be as readily available.

Claire Russell from the Big Issue Foundation points out that:

"*The interesting thing about the Internet is … It's actually very equalising for the people we work with. They don't need to have a home, can access it at any time, and it's anonymous. It has definitely enhanced the skills and knowledge base of homeless people.*"[19]

- ➤ **Reaching the hard to reach:** For a number of groups including homeless people, people leaving institutions, and young runaways, the ability to send emails via personal Internet accounts, provides a way of re-establishing contact, rebuilding and maintaining relationships with friends and family.

6. In summary, there is now a strong rationale for a new emphasis in public policy towards harnessing the economic and social returns on these investments and doing so in a way which benefits all parts of society. The Government has a clear role in:

- Ensuring competitive regulation

---

[18] GLA, 2003, ''Connecting people, tackling exclusion?'
[19] The Guardian, 16 July 2001'Using the Internet to help the homeless'

- Helping promote and increase public awareness about ICT
- Pressing ahead with delivering public services online
- Developing public infrastructure to ensure universal availability
- Ensuring that everyone has the opportunity to acquire key ICT and basic skills to make best use of ICT

7. These objectives may be reinforced through government support for pilot programmes at the local and/or community level.

8. ICT can either create the new class divide or can reduce barriers. Our policies have to ensure the latter.

How can we close the digital divide and become a world leader in digital excellence?

1. The Government has succeeded to a large extent in creating an environment in which ICT can flourish and has taken steps to tackle the digital divide. But to harness the transformative power of ICT and to make the rewards available to all by overcoming the barriers to take-up, the Government is committed to taking the following action:

Raising our game:
Making the UK a world leader in digital excellence

ACTION 1: Transform learning with ICT.

2. Education is one of the public services that stands to benefit most from the power of information and communications technology (ICT). It is through a direct experience of the opportunities and enjoyment that ICT offers that children and their parents are most likely to be turned on to the ways that ICT can transform their lives.

3. While we have seen government investment and local innovation in this area, growth has also been haphazard: systems are often incompatible with each other. Each institution or organisation has the freedom to buy its own system and support services. The result is that they are often more expensive than they need be. There are too few economies of scale.

4. We need a more strategic approach to the future development of ICT in education, skills and children's services. To address this need, the Government has set out a bold, but deliverable e-strategy to maintain our world leading position in the use of ICT in pedagogy over the next 10 years. The strategy (http://www.dfes.gov.uk/publications/e-strategy/) focuses on what the technology can do for informing and advising citizens, for supporting children, young people, and adult learners in their encounters with the system, and for transforming the experience of learning.

> **Impington Village College** (near Cambridge) - Impington Village
> College finger prints each child before each lesson. All 1,300 students
> arriving for classes have to place their fingertips on a scanner, which then
> registers them as present. If a pupil does not check in, a text message or
> email is sent to the child's parents to inform them that their child is absent
> from school.

5. Our strategy is about embracing this future so that all can benefit. We can only harness the new technologies to our ambitions if we are clear about what we want, and how to use ICT to achieve it. A society in which every child, every learner, every citizen, has the opportunity to develop their potential, is feasible if we know how to exploit these technologies. In five years we can build the common ground that brings all our education and children's services to the critical baseline of being able to use the technology well. In ten years, building on the newfound capabilities of our workforces, our newly skilled graduates, and our new appetite for innovation, we could be anywhere – if we have the ambition and the imagination to go there.

6. We want to use technology to make it easy for learners of all ages to manage their learning and educational progress. In the early stages this will mean having a ***personal online learning space*** provided by their school or college, where they can store their own course materials and assignments in digital form, and record their achievements.

An electronic portfolio for lifelong learning

7. Over time we should see the technology join up better across institutions, so that this is available to learners to build on wherever they go – to further learning, or to work-based learning. And in the future it will be more than simply a storage space - a digital site that is personalised, that remembers what the learner is interested in and suggests relevant web sites, or alerts them to courses and learning opportunities that fit their needs. We will

encourage all organisations to support a personal online learning space for their learners that can develop eventually into an electronic portfolio for lifelong learning.

No more school satchels!

Example of school which participated in BECTA study[20]

A 12 year old girl entered the classroom and logged onto the school intranet and located her personal folder to continue working on a project which she began by reviewing her progress to date. Adjacent to her sat a boy who had also entered the room carrying no work materials. He immediately logged onto the intranet, checked his inbox and located the comments and suggestions that his teacher had provided. Having accessed his previous work he now made a number of alterations, building upon the advice received. He saved the revised version to his folder. He then began work on the new task that he had received from his teacher. He saved this as a rough draft in his personal folder and e-mailed his teacher to confirm that he had completed the work set. The teacher sends feedback to the student via email.

