UKonline

annual report 2002

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2002 UK online Annual Report

Transforming Businesses • Transforming Government • Transforming Opportunity

This is our third annual report on the state of the UK online nation. We remain committed to our goal of getting the UK online – to ensure that the country, its citizens, and its businesses derive the maximum benefit from Information and Communication Technology (ICT). This commitment is made not as an end in itself but rather as a means to the more fundamental goals of the Government: better public services, a stronger economy, increased productivity and opportunity for all.

We have already seen the transforming effect ICT can have: internet e-commerce sales were over £18bn this year[1]. People are spending longer online and are undertaking increasingly sophisticated activities. Around 10 million people now use e-banking and households in the UK now spend an average of 20 days a year online.

Over the past year the Government has continued to pursue aggressive targets, towards which real progress has been made. Over half of Government services are online; over a million Britons now subscribe to broadband; more than 6,000 UK online centres have been opened nation-wide; and independent research shows that the UK is considered the second best environment in the world for e-commerce.

These highly encouraging examples illustrate a broader point. In recent years, we have seen ephemeral start-ups falter and dot-com hype diminish. But in their place we are now witnessing a more meaningful change. Our appreciation for the potential of ICT has matured and as such its impact is being magnified. This transformation is the theme of this year's report and the bedrock of our future strategy.

Going forward we will continue to offer support and guidance to businesses as they get online and in their transformation from e-commerce to e-business. We will work to transform Government by placing the citizen at the heart of every public service and improving the efficiency of Government itself. And we will keep working to transform opportunity for all citizens by helping them get online.

This report is structured around the three central pillars of our strategy: Business; Government; and People. It describes our achievements over the last year, our commitments for the year to come, and our future strategy for UK online.

Andrew Pinder
e-Envoy

Patricia Hewitt
e-Minister

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delivering UK online

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1 Executive Summary

In September 2000 the Government launched UK online – a programme of work to ensure the UK's place as a leader in today's global economy. Over the last three years our strategy has been underpinned and motivated by challenging targets in the key areas of Government, Business and People. This report is structured around these three themes.

As in previous years, we describe progress against our objectives and set out plans for the future. We highlight achievements across the whole e-agenda and explain some of the major challenges and opportunities we face, in the context of both domestic and international performance. The report also marks a change from previous years, in two ways. In the first instance, it represents an evolution in our policy for how e-Government will contribute towards the transformation of public service delivery and the efficiency of Government itself. This is now an integral part of a wider reform of public services being carried out throughout Government.

Secondly, this report represents an important milestone in our drive to make the UK the best environment in the world for e-commerce. Over the last year we commissioned an independent International Benchmarking Study to determine the strength of the UK's e-economy[2]. The Study identified key factors, ranging from innovation capability to ICT educational infrastructure, that affect the ability of governments, businesses and citizens alike to take advantage of the opportunities that the internet offers. Over 30 performance indicators representing these factors were then developed into an overall environment index. The results show that the UK has the second best environment for e-commerce in the world – behind only the US. This represents significant progress over the last four years and an excellent foundation for future growth.

The comprehensive UK online strategy set out in this report forms a coherent policy and delivery plan, driven by the Government's commitment to the reform of public services. We will report against these commitments regularly throughout the coming year.

Transforming Businesses

The UK online strategy has always recognised the importance of e-commerce in creating a competitive economy. It has provided a coherent and co-ordinated approach to the wide range of policy issues, which impact the development and growth of e-commerce in the UK.

The last year has seen a steady increase in both the amount and sophistication of online activity from businesses: 91% of employees in the UK work in businesses connected to the internet; 62% of businesses now have a web presence and 51% of businesses are buying electronically. These are encouraging signs that UK businesses are recognising and capitalising on the benefits that exploitation of ICT can bring. But we need to continue our drive to develop the UK as a world leader for e-business.

e-Business has never been more relevant. Productivity improvements are the key to sustained increases in living standards and ICT has a significant role in raising our national productivity and encouraging economic growth. It breaks down geographical, financial and social barriers to market entry. It allows companies to compete in a global, increasingly sophisticated market. It opens up completely new or more effective ways of working, to enable businesses to cut costs or increase sales.

British businesses need to recognise and exploit ICT if they want to compete, grow, or simply stay in business. They need to communicate better with customers, suppliers and employees. They need to stay competitive at home and abroad. ICT can – and is – allowing companies to do all this better, quicker, smarter, cheaper.

The Business section of this report sets out how far we have come – and what more we plan to do – in our ongoing drive to develop the UK as a world-leading environment for e-business. Our strategy focuses on four key themes.

First, providing support for businesses in their transition from e-commerce to e-business through the work of UK online for business. Second, continuing to work with the industry to promote the extensiveness and competitiveness of the UK's broadband market. Government will be spending over £1bn over three years on broadband connectivity for public services and therefore broadband's relevance extends to all three sections of this report. Third, modernising the regulatory, legal and fiscal framework in the UK to meet the needs of the ICT economy. Finally, implementing a strategy to increase productivity by making the UK the number one country for the supply of ICT skills.

The Business section of this report sets out our strategy for ensuring that e-business can play its part in achieving sustained improvements in the UK's productivity and competitiveness beyond 2002.

Transforming Government

The Government is committed to a fundamental reform of public services. People and businesses must be able to deal with Government when they want, where they want, how they want – confident that they will receive high quality services they can trust. e-Government is a powerful catalyst for achieving this transformation. The outcome of the Spending Review 2002 recognises this, by committing just under £6bn over three years to developing e-services. This will allow: patients to benefit from applications such as electronic patient records and online appointment booking; victims, witnesses and jurors to use citizen-facing portals in the criminal justice system; local government e-services to be supported; and voters' participation in the democractic process to be enhanced through e-voting.

Our goal is to make all Government services available electronically by 2005, with key services achieving high levels of use. We have already made progress: 54% of services are now available electronically. The Government Gateway, the key IT core which enables secure transactions with citizens and businesses, is a world leader and the UK online portal provides a single route into Government. The UK is also a leader among the benchmarked countries in terms of developing e-democracy – using ICT to help people and organisations participate in the democratic process in more flexible ways.

To maximise the impact of e-Government on the wider reform of public services, we need to ensure that the most popular services are made available as soon as possible. These include services in the following areas: services to businesses; benefits and personal taxation; transport information and booking; education; health; citizen interactions with the justice system; land and property; agriculture and e-democracy. We will therefore give greater priority to enabling and maximising take up of these key services.

We must also ensure that e-services offer a real advantage for citizens and business over more traditional channels of service delivery. Successful e-services are already enjoying high levels of take-up. For example, the National Health Service receives approximately half a million visits through NHS Direct Online[3] each month. Our strategy focuses on enhancing the delivery of key public services at a national and local level to meet people's needs, by providing access to services in ways people want, overcoming barriers of trust and confidence to using these services, and motivating people to take up the services on offer.

In addition to offering customers easily accessible services designed and built around their needs, ICT can also increase productivity within the public service itself. Delivery organisations can connect the whole delivery process, taking the opportunity to break down existing internal barriers and eliminate inefficiencies. This in turn creates the potential to free resources for other priorities. Our strategy is designed to ensure that the opportunity for Government to transform itself in this way is realised.

We will focus on faciliating a mixed economy for delivery of public services, where customers can engage with intermediaries from the public, private and voluntary sectors to use public services in ways they want. Opening the market for Government services could accelerate the development of more innovative, customer-focused services. Common standards for delivery and putting key infrastructure in place will also underpin the change to more joined-up, efficient, services.

International benchmarking shows that the UK has one of the most comprehensive e-Government programmes. The Government section of this report sets out our vision and strategy for transforming Government by delivering efficient, customer-focused public services.