More opportunities for dialogue with the school

8. This personal online support opens up real possibilities of keeping parents much more engaged with what their children are doing, and able to have an *online dialogue with the school* on how they are progressing. The school record on their child's progress could be made available, under the right security arrangements, for the parents to link to online.

---

[20] Underwood et al, 2004 "Connecting with Broadband: Evidence form the Field

Facilitating collaboration between schools

9. For teaching staff it means easy and efficient ways of keeping in touch, giving feedback on students' progress, and managing marking and assessment. Unifying our approach to technology means they will be able to collaborate more easily with colleagues in other institutions and offer wider curriculum choice. With more flexible e-learning resources available online, teachers can adapt the curriculum to their learners' needs and interests. Technology is the key to personalised learning.

> **Victoria Crivelli, vice-chair of the British Dyslexia Association's computer committee:**
>
> *"Computers are endlessly patient - to hear something like a talking book spoken back to you as many times as you like is great for pupils who need literacy support or have short-term memory problems."*
>
> (Many word processing packages speak back text and offer on-screen word banks, from the simple to the more complex.)

Encouraging lease of laptops[21] & PCs to pupils

10. Every learner should be able to have **full home access, both hardware and connectivity** so that they can take full part in the advantages of e-learning. 56% of households with children have Internet access. This is relatively high by international standards but still means that 44% do not have access. There is evidence to suggest that pupils who have access to computers at home, controlling for other factors, have higher attainment that those who do not have access at home.

11. Eggbuckland community college (winner of the BT award for most innovative use of ICT) introduced a "laptop stream". Five classes - two each in years 8 and 9, and a pilot group, now in year 10 - lease laptops via a

---

[21] The term laptop is used throughout this section to include other portable computing devices such as a notebook, a dossier or tablet PC or a PDA.

charitable fund set up by the school, and use them in classwork and homework. In a skills-based assessment, the average achievement of year 8 students in the laptop stream was that expected by year 11s, and last year the laptop group outperformed the rest of the year in SATs. When the year 10 class was awarded £1,000 to spend on equipment, they decided as a group that lockers would be useful, worked out the necessary specifications themselves, and sourced a supplier half the price of the one the school had found.

Broadgreen High School in Liverpool raised sponsorship funding and suggested to the parents that they help buy laptops that students could take home on a rota. Although the school is in a relatively deprived part of Liverpool and 51% of the pupils are on Free School Meals, 42 parents are making regular contributions of £2 per week.

Assessment of the impact has been largely anecdotal but nevertheless very promising. There have been reports of parents preferring to work on the computer with their children and children preferring the computer to hanging around on the street. School attendance has also improved, particularly on the day students collect their laptop at 8.30am. Indeed, one of the additional benefits of schemes to give pupils access to laptops is that their families can also gain access. In the case of Broadgreen High School many families were able to experience computer technology for the first time.

---

12. Most schools can only afford to provide laptops to pupils through setting up a parental contribution scheme. These schemes are often facilitated by the E-Learning Foundation. The contribution requested of the parent varies and some schemes allow for smaller contributions from parents with relatively low incomes.

13. Despite some of the benefits of pupils having access to laptops as demonstrated by the examples of best practice above, less than 10% of schools operate laptop leasing schemes. The main barrier is cost. The

parental contribution schemes do overcome this barrier in some schools. But for others, persuading parents to contribute is more difficult. This is because they do not have much spare cash and moreover, need to be convinced of the benefits of a laptop scheme – that they will in fact gain a bang for their buck.

14. The E-Learning Foundation has come up with a scheme to address this problem. It offers a finance deal to lease laptops for four years but the parents and the school do not have to pay anything for the first year. In fact they only have to start paying after 15 months. By this time parents are usually persuaded of the value of enabling their children to access laptops and are willing to make a contribution. But the scheme is self-funding for most schools as the E-Learning Foundation recoups the cost of the first year's lease through a levy it charges to manage the scheme when it is up and running. The Donation Management Service removes the administrative burden of managing parental donations and also claims Gift Aid for the schools. The E-Learning Foundation is a not-for-profit organisation so the costs of this scheme are kept as low as possible. The scheme also offers full warranty and insurance cover which is important as some heads have experienced problems obtaining affordable insurance because of the excessive wear and tear caused by children handling the laptops.

Summary of Connect & Learn offer

- A deferred four year lease on portable computing devices – either a laptop, a notebook, a dossier or tablet PC or a PDA.
- A grant for the cost of the extra year.
- Four year warranty on the devices.
- Insurance against accidental damage and theft
- Microsoft Windows XP Operating System (unless otherwise specified).
- Administrative support from the Donation Management Service.
- Additional options such as an 'airbag' laptop rucksack, Tracker software and GAP insurance; subject to availability.

---

15. Only in the schools with the highest numbers of Free School Meal pupils does the scheme need additional funding from the E-Learning Foundation. For example, Hilton Primary (58% FSM) in the North East was awarded £10K. The 2005 Budget announced that DfES will double their contribution to the E-Learning Foundation from 2005-06, so now more schools can be supported in implementing leasing schemes. In addition, the 2005 budget has announced that a further £25m per annum will be available in 2006-07 and 2007-08, for **schools in deprived areas to invest in home access to ICT for their neediest pupils.**

16. The E-Learning Foundation scheme focuses on leasing laptops; we would also aim to give parents and pupils the choice of a whole range of ICT equipment to access at home. PCs may in some cases be more suitable particularly for younger children; rather than laptops which are more vulnerable to damage and loss. The more pervasive use of memory sticks will also reduce the need for laptops.

17. To further reduce the costs of purchasing or leasing hardware, **we will introduce a national procurement scheme**. Currently there is little co-ordination in IT procurement as a whole with many schools even negotiating their own individual deals. BECTA is currently charged with devising framework contracts which would give schools some choice of supplier but achieve greater economies of scale. However, we will aim to go one step further by constructing a procurement model based on the 'reverse auction' principle procurement, which has been successful in health procurement and will be developed by the Office of Government Commerce (OGC) in partnership with BECTA.

18. So through our new national procurement scheme, the additional funding for schools in deprived areas and the E-Learning Foundation's 'Connect and Learn' scheme, **we will aim to give parents and pupils the opportunity to benefit from access to computers at home at a low cost.**

ACTION 2: Set up a "Digital Challenge" for Local Authorities to achieve both excellence and equity in ICT.

18. Together with industry the Government should sponsor a "Digital Challenge" prize for a local authority and its partners – both public and private - to establish by 2008 universal access, advance public service delivery and provide a test-bed for best practice in e-government.

19. This could be a groundbreaking partnership of the private, public and community sectors in demonstrating the best e-enabled public services as a model for the future. It would focus on extending the reach of e-services to excluded groups such as older people or children in poor families without access to e-services as well as driving take-up by the e-literate. But emphasis would also be placed on piloting high-quality, high-speed public services. Candidates would be able to draw upon proven expertise and techniques highlighted by the experience of ODPM's national programmes for IT, the forthcoming e-government unit strategy for future government services and build upon the lessons for using technology to address inequality highlighted by the forthcoming report from the Social Exclusion Unit ('Inclusion through Innovation').

20. This proposal has been welcomed by the private sector. There is considerable good will and an appetite on the part of some of the major players to demonstrate what can be done. This is a virtuous circle in that extending e-services has clear benefits in extending the market reach of service providers. It would also have tremendous synergy with the excellent work being done to nurture hi- tech sectors under the Science Cities concept which is developing the regional science and innovation agenda.

21. Equally from a local e-government perspective there are at least a dozen localities where the service and technical infrastructure is already sufficiently developed that they would enthusiastically rise to the challenge of creating the next generation of e-services by building on the successful implementation of the first phase of service delivery. Clearly the efficiency agenda could also

benefit significantly from this. But we would make clear that the focus was on service delivery, and in particular on bridging the digital divide.

22. We could use this as a **test bed** to learn more about delivery of e-government services – for example, what does the citizen customer want from digitally-enabled government? What density of community access is required? What support is needed? What obstacles arise and how are they overcome? We should require a strong emphasis on **evaluation and behavioural research**, especially into the customer proposition and behaviour. We would also hope for democratic innovations to be employed – such as business improvement districts or new mechanisms such as neighbourhood improvement districts to be used to fund and manage additional infrastructure.

23. The challenge will last for three financial years 2006/07 to 2008/09, with details to be announced in summer 2005. In summary the scheme will involve:

➢ Regional 'heats' of the competition to select the Local Authority partnership which should represent their region.
➢ Each regionally nominated community will receive £100,000 to develop their bids.
➢ The national competition would be based on the 'City of Culture' model with an independent panel composed of a range of experts and stakeholders as selected by the joint governmental steering group.
➢ The winning bid would be awarded the Digital Community status and a substantial cash prize to implement its bid. Both the public and private sectors have expressed a strong commitment to contribute funds to the challenge. We are aiming for a cash pot in the region of £10m - the exact amount will set out in a prospectus published in the autumn.
➢ Digi-community designation would be for three years and would include dissemination and experience sharing, not just delivering in the locality. The lessons would feed into the broader UK Digital strategy. (See annex 1 for more details on the Digital Challenge).