Transforming Opportunity

It is essential that everyone who wants to use e-Government services, engage in e-business, or get involved in any other type of online activity, should have access to the technologies through which they are delivered.

Our goal is to ensure that everyone who wants it has access to the internet by 2005. We are on track for achieving this target. Currently 45% UK households are online and 47% of UK adults are regular internet users. But take-up among the most disadvantaged groups in society – those on low incomes, the elderly and people with disabilities – is lower.

These groups are traditionally heavy users of public services and potentially have most to gain from convenient, customer-focused channels of electronic delivery. Services like benefit applications, access to health records and GP appointment bookings will all be available online. But without access to the internet or the skills to use it confidently, these groups may face further social exclusion. We need to transform digital opportunities available to all UK citizens.

The People section of this report sets out our progress against our target for access and our strategy for encouraging take-up among "digitally divided" groups. There are four themes to this strategy, which together address key barriers to take-up and use of the internet.

First, addressing motivation by raising awareness of the benefits of online services, where people can access them and how they can get support. Second, promoting affordable access to the internet by investing in a network of public internet access points for those who cannot afford or do not have home internet connections – and promoting access through a variety of different channels. Third, improving ICT skills by embedding them in schools, further and higher education and lifelong learning opportunities. Finally, building trust in the internet by promoting consumer confidence and developing strategies to enable people to use the internet safely.

The steady growth in home internet access and the successful creation of a network of over 6,000 UK online centres, means we are well on the way to achieving internet access for all.

2

Business

Productivity improvements are the key to sustained increases in living standards and therefore a central aim of Government

e-business has never been more relevant

Summary

Our goal is to develop the UK as a world leader for electronic business

The Government will:

- transform businesses by:
  – providing support to companies in their transition from e-commerce to e-business through the work of UK online for business.
- develop broadband by:
  – continuing to work with industry to promote the extensiveness and competitiveness of the UK's broadband market.
- support the framework by:
  – modernising the regulatory, legal and fiscal framework in the UK to meet the needs of the e-economy.
- increase productivity through skills by:
  – implementing a strategy to boost productivity by making the UK the number one country for the supply of ICT skills.

For the UK to succeed as a nation achieving prosperity for all, it is essential that businesses improve their productivity. Historically, the productivity performance of the UK economy has been relatively weak; macroeconomic instability and microeconomic failures have inhibited productivity and growth[4]. This is why the Government is committed to maintaining economic stability. Productivity improvements are the key to sustained increases in living standards and therefore a central aim of Government.

Many factors contribute to productivity improvements, including innovation, domestic competition, capital investment, better management and, of course, ICT. ICT continues to play an increasingly significant role in improving businesses' organisational efficiency and their ability to compete. It breaks down geographical, financial and social barriers to market entry. It allows companies to compete in a global, increasingly sophisticated and well-educated market, where customers demand innovative and higher quality products and services. It opens up more effective ways of work or even completely new ways to working, to enable companies to cut costs or increase sales. That is why we believe e-business[5] has never been more relevant.

In March 2002 the office of the e-Envoy (OeE) and the Department of Trade and Industry (DTI) commissioned an independent study that aimed to understand how the UK's e-economy compares internationally. The results are extremely encouraging – the UK was found to have the second best environment for e-commerce in the world[6], behind only the US.

Going forward, our strategy for the next year focuses on four key themes. First, providing ongoing support for business in their transition from e-commerce to e-business through the work of UK online for business. This support will continue to be developed to assist businesses at whatever stage they are in adopting and using technology.

Second, continuing to work with the industry to promote the extensiveness and competitiveness of the UK's broadband market. Broadband services can change the ways businesses operate, enabling new markets to be reached with potentially beneficial effects on productivity and competitiveness. Over the next year we will pilot a series of innovative broadband content pilots and launch the UK Broadband Task Force, consisting of a team of regional broadband and procurement experts.

Third, modernising the regulatory, legal and fiscal framework in the UK to meet the needs of the information, communications and technology economy. The UK has a light-touch regulatory framework conducive to e-commerce that compares well internationally. Over the next year we will continue our work to remove legal barriers to doing business online. In particular we will revise the Consumer Credit Act, work to level the international playing field for VAT treatment, and continue to create a supportive environment for intellectual property rights.

Finally, implementing a strategy to increase productivity by making the UK the number one country for the supply of ICT skills. Improvement of skills is a crucial part of our broader drive to help businesses improve their productivity. Individuals and businesses need to develop the skills to exploit the new challenges arising from the e-economy. Over the next year we will work to improve young people's perception of ICT industries and the nature of demand for such skills.

Where does the UK stand?

The adoption of ICT by businesses is an ongoing journey. It starts with basic use of the internet for communicating via email; progresses towards the creation of websites and the sharing of rich content with the outside world; develops into the buying and selling of goods online; and, towards the top end of the progression, matures into the transformation of organisations and the construction of entirely new business models. This part of the section assesses the progress of UK businesses along this journey.

Facts and Figures – 2002

- 73% of businesses online
- 18% of businesses with broadband
- 62% of businesses have websites
- 30% of businesses selling online
- 52% of businesses buying online
- £18.4bn of e-commerce transactions

The last year has seen a steady increase in both the amount and sophistication of online activity from businesses. There are more companies online this year than last with particularly strong growth among smaller companies – the gap in connectivity between small and large companies is narrowing. There has also been growth in the number of companies connecting to the internet using high-speed broadband technologies. The number of businesses trading online has increased. And even more encouragingly businesses are now beginning to use the internet to transform the way they operate – from e-commerce to e-business.

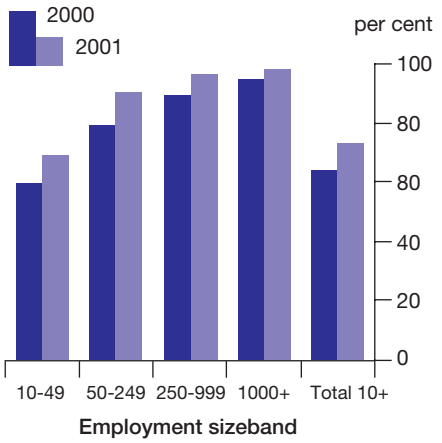
Internet Access

Internet connectivity improved across all business size bands last year according to the 2001 ONS e-commerce survey[7]. Around 73% of UK businesses, with 10 or more employees, are now connected to the internet – an overall increase of 16% year on year.

Larger businesses are still more likely to be connected than smaller businesses although the gap is narrowing as shown in Figure 1. 17% of businesses not using the internet in 2001 plan to go online in 2002 and 89% of businesses already claim to be using PCs/workstations. These businesses are therefore very close to getting online.

What is more, there are now so many large businesses using the internet that we are reaching saturation. 91%[8] of UK employees work in businesses that are connected to the internet[9].

Figure 1: Business internet access 00–01, Source: ONS

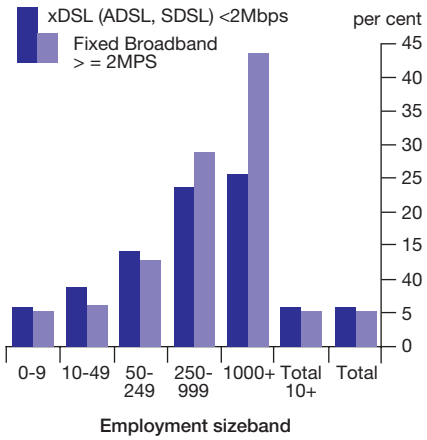


Broadband Connectivity

Of those companies that are connected to the internet there has been an increase in the number of companies using broadband services. According to the ONS, a greater percentage of this year's online population growth can be attributed to new broadband connections. Dial-up technology's share of connections has remained stable over the period with 46% of businesses now using this form of access[10]. ISDN access has also remained relatively stable over the period.