ACTION 3: Making the UK the safest place to use the Internet.

24. As we all, and particularly children, increasingly use ICT as an important part of our daily lives, the issue of safety is becoming more important. We must work to ensure that everyone, but particularly parents and children, are confident in how to effectively manage how the day to day risks that manifest themselves on the Internet.

25. Clearly there are trade-offs. Prioritising safety above efficiency and ease of use could impose costs on industry which would be passed on to consumers and inhibit innovation. We need to work with industry to strike a balance between ensuring that either at work or at home, the Internet is safe to use, while still encouraging an innovative Internet sector.

New Measures

26. The government has worked with industry to make the UK one of the safest places in the world from which to access the Internet. However, more needs to be done to continue to address this challenge:

1. A multi-agency national Internet safety centre
The Home Office - backed by the police, children's charities and industry - will set up a multi-agency child Internet safety centre. The exact details of the centre are to be worked out, but it is likely to: carry out proactive operations to deter paedophiles and identify priority targets; produce, co-ordinate and disseminate tactical and strategic intelligence for local police forces, including managing the database of recovered illegal images; act as a centre of expertise and advice for law enforcement, communications industry, child protection and offender management; act as a point of contact for UK ISPs, children and parents and overseas law enforcement; and carry out research. The creation of a "national centre" sends a powerful message to reassure parents and children that we are putting in place dedicated expert resources to protect children and that UK law enforcement will continue to identify and

prosecute paedophiles. The centre will also rely on support from the industry to provide a significant contribution building on core Government funding.

2. On-line identification

Criminals use false identities to commit crime online.

- We will work with the **banking** industry to make that sector a market leader in terms of online authentication. A framework that enabled greater confidence in the identity of online participants would create a higher level of confidence in both transactions and social contact.

- Subject to Parliamentary approval, the Home Office will ensure that **ID cards** are developed in such as way that they add value to the whole range of digital transactions.

Identity management is an important part of the strategy being drawn up the e-Government Unit. This will work with **Government Connect,** a new programme - which is being rolled out to all Local Authorities in England by Dec 2007 – designed to tackle identity management.   Our aim is to achieve an environment wherein customers will be able to complete government transactions online without having to send by post their passport, driving licence or utility bill as proof of identity.

3. **Better use of tools to manage digital content**

Much illegal content is promoted by spam. This is certainly true of phishing, viruses and other malware, illegal pornography etc. The Internet Watch Foundation reported a fall in the number of reports of images of child abuse in 2004 and partly link this to increased use of spam filters by ISPs and consumers.

- The Department of Trade and Industry explore with industry new ways of dealing with unsuitable material, including more effective use of

parental controls, firewalls and web blocking technology and to raise awareness on best practice in operating safely online.

▪ As part of our home IT leasing scheme for schools, we will ensure that equip all laptops and equipment leased to children with AV, firewall and parental controls as standard.

ACTION 4: Work to create the right environment for the creation of innovative broadband content.

27. We want the UK to be a world leader in allowing people to use or reach any content, with any device, anywhere, anytime. Content, whether as a business tool, for entertainment, a community portal, e-learning or generated by consumers themselves, is key to driving up the effective use of ICT. Through the DTI's Technology Programme, the Government is already providing funding to encourage innovation and research in developing broadband content. We are also working with the RDAs and Devolved Administrations in implementing initiatives to promote high quality content, focusing on policy outcomes for the regions and nations in four key areas: business, learning, public sector and community.

28. In addition the Government places importance on the following objectives.

- There must be respect and understanding for the role played by intellectual property in content creation. Theft of intellectual property undermines investment and devalues the value chain.

- The development and intelligent use of digital rights management (DRM) solutions should be encouraged, as they provide protection for intellectual property and the potential to expand consumer choice in the content market. The ultimate success of DRM however will be determined by the market, notably consumer acceptance.

- The role of the BBC will be critical in broadband service delivery. The BBC has the resources to experiment in ways that the commercial market cannot and to provide support, both through commissions and partnerships, for the nascent broadband content sector. The Graf report into the BBC's online activity set out measures to reduce or mitigate any crowding out effect of the BBC in the marketplace.

29. The Government will set out guidance on broadband content procurement by the public sector, informed by an industry perspective. We will continue to strive to create a policy framework which will best underpin investment in broadband content by addressing genuine market failures and ensuring that there are no barriers for which government is responsible, to allowing entrepreneurs to invest in content creation.

Constructing a robust strategy to achieve our vision

ACTION 5: Set out a strategy for transformation of delivery of key public services.

30. Modern technologies such as the Internet, the mobile phone, information technology in supply chains and the service sector are transforming the way that consumers engage with companies. Services and products have become cheaper, easier to access, more personalised and are delivered in real time. For consumers and businesses, choice is increasing, prices are falling and even traditional markets are beginning to change radically. More decisions are put into the hands of consumers themselves, rather than being made by the supplier – even price. These changes have permeated popular culture: whether it is buying a book, booking an airline ticket, buying a car, or insurance or simply clearing out the garage and selling things online. After the hype of the dot-com era, society is now moving to an information age.

31. People using these private sector services do so in a continuum with the public sector services that they also consume. People will increasingly expect public sector services to deliver the same personalization, choice, speed and '24x7 access' they become used to from good private sector services. As society changes, the public sector has to change with it. Rather than simplistic cost-cutting and performing existing processes more efficiently, the challenge is to transform the delivery of public services, where cost effective and appropriate, seizing the opportunities presented by using modern information and communications technology.   Given the scale upon which the public sector operates, it is <u>only</u> the best use of information and communications technology that can provide a comparable degree of choice already apparent in commercial services. And, in many cases, despite the large scale of the public sector, the same technology and techniques used by companies can be used – reducing delivery risk and cost.

32. The Government is investing billions of pounds in new systems to support service delivery such as high speed networks to move vital data around the country – everything from children's homework to MRI scans to criminal case files. The transformation of the criminal justice system exemplifies the scale of change required:

Criminal Justice

33. In the criminal justice system (CJS) the Government is delivering the technology to allow information to flow throughout the system and deliver faster, more reliable and more accurate services to frontline workers, victims and witnesses. Under-investment in ICT has been as serious and endemic a problem in the CJS as that identified by Wanless in the NHS. By March 2008 anyone involved in criminal justice – its users or people working within it - should have electronic access to the information they need, when they need it. Ending the great criminal justice paper chase will improve performance across the whole CJS and benefit everyone who uses it.

34. To achieve this, the Government is making an unparalleled investment in criminal justice IT. £2.24 billion is being ploughed into infrastructure and systems between 2003 and 2008. To maximise the benefits, we have set up a co-ordinated and comprehensive programme right across the system which includes:

- Modern IT infrastructure, so that people working in criminal justice have access to standard office applications such as email and internet-based services;
- National systems for managing cases with priority given to the police, CPS and magistrates' courts;
- Linking up the case management systems in each agency so that information can be shared and made available to those who are authorised to see it. We are also working with practitioners, such as barrister and solicitors, to help them make the business changes necessary to achieve the full benefits of the technology.

Health

35. The Wanless report identified huge historic underinvestment in effective, joined up ICT in the NHS. This government has corrected this imbalance with an unprecedented national programme with world class leadership. The National Programme for IT (NPfIT) will improve the quality and convenience of care - by ensuring that those who give and receive care have accurate, timely information. This represents an initial additional investment of £2.3bn on new information technology systems and services for the NHS to April 2006, increasing over the following seven years of the Programme, and is an essential element in delivering the NHS Plan.

36. We are providing an **electronic patient record** for every person. Subject to confidentiality and security safeguards and a framework of patient consent your medical record can be accessed at any time day or night to enable precise, personalised care taking account of all relevant parts of your medical history. This is impossible with a paper-based system.

37. **Paper prescriptions** will gradually be replaced by an electronic system that, among other benefits, will lead to fewer injuries and deaths every year by accidental mis-prescribing where prescription forms are handwritten and mis-interpreted, or where misunderstandings occur between GP and pharmacist. The electronic transmission of prescriptions will make it easier for GPs to issue prescriptions and more convenient for patients who will be able to choose where to collect their medicines. The system will be safer for patients and prescription errors will be fewer in number. The system will be more efficient overall and will save costs and time.

38. The confusing and worrying chore of manual **appointment booking** to see a consultant will be replaced. When a patient needs to be referred to a consultant they will be asked by their GP where they want the treatment to take place. They will be able to "book" the appointment on the spot and leave the surgery with their appointment time and date.

39. Critical aspects of service delivery will be transformed by the use of IT to put the patient at the heart of the system. Health care is the ultimate personalised service – the government wants to ensure that front-line healthcare workers have the right information in the right place at the right time to deliver basic things easily and free up their time for more value-added tasks.

40. These examples – health and criminal justice - are at the heart of public service delivery. The information systems being put in place will, by-and-large, function behind the scenes as enablers for successful public service delivery.