Currently, 18% of businesses with 10+ employees have a broadband connection – compared to 8% at the end of 2000. Larger businesses are more likely to use broadband than smaller businesses as shown in Figure 2. 51% of UK employees work for companies that are connected to the internet using broadband[11].

Figure 2: Business connectivity by business size

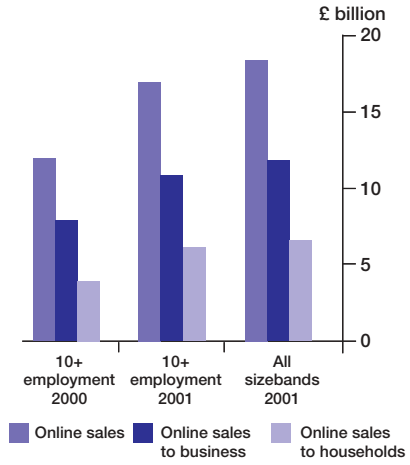


Electronic Commerce

The percentage of companies with websites has grown by 15 percentage points – 62% of UK businesses now have a website[12]. Similarly, the number of businesses trading across the internet and across other computer networks has increased over the past year; 30% of businesses are now selling electronically, up from 16% in 2000 and 51% of businesses are buying electronically – an increase of 18 percentage points year on year[13].

During the telecommunications boom there was a significant rush by companies to get online and start trading. Since then there has naturally been consolidation and maturity in the industry. Some companies made the decision to concentrate more on e-enabling other business processes and not to focus exclusively on selling goods or services electronically. As a result there has been a decline in the number of micro businesses trading online[14].

Figure 3: Online sales by UK businesses in the non-financial sectors



There has been a 42% increase in online sales up from £12bn in 2000 to £17bn in 2001 – excluding the finance sector[15]. B2C sales in 2001 amounted to £6.1bn an increase of 53% over a year earlier. These increases reflect the latest ONS Omnibus Survey of UK Adults results, which show that more people than ever are buying online. Currently 46% of internet users are buying two years ago. B2B sales remain significantly higher that B2C amounting to £10.9bn in 2001, a year on year growth of 36%.

Electronic Business

In addition to trading online, businesses are also increasingly using the internet to transform the way they operate. Of firms using electronic trading, 31% are linking orders directly to invoicing and payment systems, and 23% integrating directly with suppliers' business systems, and 20% with logistics. Survey results show that process integration is more likely to be undertaken by larger companies.

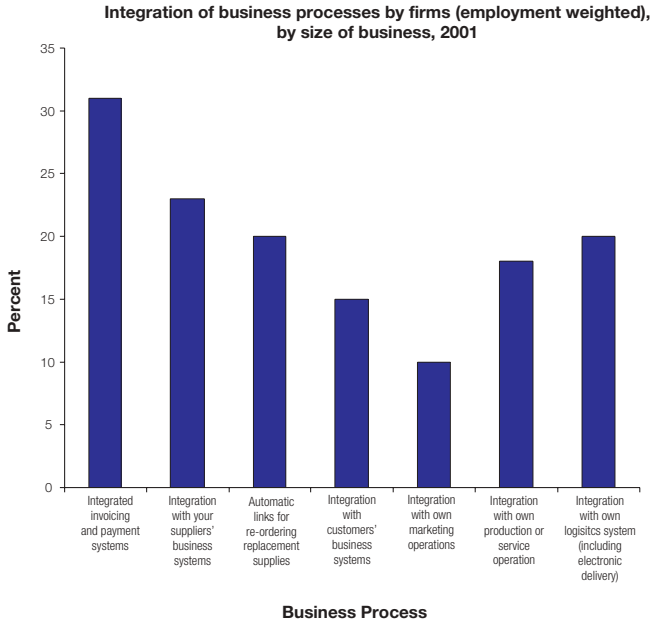
International Comparison

The 2002 International Benchmarking Study established a broad range of indicators to determine the strength of the UK's e-economy. The Study identified several factors that affect the ability of governments, businesses, and citizens alike to take advantage of the opportunities that the internet offers.

The UK performs well against the e-business indicators within the broader e-economy benchmarking framework[16]. It is close behind Sweden and US, which are the leading nations and on a par with Germany and Canada. e-Business performance among these countries is broadly

Businesses are using the internet to transform the way they operate

Figure 4: e-Commerce in the UK 2001



The UK performs strongly across the broad range of indicators

comparable and it is difficult to identify any major differences – the UK performs strongly across the broad range of indicators.

The readiness of UK business to take advantage of technology and the internet is a strength. Business PC penetration is high due to the progress made throughout the 1980s as ICT investment grew from being comfortably the lowest among the benchmark group, to being among the highest.

UK businesses are highly connected to the internet with SME connectivity – particularly high relative to other countries. UK businesses are also among the most likely to have a website – from only a moderate position in 1997, UK business has built a web presence at a rapid rate compared to other countries. However, despite high levels of connection, the proportion of workers with personal access to the internet is lower than one would expect.

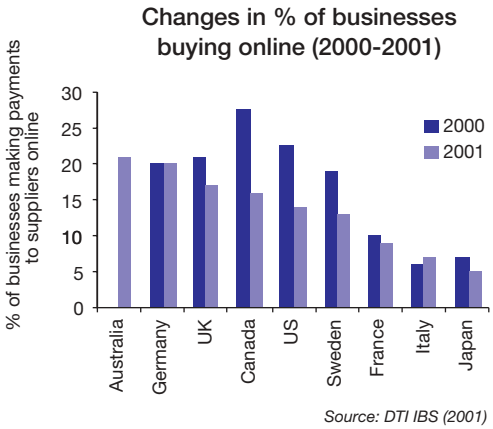
The UK has seen one of the highest rates of growth in the ICT sector

Businesses are mostly connected using dial-up access with fewer connected via high-speed broadband relative to other countries – although broadband access costs have reduced in the UK and the latest statistics show that UK businesses are now exchanging dial-up connections for broadband. The UK performs moderately in terms of businesses trading online, (Figure 5), but there is a declining trend across some business sizes.

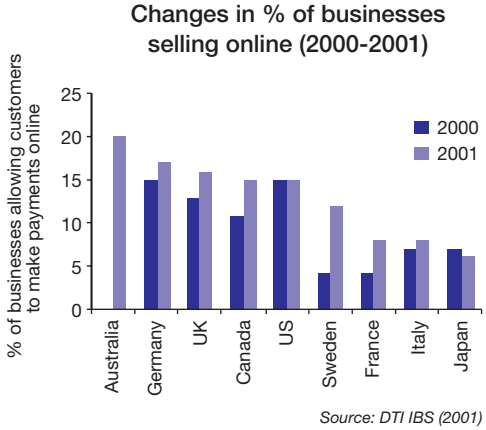
The UK has seen a relatively large impact of businesses adopting the internet. For example, high levels of offline spending have been transferred onto online channels, and many businesses are redesigning processes using the new technologies. Businesses in the UK, Canada and the US have led in the adoption of technologies to transform core operations processes such as logistics and automatic re-ordering.

The UK has seen less of an impact on labour and total factor productivity than in North America and Scandinavia. However, one of the most significant impacts to date for the UK has been the growth of the ICT sector. Despite already having one of the largest ICT sectors (as a % of GDP) among the benchmark group, the UK has seen one of the highest rates of growth. This has also been reflected in terms of job creation.

Figure 5: Businesses buying and selling online



Source: DTI IBS (2001)



Source: DTI IBS (2001)

Government's Strategy

Transform businesses

Introduction

It is becoming clear, through the International Benchmarking Study, and other research conducted by the DTI, that to successfully implement an e-business strategy requires organisations to e-enable and integrate a range of activities and processes within the business. It is equally clear that companies who are delivering an e-enabled business strategy are not following some linear and uniform progression, but have approaches that vary according to their own priorities. Unless that integration and more sophisticated use takes place, then the business benefits from the use of ICT may not be fully realised.