A strategic approach

41. The Cabinet Office e-Government Unit is working with the newly-created Council of Government Chief Information Officers to set out a vision of public service delivery enabled and delivered through technology and a strategy to achieve that vision. This work is intended for publication in the Autumn; it will be driven by how to modernise services to citizens and to business in such a way as to make a difference to their daily lives not by technology itself.

42. As part of that strategy for modern services for modern citizens, the Cabinet Office and CIO council will have to consider how some services will transit to an almost exclusively digital environment. They will have to examine how and when continuance of a traditional delivery mechanism is uneconomic and does not serve the customer well – for instance by denying choices that a digital service can deliver. Some Departments such as the Department for Work and Pensions have already confronted that challenge in the process of phasing out of order books in favour of electronic payment of benefit – something inconceivable ten years ago. The strategy will have to consider how lessons learned from services that have made that transition can inform generic guidance for the digital switch-over of government services. And ensure that switch-over will only happen as the conditions become right for each service; no-one will be denied access to services because they are delivered electronically.

ACTION 6: Ofcom sets out regulatory strategy.

43. Ofcom has a duty to ensure that a wide range of electronic communications services – including high speed data services – is available throughout the UK. Ofcom has indicated that by the end of 2007/8, its "*aim is to have encouraged the development of an environment in which there is much more competition and innovation in broadband networks and services*".

44. We will ask Ofcom to take account of the prospects for home broadband take up, with a particular focus on uptake amongst the more disadvantaged. We will also ask Ofcom to monitor take up across social groupings and age bands to give a clear picture of the development of the market and the prospects for widening access to broadband technologies.

Tackling social exclusion & bridging the digital divide

ACTION 7: Improve accessibility to technology for the digitally excluded and ease of use for the disabled.

Building on UK online Centres

45. Because the barrier for many people getting online is to do with knowledge and confidence, government should focus its investment on *communal* Internet access points, through schools and online centres, with a focus on reaching hard-to-reach groups and providing enhanced support at such locations. This would build on the strong foundation created by UK Online Centres.

46. It is important that those that cannot afford it or otherwise determine not to have broadband access at home can use the Internet through online centres or other means. For some, *communal* access may be a superior option: allowing support for both computer use and content; avoiding the user having to set up and maintain a computer; providing childcare facilities; in some cases offering a less chaotic environment; and provision of language services. Ideally, the benefits of communal access should be enhanced by home access and we are active in promoting the latter[22]. But as universal home access is still to be achieved and may not prove to be possible, we will ensure that everyone is at least within easy reach of a computer and the internet.

47. Evaluation evidence[23] has demonstrated that the UK online centres have been largely successful in meeting the ICT needs of learners from the target groups within areas of deprivation. Some key findings from the evaluation were: 74% of users were digitally excluded; almost all users said that their confidence had improved since coming to a centre; 84% said they had learned new skills that they would not have otherwise; 50% of users who had vested for six months went on to do learning that earned them a certificate. In

---

[22] See Hall Aitken, 2002 "Evaluation of CMF funded UK online centres"
[23] Hall Aitken; Environmental Resources Management

addition a recent research conducted by SQW/ Mori for DfES showed that centres want to take a more active role in supporting online government service take-up and that if they did 34% of citizens say they would access, or learn to access these services at a centre.

48. Although online centres have been successful in attracting those who need training and support, more could be done to reach out to the most socially excluded. Lessons should be learnt from the most successful online centres who devote a lot of energy to outreach work and marketing and which combine basic skills courses with IT training.

49. ICT training is often seen as a major motivator for people to develop literacy, numeracy and language skills and is an increasingly popular way to acquire these and other skills. Similarly evidence suggests that basic skills training facilitates the acquisition of ICT skills. Lessons should be learnt from centres which have close relationships with basic skills providers and greater emphasis should now be placed on building the capacity of centre staff to provide support and guidance on how to improve their skills (see para x).

50. We will ensure that every adult who enrols on a basic skills course is given an email account. A problem for adult learners is the interruption of study due to life circumstances. There is evidence that interrupted study is a principal cause of drop-out for adult learners – once lost to a course, they are often lost to the system. With online contact they could be offered pro-active personalised support to persist with learning, at their convenience, within the local community of providers. An email account for every adult would give them access to information, advice, guidance and e-learning resources to continue their studies and also provide one way of encouraging them to learn ICT skills alongside basic skills.

51. From April 2003, Ufi/**learndirect** took on the management and development of UK online centres. The initial injection of funds from the Capital Modernisation Fund and Big Lottery funds have now come to an end and Ufi are working with centres to preserve the UK online centre network and

improve their longer term sustainability so they can better support the Government's agenda.

52. In particular, **Ufi will build the capacity of centre staff** through: an expanded centre staff training programme to identify and refer learners through improved partnership links; build and diversify the 'First Time Online' portfolio of Internet tasters and skills checks to engage and progress more citizens into learning; develop a UK online centre membership structure and improve quality standards to manage and incentivise the network and increase confidence in centres by citizens and referral networks - including Government Departments; establish the reputation of centres as a key intermediary and provider of online Government services with Ufi acting as a broker and facilitator.

53. With an existing network UK online and **learndirect** centres there is a ready-made infrastructure to reach out to citizens and engage them to get online. UK online centres are an important national resource and we should look to build on their success and increase their usage to support the wider government agenda and therefore ensure their longer term sustainability.

54. We will therefore be working closely with UFI and DCMS[24] to explore the funding opportunities that are available to promote their continued good service. DfES will lead on this component.

<u>**Reform the Home Computing Initiative**</u>

55. In a bid to boost the penetration of computers into the home, the then Office of the e-Envoy, with the DTI and the Department for Education and Skills prepared guidelines for companies who wished to offer home computing initiatives to their staff (www.ukhomecomputing.co.uk). These initiatives allow an individual through their employer to have the use of a personal computer up to the value of £2500 per annum as a tax free benefit. However, **the scheme should be reformed further to benefit those most in need of Government help in accessing ICT.** HMT will review the impact and cost of

---

[24] Most centres are funded by UFI and some by the National Lottery

the Home Computer Initiative to ensure that it is targeted most effectively at those with the lowest take up.

56. Most initiatives run by employers are run in conjunction with salary sacrifice. This has had an unforeseen impact, in that those on minimum wage cannot enter such an arrangement. **The Government is committed to exploring further how this might be resolved and will commission the Low Pay Commission to consider the problem as soon as possible.**

57. Another barrier to some companies – particularly SMEs - implementing the scheme is the requirement for the Office of Fair Trading to formally approve implementation of the HCI. An amendment to the Consumer Credit Bill which would remove the need for OFT to check every scheme received its third reading earlier in March 2005. There needs to be consultation on new guidance, and under the current timetable the new regime will apply from October. **The Government will ensure that this barrier to implementation of the scheme is removed.**

Improve access for people with disabilities

58. ICT and the internet in particular have real potential to improve the quality of life of people with disabilities. However, many websites present barriers to accessibility for man y people with disabilities. The challenge is how we utilise new technologies in a way that generates benefits not barriers.

59. The Disability Discrimination Act requires people providing services to take reasonable steps to ensure those services are accessible to disabled people. This includes services or information provided through a website. Despite this legislation, an investigation by the Disability Rights Commission found that 81% of sites failed to satisfy basic accessibility criteria. Although in some areas the public sector accessibility is ahead of the private sector, both fall well short of true accessibility.

60. The Government has taken steps to promote accessibility to the Internet. For example, our e-strategy for the education and skills sectors includes a

commitment to the 'MyGuide' project to improve the accessibility of all government websites for people with disabilities, and people reluctant to use the Internet, by developing a radically simple interface.

New Measures

61. But more could be done. Government will:
   - ❖ Give a clear commitment to ensuring that all government **websites and online services** present no barriers to use for those with disabilities.
   - ❖ Facilitate the development of **best practice guidance** for accessible website development and an accreditation process
   - ❖ **Raise awareness** both in private and public sectors about these barriers. The UK will also take a lead on promoting action and raising awareness on this issue within the EU when it assumes Presidency this year[25].

ACTION 8: Review the digital divide in 2008.

62. The measures outlined in this document will make substantial inroads into achieving our aspiration of a more inclusive and efficient digital nation. We also expect the market to drive take-up and use, through the creation of new and innovative services, falling prices and awareness-raising. So the Government will **review the position in 2008** in order to explore whether further action is necessary to close any residual digital divide.

---

[25] An event on e-accessibility is already planned for October in London and this will focus on an EC communication of e-accessibility that is expected to be published in early May 2005.

Next Steps: Implementing the Strategy

63. The issues raised above are truly cross-departmental and they constitute a whole programme of action rather than individual policy initiatives. Taken as a whole they go beyond the scope of any one department and even beyond government into the private sector. It is therefore important to establish a process or structure that drives forward the implementation of the digital strategy and reports on progress. Under Ministerial ownership, OGC and eGU will support DTI in determining the right structure to drive forward a programme to implement the strategy. This will include appropriate representation from government departments, No10, and other key stakeholders eg the Broadband Stakeholder Group.