UK online for business impacts

- **100,000** companies have been given assistance by UK online for business advisers over the past 12 months.
- **175,000** companies have been given advice through the website.
- Almost half **(48%)** of UK businesses have heard of UK online for business.
- Over **50** publications (available either in hard copy or via the web) providing independent and jargon-free information aimed at SMEs have now been produced.
- **1.6 million** items, publications and other collateral material, have been disseminated in the past year.
- **98,000** people visited website during media campaigns; **53,000** unique visitors.
- **40** Sector Impact Assessments have now been conducted.
- **1,683** companies applied for the fourth annual e-Commerce Awards this year.

Background

For the past 12 months, the UK online for business[17] programme has retained a focus on helping companies trade online, while beginning to develop material which addresses the more sophisticated and deeper use of ICT within the business. The delivery of the programme is built around raising awareness of the business case for adopting ICT and providing independent and impartial advice and content in order to help companies develop their e-business strategies.

During that period, DTI advisers, based in the Business Link Network, have given ICT advice and assistance to over 100,000 companies. In addition, UK online for business Regional Champions provide a resource for the Small Business Service Directors for the Regions. Their primary responsibility is to help build relationships across their respective regions and increase the numbers of businesses assisted.

Sixteen e-business clubs have also been launched this year. The clubs are a partnership between UK online for business, the British Chambers of Commerce and five private sector organisations – BT, Hewlett-Packard, Lloyds TSB, Cisco and Intel. The clubs are an impartial forum for members to discuss and understand how e-business can revolutionise and improve business processes by cutting costs, reducing administration and increasing efficiency for a more productive economy.

The programme has retained a focus on helping companies trade online, while addressing the more sophisticated and deeper use of ICT

Some 43 publications covering a range of topics, business and technical, all providing independent and jargon-free information aimed at SMEs have now been published and are available either in hard copy or via the website. As well as this generic content, over 40 Sector Impact Assessments have also now been conducted, providing information about the take up and use of ICT within particular sectors.

As we approach 2003, we have been assessing the current direction of the programme and considering how best to make it relevant to current business needs.

Case Study

Delap and Waller

Delap and Waller is a firm of mechanical/electrical consulting engineers. The company has 54 employees and is split into a number of regional offices in Belfast, London, Dublin and Cork. Until 1994 technology was peripheral to the business. However, the company recognised that through technology, it could streamline its business processes and provide a speedier and more efficient service for clients.

The company installed a Wide Area Network (WAN) to link its computer and telecom systems in different offices to improve staff communication and allow information to be shared. In order to communicate better with clients, Delap installed desktop and videoconferencing. This investment in technology cost about £150,000.

Internally, the use of email, digital telephone systems, and desktop and videoconferencing systems has streamlined operations and allows all the sites to work together, sharing information and resources. Delap and Waller forms virtual teams from across its offices and wider within its sector when bidding for new work. Externally, the company has improved the way it communicates with customers. It uses conferencing technologies on a daily basis to discuss CAD drawings with clients. It can send drawings to clients instantaneously by file transfer.

Integrating technology throughout the business was responsible in part for a £600,000 (almost 15%) increase in turnover despite the strong pound. The company anticipates that the figure will rise again by £500,000 in 1999/2000.

Delap and Waller intends to continue to upgrade its IT and telecommunications system by installing teleworking facilities, enabling employees to dial into the office remotely. It also plans to install more videoconferencing systems into its offices.

Managing Director of Delap and Waller, advises other companies thinking about incorporating technology into their business, “Don’t try to do everything at once – stage the introduction of e-commerce. This will give time for staff to accept and learn the technology and also for your business to adapt to using it. I’d also recommend other companies to seek independent advice and support, in particular, at the initial stages.”

Companies are choosing to use ICT to underpin changes in the way they engage with customers and suppliers

Strategy

This assessment is now leading to a change in the strategic direction of the UK online for business programme. These changes have been influenced by a number of factors: findings from International Benchmarking Studies and other research; changes in the marketplace; the DTI’s agenda on productivity and competitiveness, support for the take up of broadband and the need to redefine goals as the time frame for current targets expires.

Although there has been considerable progress in the take up and use of ICT by UK businesses, it is clear that for a large number the preferred use is not to develop an online trading capacity. Instead companies are choosing to use ICT to underpin changes in the way they engage with customers and suppliers, and manage internal processes, to reduce costs. It is also clear that the initial rush to get online is now over, and that senior management is assessing the value of investments to date and future investment plans. What is beginning to emerge is that to realise the full benefit of e-enabling the business, the

use of ICT has to be integrated throughout the organisation and within the supply chain.

This deeper and more integrated use of ICT within the business offers a more sustained return on investment, but poses new challenges for business. A business which seeks to effectively integrate ICT throughout the organisation and its trading community, to become an e-business, needs not only to identify their technological needs, but also to ensure that their strategy addresses their business processes, people, organisation and culture.

e-Business cannot be looked at as just another technological exercise. To be successful, businesses have to develop new ways of working and become much more open in dealing with customers and suppliers. Changes of this nature can only be implemented if people understand how the changes will affect them and they are equipped with the necessary skills and tools to do the job. There are likely to be organisational and cultural changes required as well, if the necessary flexibility and openness required is to be achieved. Such changes have to be driven from the top of the organisation – strong leadership and the ability to manage change are vital – and have to be part of a rational strategy, which is clear to all in the organisation.

Becoming an e-business is not just a matter of finding the right software or technological solution. It is about developing the business around a framework of people, process and technology, with each being an integral element of success.

UK online for business has already begun to broaden its activities to address these more complex issues. Working with private sector partners, colleagues in the DTI, other Government departments and the wider public sector, the programme will continue to build awareness of the business benefits to be achieved through effective use of ICT, and provide advice and tools to assist implementation. New content is already available, e.g. a Managing Directors' Framework Document for doing e-business, as well as a suite of content around supply chain issues. We will also be working to ensure that business understands the ways in which existing and emerging technology, such as broadband and wireless, can underpin their competitiveness and productivity. Increasingly we will be looking to deliver this material through our website, www.ukonlineforbusiness.gov.uk. There is already a growing section of material on broadband, including case studies.

The programme will continue to support late adopters with existing material, which will be updated, and the provision of advice through advisers located in the Business Link outlets and their counterparts in the Devolved Administrations. However, we expect to achieve a greater degree of focus on those companies who have already made an investment in ICT, but are now considering how best to exploit this. We also wish to engage with those companies who have started to develop their use of ICT, but for whatever reason, have failed to maintain ICT investment within their business.

e-business cannot be looked at as just another technological exercise

DTI will:

- provide support to companies in their ongoing adoption of ICT through the work of UK online for business, by:
  - sustaining its marketing and communications strategy, with a focus on the business case for the integrated use of ICT, underpinned by the generation of case studies and signposting to sources of advice and support, particularly that delivered by the Business Link outlets and their counterparts in the Devolved Administrations;
  - working with the Broadband Stakeholder Group (BSG) and others to raise awareness about the business benefits to be gained from using broadband, wireless and mobile as e-enabling technologies;
  - building on the sector–specific activities which have been developed in the last 12 months, working with departmental colleagues and relevant sector bodies to stimulate further activity around more sophisticated use of ICT and sharing best practice;
  - continuing to develop and signpost relevant content, which identifies the key issues business face in e-enabling their business. The UK online for business website will be a key delivery channel;
  - working with partners and others, the programme will develop relations with established business networks as a means of engaging with business and promote an understanding and take up of the e-business agenda;
  - developing the role of the UK online for business Regional Champions to facilitate local and regional activity in support of the programme's objectives;
  - promoting and encouraging development of the Technology Means Business standard as a means of ensuring an acceptable quality of advice is available to SMEs.