64. Going forward the UK is extremely well positioned for the future. We have a world-leading national infrastructure and a world beating ICT sector. However if the UK is to thrive in the future, to succeed in competitive markets and to enjoy enhanced services, all of us need to be confident and comfortable, living and working in a digital world. We need to create a country at ease in the digital world. Where all have the confidence to access the new and innovative services that are emerging, whether delivered by computer, mobile phone, digital television or any other device, and where we can do so in a safe and secure online. We will not only tackle the digital divide but also use ICT to minimise social exclusion. By harnessing the transformative power of ICT and making the rewards available to all, we aim to make the UK the world leader in digital excellence.

ANNEX 1

The Digital Challenge – A digital vision for the digital age

To create an award that:

i)   encourages innovation test bed for new ideas;

ii)   builds on existing achievements

iii)   enlarge government networking and collaboration within a healthy spirit of competition

The Challenge

To develop a truly innovative digital vision for an area/region/city, that identifies how they could combine, expand and utilise digital technology to combat exclusion and deprivation and demonstrate the benefits to local industry and all their citizens.

Process and scope

The proposal specifications would not be over prescriptive with scope for innovation and the degree of focus on for example, young people or older people. However, we would anticipate that the bids should at minimum:

➢ Be developed 'bottom up' building on the local knowledge of existing partnerships such as Local Strategic partnerships and the existing experience local authorities have

➢ That improving access to the Internet and overcoming the barriers to Internet access (including the need to incentivise access to online public services) are central and that thorough evaluation of the initiative will be integral to the proposal and will lead to a detailed strategy for wider delivery of e services. Similarly, investment would favour communal access

➢ That the approach does not just rely on web based services alone but builds on multi-channel e-enabled services (including mobiles

and digital TV) which have higher penetration among some excluded groups

> The bid is <u>realistic, credible, efficient with a high probability of delivery success</u>. A winning bid would build upon the existing investment in service modernisation and aim to make the transition to a fully modernised digital service for as little money as possible**.** Like the City of Culture, the Digital Challenge would award the top prize to a community which demonstrates both great potential to become a digital centre of excellence and evidence that the foundations of this aspiration have already been laid.

> The bid must also show evidence of <u>sustainability </u>of the vision. This is particularly important as the prize will be a one-off sum.

> That the <u>priority focus for the initiative should be on families with children </u>given the clear evidence of educational attainment improvements linked to Internet and PC access.

The Digital Challenge would include the following phases:

Phase One - Planning

1. Establish a joint governmental steering group (JGSG). The Devolved Administrations are also welcome to participate
2. Agree aims and purposes of the challenge
3. Identify regional judges
4. Develop criteria for Awards taking into account any governance and structural issues faced by the Devolved Administrations.

Timescale – Spring 2005

Phase Two – The Call

Summer 2005

Phase Three - Regional Winners

1. ' Silver Badge' for Digital Vision for the best two from all sub-regions (All those who submit could receive 'Bronze Badge')

2. Top two outline approaches from each region to JGSG for recommendation to Ministers on the best twelve – ie. one from each region and Devolved Administrations.
3. Best 11 awarded Digital Vision and 1 'best loser'

Timescale- Autumn 2005

Phase Four – Digi-Challenge Network

1. The top 12 outline approaches are awarded £100k each (ODPM to fund 9 of these for English areas plus £100,000 running costs - £300k to be found from other departments)
2. This funding is to enable the top 'areas/cities/sub-region' to develop a more in depth Digital Challenge Strategy for their area.
3. These to be represented back to the JCGSG

Timescale – Summer 06

Phase Five - National winners

1. JGSG recommend to Ministers the 'winning challenge' December 06
2. Winners awarded with 'Platinum Badge' for Digital Challenge Winners

Timescale – December 06

Phase Six
1. Should further CG funding be available this could be invested in April 07 ie. 07/08 financial Year.

ANNEX 2

This report was prepared by the Prime Minister's Strategy Unit in partnership with the Department for Trade and Industry and guided by the Minster for e-Commerce, Mike O'Brien.

The report was written with the help of:

Wendy Piatt	**Mark Swarbrick**
Prime Minister's Strategy Unit	DTI
Matthew Taylor	**Pip Spence**
No 10 Policy Directorate	DTI
William Perrin	**Gareth Davies**
e-Government Unit	Prime Minister's Strategy Unit
Clive Bates	**David Knott**
Prime Minister's Strategy Unit	Prime Minister's Strategy Unit
Ian Moss	**Rohit Singh**
HM Treasury	Prime Minister's Strategy Unit
Ramil Burden	
No 10 Policy Directorate	
Richard Turl	
Social Exclusion Unit	
Bert Provan	
Social Exclusion Unit	
Diana Laurillard	
Department for Education & Skills	