Broadband's relevance extends to all three sections of this report

Develop Broadband

Introduction

If the UK is to succeed as a world-class place for e-business, public service delivery and online participation, it is essential that we develop a world-class communications infrastructure. Broadband – the term used to describe a wide range of technologies that allow high-speed, always-on access to the internet and other electronic services – will play a pivotal role in this, not just for business, but for people and Government as well. Its relevance therefore extends to all three sections of this report.

At its most basic, broadband makes the internet a more satisfying experience: less waiting, more surfing. But it is more than just this. Broadband services – whether delivered over a telephone line, cable wire, satellite or terrestrial radio antenna or to a next-generation mobile phone – have the potential to increase productivity, enhance competitiveness and open new markets.

Background

The broadband market in the UK is currently one of the key foci for the ICT sector and a priority area for policy makers. Government believes that the rapid rollout and adoption of broadband, whether fixed, wireless or mobile, across the UK is important to both its social and economic objectives.

The Government has set a target for: the UK to have the most extensive and competitive broadband market in the G7 by 2005, with significantly increased broadband connections to schools, libraries, further education colleges and universities.

This target is about getting the UK's broadband environment right for businesses and consumers, as well as ensuring that public sector organisations gain optimum benefit. The Government believes that it is important to develop a market that is both extensive and competitive. Extensiveness means extending broadband networks to households throughout the country – including those in rural and remote areas. Competitiveness means providing consumers with value for money, and a wide variety of product choice in the market. The indicators used to assess our progress against this target were set out in the UK online Annual Report 2001.

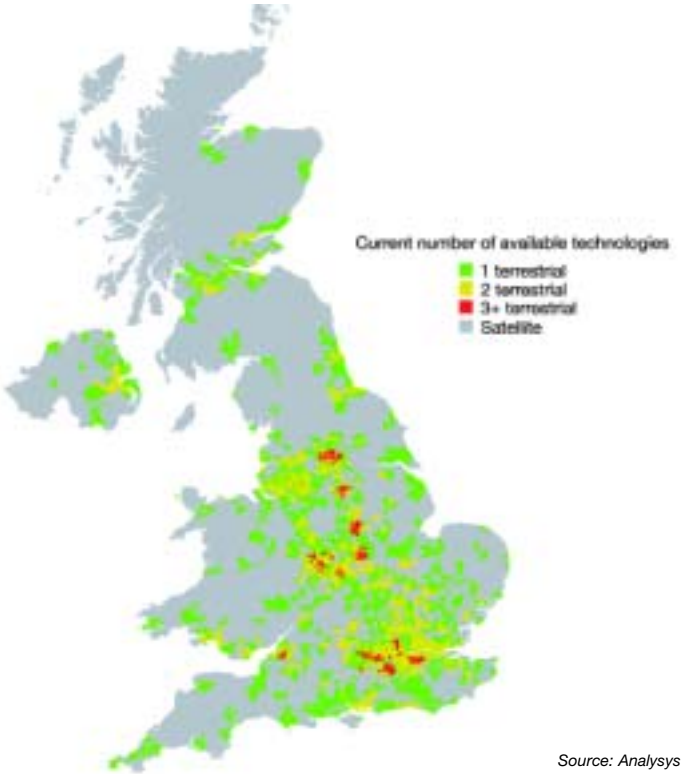
Since setting our target and in formulating our policy, we have worked closely with those at the industry's heart – and in particular the Broadband Stakeholders Group (BSG). The following sections outline the developments, which we have made to put our feet on the right track and the future plans, which will help us to reach this target.

Extensiveness

Currently two thirds of the UK population is covered by a mass-market, terrestrial broadband solution, a figure which is expected to rise significantly by 2005. Cable modem services are available to over 40% of households (around 10 million homes) fixed wireless services to 12% and around 66% of the UK population are connected to an exchange which provides ADSL services.

Before consumers subscribe to broadband they will probably reach the internet through narrowband and in particular flat-rate internet access products, ISDN or interactive digital television (DTV). A growth in this available market is also needed to convince suppliers that take-up will grow to produce a return on investment. Flat-rate internet access continues to grow with 48% of households using these products in May 2002, up from 40% in August 2001.

Figure 6: Broadband Availability Map



Source: Analysys (August 2002)

While the UK remains in fifth place in the G7 for market extensiveness, we expect to make progress in the coming year as new developments in the market and in policy take effect.

Over the past year Tele2 (now Liberty Broadband), the East of England Development Agency and BT announced the introduction of a new demand registration systems, that enable customers to register interest in receiving broadband services. Todmorden in West Yorkshire became the first exchange to reach the trigger level set by BT after 200 consumers expressed interest with their ISPs in receiving ADSL services. Several more have followed, although mostly late to be included in the assessment for this period. Community pressure groups are springing up all over the country to convince suppliers that there is a demand for broadband.

Developments in technology will continue to have a role to play. BT is trialing the use of new, smaller ADSL exchange equipment – 'mini-DSLAMs' – designed to deliver ADSL from small exchanges where it would not otherwise be commercially viable. New fixed wireless access services, as well as two-way and one-way satellite access, offer the potential to reach those parts of the UK outside of the reach of ADSL or cable modems. Over the past year, the Radiocommunications Agency has worked to develop a number of frequency bands to extend the possibilities for delivering broadband services by wireless. It also introduced flexible licensing arrangements for satellite earth stations that may be used for broadband services.

Leased lines offering symmetric broadband to larger businesses are available throughout the country. Oftel's work on partial private circuits (see below), which are the circuits that provide the final links to business premises, should help further stimulate competition and bring about lower prices for leased lines.

3G mobile networks are currently being rolled out across the UK and it is expected that the service will cover an area including 50% of the population by the end of 2003.

As part of Government's ongoing strategy to extend the availability of broadband, the DTI created a £30m fund for the Regional Development Agencies (RDAs) in England and the Devolved Administrations to fund pilot projects and innovative schemes to help develop broadband networks. Initial projects were announced in March 2002 with others following throughout the year. Progress with these projects is in the process of being monitored and evaluated by the DTI, with results to be fed into the work to be carried out by the UK Broadband Taskforce (see the section on stimulating the roll-out and take-up of broadband in the regions).

Case Studies

Regional Broadband Initiatives

Alston Cybermoor
In the rural community of Alston, eastern edge of Cumbria (population 2,240) the Northwest Development Agency is contributing funding in excess of £100,000 to the Alston CyberMoor project which aims to provide broadband connections to the majority of homes and businesses within the Parish. This project will test the viability of using licence-exempt spectrum. This builds on an existing Wired-up Communities project. Up until the end of October the project had delivered 20 broadband connections and has recorded a further 400 registered expressions of interest, which it hopes to connect in the next few weeks.

Demand Broadband
On 29 October the East of England Development Agency (EEDA) launched the second stage of their Demand Broadband campaign. They were already trialling a broadband brokerage service where people and businesses in the East of England could register their interest in subscribing to broadband services and broker local aggregated solutions once demand has reached critical mass. This next stage gives communities an opportunity to bid for part of a £3m competition fund to get broadband supplied to them.

The connecting communities competition has been designed so that communities can act together to consolidate demand and help justify the installation of broadband facilities by broadband providers. EEDA will work with telecommunications companies to develop cost-effective models that can be rolled out to the successful communities. The winning communities will be announced in March 2003, with the actual provision of services likely to happen between April 2003 and March 2004.

Case Study

Deep Blue Dive

Deep Blue Dive sells diving equipment and organises diving holidays and courses from its premises in Tyne & Wear. Alongside the physical store is an e-commerce website offering a virtual store plus customer information, newsletters and product updates.

The business is growing quickly and needed a faster connection for everything, including downloads, uploads and web research. “We download from the Sage website when we take orders and we upload them to process orders,” says partner John Paul Gardener. “We also upload graphic and other information to the virtual store on the web server, plus product updates and news.” Online ordering, in particular, is much faster with broadband. “We log on to Sage, click View Orders and wait for them to download, all of which used to take several minutes. Now it only takes one minute, and is much faster than with the ISDN line we used before. I wouldn’t want to go back to ISDN”.

John-Paul is very pleased with broadband, but has realised the necessity of having a sensible digital filing system and information storage policy for the businesses PCs. Broadband, being speedy and always on, encourages users to maximise internet usage and to download large amounts of information. Web technology is becoming increasingly sophisticated and users can sometimes download files without being aware of it. “I notice that it’s easy for the PCs to get cluttered up with junk information, and that slows things down. We bought a new PC last week, free of clutter, and when it went online, the connection was much faster.”

John-Paul has also been concerned about the amount of spam and virus carrying email that the business receives, he says, and although using broadband doesn’t create this situation, it can exacerbate it. “We have recently switched to having our emails scanned by our web host for a small monthly fee before they are forwarded to us, and this cuts down the virus risk considerably. We’ve also installed a firewall and anti-virus software,” he says.

John-Paul wouldn’t be without broadband now. “Technology is essential. Not having ADSL is like driving an old banger of a car. We renew our vans every three years and update our PCs regularly, and I see ADSL in the same way.” “Using broadband has definitely contributed to the success of the business”, says John Paul. “It definitely helps. Anything that makes our operations faster and more efficient is a bonus that we can pass on to customers.” Deep Blue is happy with its current level of service. “We can collaborate with partners via email, and everything moves in and out fast enough. There's no need to upgrade yet.”

Competitiveness

The UK has one of the most competitive broadband marketplaces in Europe, with competition at the wholesale infrastructure and retail levels. Wholesale competition is expected to increase following an Oftel Determination in June 2002 that requires BT to offer DSL interconnection services to other suppliers. This will enable operators to connect to BT’s network so providing a much wider range of wholesale and retail broadband services in competition with BT.

Retail competition is also advanced. Over 100 ISPs offer services based on BT’s wholesale ADSL products and a large number of consumers receive broadband cable modem services from the cable operators. This level of competition is superior to a number of other countries,

which do not have transparent non-discriminatory wholesale offers from the incumbent, such as Germany, and less competition from cable providers, such as Germany and France. In addition, there is provision by fixed wireless and satellite, and for larger businesses there are leased lines.

In April 2002 BT made considerable cuts to the prices of its wholesale DSL services. Retail ADSL prices have fallen by up to 39% since the beginning of the year, putting the UK third in the G7 for broadband prices behind Japan and Canada. Prices are now around £20-£30 for a 512kbps service, with 1Mb services retailing at a higher price. Some companies are currently offering 512kbps at lower than £20 a month.

Over the past year, Oftel has also played an active role in setting the regulatory framework for the broadband market, and has worked closely with industry to pre-empt and resolve disputes. In particular, Oftel's work has included: continuing to drive forward competitive access via Local Loop Unbundling; increasing competition in leased lines by requiring BT to provide partial private circuits at wholesale prices; and, promoting competition in retail DSL by ensuring BT's wholesale DSL services are available to all ISPs, including BT's own ISP, on the same terms and conditions.

While the UK remains fourth in the G7 for market competitiveness we have closed the gap with the countries ahead of us and pulled much further away from those behind us. We expect soon to advance up the ranking.

Take-Up

In October 2002 the number of mass-market broadband users in the UK rose above one million. This was a significant milestone for the British broadband market. This time last year there were only 180,000 – representing year on year growth of over 500%. By the end of October the number had exceeded 1.1m and was rising at over 20,000 a week. Recent marketing campaigns by service providers may increase the rate of growth still further.

The number of mass-market broadband users in the UK has now risen above one million

While current levels of broadband penetration remain lower than other G7 countries, the UK has now started to catch up and currently shows the highest growth rate amongst these countries. We are therefore confident that the UK can start to close the gap in terms of broadband adoption with other leading economies.

Broadband in Education

The policy of the Department for Education and Skills (DfES) is to connect schools in England to each other and the internet with broadband at 2Mbps or faster. The target to connect 20% of schools by August 2002 has been met, and the latest figures, as at 11th October 2002 indicate 23.6% of schools now having broadband connections (85% secondary schools, 14% primary schools).



DfES is currently working with the Regional Broadband Consortia (RBCs) to confirm targets for August 2003. Initial indications suggest that connections should reach 40% by August 2003. The provision of broadband connectivity, content and services through the RBCs and local education authorities is establishing a managed education network as the RBCs interconnect.

The Joint Academic Network (JANet) is an established network providing facilities for the Higher Education (HE) and Further Education (FE) sectors. National Learning Network (NLN) investment has gone a long way to transforming the FE infrastructure with all colleges now having a guaranteed minimum 2Mbps connectivity through JANet. SuperJANet offers a high capacity (5Gbs – 10Gbs) national backbone in addition to which there are 18 Metropolitan Area Networks (MANs) connecting to the national backbone. The MANs are managed by regional bodies, which are established as legal entities in their own right.

Strategy

The Government's ongoing strategy for developing the broadband market will focus around the following three areas:

- maximising competition in the broadband market;
- stimulating the roll-out and take-up of broadband in the regions; and,
- stimulating development of broadband content and applications.

Maximising competition in the broadband market

The Government continues to believe that having the right regulatory and market framework is one of the most important elements in our broadband strategy. Competition is the best means of delivering real choice and low prices to the consumer, both for broadband services and access to them.

Broadband will deliver converged media and this is one reason why we have created OFCOM as a converged regulator for a converged sector. The Communications Bill will give the Office of Communications (OFCOM) the powers it needs to adapt to the continuing revolution in the services on offer over both wired and wireless devices (see 'Supporting the Framework').

In the meantime both Oftel and the Radiocommunications Agency will continue to place broadband services at the heart of their regulatory effort to ensure that the neither the regulatory system nor players with market power inhibit the growth of the market.

Oftel will:

- review the broadband market and, by July 2003, decide what regulatory obligations should be imposed as part of the process of implementing the new EC regulatory framework.
- continue to drive forward access to BT's network, facilitating flourishing competition among broadband service providers and a wider choice of attractive broadband services for end-users by:
  – close monitoring of the roll-out of BT's broadband access products – in particular broadband interconnection and unbundled local loops;
  – monitoring the terms of supply of BT's broadband access products to allow broadband providers to compete with BT effectively, and intervening where necessary to ensure fair competition.
- ensure that partial private circuits are provided on cost-oriented terms subject to reasonable service level agreements, which will allow for flourishing competition in the retail markets for leased lines.
- continue to benchmark the costs of dial-up and broadband internet access in the UK against the costs in leading competitor countries.

The Radiocommunications Agency will:

- continue to develop a number of frequency bands to extend the possibilities for delivering broadband services by wireless, by:
  – releasing bands at 5GHz for licence exempt use (including self-provided systems and commercial public access services) by the end of 2002, and, subject to the successful completion of compatibility studies, a further band for fixed access broadband services in 2003;
  – considering further the terms and conditions of the award of spectrum at 3.4 GHz, throughout the UK for Public Fixed Wireless Access services;
  – considering the feasibility of offering commercial trial licences at the 40.5-43.5 GHz band for multimedia wireless systems. The band is a key resource for developing the next generation of broadband services.

Stimulating the roll-out and take-up of broadband in the regions

Around two thirds of the UK population is covered by a mass-market, terrestrial broadband solution. This figure is expected to rise significantly over the next few years but there are still many people – in rural and remote parts of the country – who can not access an affordable and reliable broadband service. This situation threatens the prospects for broadband to be a boon both to our economy and to our society, and it presents a major challenge to policy makers and to industry alike. But we recognise that left to itself the market will not always deliver what some people demand.

DTI and OGC will:

- set up a new UK Broadband Taskforce that will seek to stimulate the roll-out and take-up of broadband across the UK, particularly in rural and remote areas, and ensure that the public sector procurement of broadband has the maximum impact on regional economic development. It will consist of:
  - a regional broadband expert located in each of the RDAs and Devolved Administrations overseen by a network manager;
  - a team of procurement experts in the Office of Government Commerce (OGC) who will provide both hands-on support to public sector departments when procuring broadband; and new framework contracts to allow public sector organisations to procure broadband efficiently, without having to negotiate terms and conditions for each purchase (this is discussed in more detail below).
- host a major broadband conference on 20-21 November 2002, in collaboration with the Broadband Stakeholder Group, in order to bring together those engaged in helping build broadband Britain.

Not only is broadband important for national economy but we also think that it is important for local and regional economies. In the English regions, the RDAs, will have a total of £1.8bn next year to spend on furthering economic development and regeneration. Government Offices and Devolved Administrations also have responsibility for European Structural Funds. The taskforce will also advise the RDAs, Government Offices and Devolved Administrations on how to make best use of these monies where lack of broadband is identified as one of the barriers to regional development.

The public sector as a user of broadband will be a major driver for the introduction of broadband services up and down the country. Modern, high quality public services to which the Government is committed will require the use of modern communications networks. Over the six years 1998-2004, the Government has made available £1.8bn to increase access to ICT for pupils in schools. Of this, between 2002 and 2004, £710m has been made available through the Standards Fund for schools' ICT Infrastructure, including broadband connectivity. Earlier this year the Chancellor announced a substantial increase in Government's broadband expenditure.

The Government will:

- invest over £1bn in 2003–2006 in broadband connectivity for public services:
  - DfES plans to provide all primary and secondary schools with to 2Mb and 8Mb broadband connections respectively by 2006;
  - The National Health Service will provide all GP practices with 256k connectivity, and all hospitals, Primary Care Trusts and other Health Authorities with a minimum of 2Mb;
  - The Criminal Justice System will provide ICT infrastructure across the six major criminal justice organisations – police, crown prosecution service, magistrates courts, crown court, probation and prisons.

We will make sure that the potential benefit of this spending is maximised and takes full account of the benefits of broadband. In November 2001 the Prime Minister commissioned OGC to consider whether there is more that can be done to help Government department and others buy broadband more effectively.

The OGC completed this work in the Spring and found there was no systematic process for developing the capability of purchasing authorities and sharing best practice. Public sector organisations need information, advice, guidance and expertise to undertake their broadband procurements efficiently.

OGC will:

- work through the UK Broadband Taskforce to make public sector broadband procurement more effective by:
  - publishing non-chargeable advice and guidance on both: procurement best practice for purchasing authorities and suppliers; and specific procurement issues for purchasing authorities and suppliers (where appropriate);
  - providing a non-chargeable ad-hoc enquiry point, dealing with queries from public sector organisations and suppliers; and a 'news' facility highlighting European, central/regional/local Government initiatives and developments, broadband procurement notices; and developments in the telecommunications market place;
  - offering chargeable hands-on support to public sector purchasing authorities to assist with specific broadband procurement projects;
  - offering a chargeable broadband procurement research service for public sector purchasing organisations' specific assignments;
  - assisting OGC Buying Solutions (OGC.bs) in promoting the use of the broadband framework arrangements;
  - tracking and contributing where appropriate to broadband initiatives led by the European Commission (EC), Organisation of Economic Co-operation and Development (OECD) and other governments;
  - work with DTI broadband teams and major stakeholders so that there is a co-ordinated central operation for the provision of information and support across the public sector and to the supply-side.

DfES will:

- review at a national level their procurement strategy for broadband with the aim of ensuring best value for money for schools' procurement of broadband.

Framework Agreements will be let and managed by OGC's trading arm, OGC.bs. They will enable public sector customers to obtain best value when buying broadband services without requiring a separate procurement for each purchase.

It is intended that public sectors throughout the UK should be able to gain access to some form of high-speed connectivity under the frameworks. The primary objective is to provide broadband connectivity via digital subscriber line, cable modem, fixed wireless access, satellite and similar or successor services. It is anticipated that some contracting authorities will also require higher-speed services such as are typically provided via optical fibre connections. The frameworks will also offer ancillary services such as remote access, centrally hosted applications and security functionality. In addition, service providers may include in their offer exchange lines, voice telephony, voice messaging and similar services.

Any UK public sector contracting organisation or any service provider acting on its behalf will be albe to utilise the broadband frameworks provided they sign an access agreement. The frameworks will provide customers with a 'one-stop-shop' for the procurement of value for money commodity broadband services.

OGC.bs will:

- establish new framework contracts to allow public sector organisations to procure broadband efficiently and advantageously, without having to negotiate terms and conditions for each purchase. The frameworks will be awarded early next financial year.

Stimulating development of Broadband content and applications

Content and applications will play an increasingly prominent role as a driver of mass adoption of broadband services. The Government has a role to play, working with industry, to examine how the business model works for broadband content. The availability of broadband-on-the-move will further increase the market for digital content, bringing benefits for business consumers and the delivery of Government services.

Over the last year, the DTI began work with the Digital Content Forum (DCF), to investigate what the position was in the UK and elsewhere with regard to content. The DTI and the DCF jointly commissioned a study which showed that, after a number of false starts, the market was beginning to address many of the barriers it faced, but left to itself it was likely that the market would not develop evenly. There was also a real danger that the UK could be left behind as broadband was developed for the global market elsewhere. It suggested a number of possible pilot projects that could be undertaken, and some of these are now being investigated further.

DTI will:

- continue to investigate possibilities for pilot projects around such issues as digital rights management and micro-payments.

The Government is also committed to providing learners with access to high-quality digital learning resources. One of the key initiatives underway is Curriculum Online. The vision for Curriculum Online is to give teachers easy access to a wide range of digital learning materials, which they can use to support their teaching across the curriculum. These materials will form a consistent, coherent and comprehensive educational service for teachers and pupils. These materials will help free teachers to do what they do best – teach – by making lesson planning and administration easier and faster, and will help teachers make individualised learning for all pupils a reality.

Government also recognises the need for high quality e-learning materials for FE Colleges, for learners in Adult and Community Learning and across the whole spectrum of post 16 learning. The Post 16 e-learning Task Force, led by Steve Morrison, recommended the establishment of a post 16 Curriculum Online. In June 2002 the Secretary for State for Education announced funding to look at the feasibility of a College Online with a supporting development budget of £0.5m for 2002-03.

Supporting the framework

Introduction

The regulatory framework impacts all three sections of this report. For Business it is important to remove barriers to e-business and to recognise the global nature of today's marketplace. For Government it is important to ensure that there are no regulatory barriers to delivering Government services online. And for People it is important to ensure that everyone can use the internet safely and securely.

The Government remains committed to a light touch approach to the legal and regulatory framework for e-business and to maintaining a supportive fiscal framework, which encourages businesses to engage in e-commerce with certainty and everyone to use the internet safely and securely.

Background

The last year has seen a number of developments and achievements at the domestic, European and international level. Some examples include:

Provision of online licensing to re-use core Government information

The world of information trading has been through a quiet revolution. Most information gathered to support core Government activity is now available for re-use at no more than the marginal costs of supplying it – in effect at no charge. Anyone in the commercial sector, from voluntary organisations to private citizens can take out an online Click-Use License to re-use core Government information in new products and services, many of which use digital and internet based technology. The UK is a leading player in this field. The Click-Use License has liberated businesses trading in such information from bureaucracy, thereby supporting and developing the knowledge economy. There are over 2,000 Click-Use licensees globally[18].

Implementation of the e-Money Directive

Electronic money has the potential to create a modern and effective means of payment that facilitates e-commerce and novel ways of doing business. It is defined as monetary value that is stored on an electronic device, which can be used as a surrogate for coins and banknotes.

The Government takes a positive and constructive view of the long-term potential of electronic money. The Electronic Money Directive[19] mandated the establishment of a new prudential supervisory regime for

electronic money institutions. The Directive was implemented in UK law in March 2002. The Government's approach to implementation was to do so with as light a touch as possible and to provide for a technologically neutral regime. In this way, regulation should not unduly burden existing e-money issuers and should encourage technological innovation and new entrants, both from within the banking sector and elsewhere.

The new regime for electronic money institutions came into operation on 27 April 2002. As a result, the Financial Services Authority is now responsible for the regulation of electronic money institutions.

Working with partners to make the reform of ICANN a success

The Internet Corporation for Assigned Names and Numbers (ICANN), the US based not for profit organisation which co-ordinates the internet's domain name system, announced in February 2002 that it was in need of urgent reform. The UK Government, working through the ICANN Government Advisory Committee (GAC), is working with ICANN, our international partners and key stakeholders to make the reform of ICANN a success. As part of this work, we issued a consultation document in May 2002 to seek the views of the UK internet community on ICANN reform. We support the idea of a public/private partnership for ICANN and are working to ensure the management of the domain name system fully takes into account public policy interests.

Signing of the Council of Europe Cybercrime Convention

While most crimes committed on-line mirror off-line crimes, their nature is that they more often require an international response and the immediate freezing of evidence. Most countries' domestic legislation relating to offences and criminal procedures are still adapting to the technical challenges on-line crime poses.

In November 2001, the UK and 33 other countries signed the Council of Europe Convention on Cybercrime. Its aim is the improved effectiveness of Party countries' domestic legislation to deal with the potential criminal exploitation of new opportunities provided by the revolution in information technologies.

The UK actively supported the development of the Convention and is working to ratify it, together with other countries. The European Commission has proposed a Framework Decision on Attacks Against Information Systems, which will augment and strengthen the Convention provisions still further for EU Member States.

Implementing regulations for the e-Commerce Directive

The e-Commerce Directive was adopted in June 2000 and establishes a new regulatory framework for online services in Europe. The UK has now implemented the Directive. The implementing regulations were introduced in July this year, following extensive public consultation, and came into force in August and October. They include provisions for:

- the national law that applies to cross-border online services in the EEA;
- the information an online service provider must give a consumer, including discounts and offers in online advertising and how to conclude contracts online;
- limitations on service providers' liability for unlawful information that they unwittingly carry or store.

Implementation of the Directive marks an important step in encouraging greater use of e-commerce by breaking down barriers within Europe and boosting consumer confidence in online services.

Strategy

The Government's approach to creating the right regulatory and fiscal framework for e-commerce continues to focus on enabling opportunity, encouraging innovation,

supplying advice and creating the right environment, at a domestic, European and international level. The Government will continue to promote co-regulation where appropriate, as a means of providing a more rapid and flexible response to changing market needs and achieving international consensus, than is possible through legislation.

e-Commerce has changed the regulatory paradigm, traditionally based on clear, enforceable territorial boundaries. Policymakers now need to take account of the special features of e-commerce and ensure that they do not introduce policies that would hinder its growth. The e-Policy Principles[20], for example, are a tool for policymakers to analyse the impact of their proposals on e-commerce and they are now part of the formal policymaking process.

Government's ongoing strategy for the next year will focus on a wide range of issues including:

- creating a new regulatory framework for the communications sector;
- levelling the international playing field for VAT treatment;
- continuing to create a supportive regime for Intellectual Property Rights;
- removing existing legal and regulatory barriers to e-commerce;
- maintaining a balance between protecting individuals' privacy and burdens on e-businesses;
- enabling investigation and prosecution of crime on the internet.

Creating a new regulatory framework for the communications sector

The Communications Bill represents a coherent new approach to regulation in telecommunications and broadcasting. It enables the UK to realise the vision that was set out in the White Paper 'A New Future for Communications' published in December 2000 – with OFCOM regulating these converging industries within a flexible framework that will deliver a dynamic and competitive marketplace while protecting consumers and citizens.

In May this year we published the Communications Bill in draft for public consultation and received over three hundred submissions from business, consumer groups and individuals[21]. The draft Bill was also scrutinised by a Joint Parliamentary Committee of Peers and MP's who made 148 recommendations. Work is underway to consider all the responses and recommendations and refine the Bill so that it is ready to be introduced into Parliament as soon as parliamentary time allows. The new regime will:

- depend more on competition, and on competition law exercised by a sector-specific regulator;
- provide for further deregulation as markets change;
- allow spectrum trading, leading to more efficient use of the available radio spectrum;
- reduce Media Ownership regulations;
- allow for self-regulation wherever possible;
- scrap complex schemes for licensing and accessing networks.

The Office of Communications Act 2002, which received Royal Assent in March enabled us to set up OFCOM to carry out preparatory work so that it can hit the ground running when it receives regulatory functions under the Communications Bill. We appointed Lord Currie as Chair of OFCOM in July and made four more appointments to the Board in September. By the end of the year the full board will be in place to oversee the creation of the new organisation.

DTI and DCMS will jointly:

- continue to work towards the creation of a new regulatory framework for the communications sector, bringing together the functions of the Independent Television Commission (ITC), Oftel, the Radio Authority, the Broadcasting Standards Commission and the Radiocommunications Agency in a single body, OFCOM, with a strategic overview of the whole sector.

Levelling the international playing field for VAT treatment

The UK was also instrumental in levelling the VAT playing field between EU and non-EU businesses providing electronically supplied services, including digitised products. From 1 July 2003, the VAT Directive will ensure that such services will normally be taxed in the country where the customer belongs, so removing the present anomaly where tax is due in the supplier's country, irrespective of where the customer belongs or where the services are consumed.

The exception is intra-EU B2C services. These will remain taxed in the supplier's member state. However, from 1 July 2006, these too should be taxed at the rate due in the customer's Member State.

HM Customs & Excise will:

- actively consult with businesses on the details of implementing changes to the VAT playing field in order to clarify the definition of electronic services covered by that Directive and also on a pragmatic approach which will minimise burdens on business.

The UK is also working closely with international partners and business at the OECD to ensure a consistent world-wide approach for the collection of consumption taxes on electronically supplied services. As a member of the OECD Consumption Tax Technical Advisory Group, the UK is playing a major role in achieving international solutions in partnership with business to define place of consumption and, as necessary, to simplify and modernise current consumption tax systems. The UK also has a leading role in the current 2001 to 2003 work programme to identify and examine technology based tax collection mechanisms.

HM Customs & Excise will:

- work closely with international partners and business at the OECD to ensure a consistent world-wide approach for the collection of consumption taxes on electronically supplied services.

Continuing to create a supportive regime for intellectual property rights

The dramatic growth and diversification of the internet has created complex new challenges for intellectual property (IP) policy-makers and for IP-dependent businesses. All forms of IP have been affected but copyright is in the front-line. Recent high-profile court cases (e.g. Napster) have fuelled a complex debate about the respective interests of creators, performers, publishers, producers, intermediaries and consumers.

UK law in this field has so far proved remarkably 'future-proof'. The 1988 Copyright, Designs and Patents Act provided the basic rights relevant to the internet and was ahead of its time in giving copyright owners exclusive rights in relation to electronic communication.

Early steps were also taken to develop new international copyright rules. The 1996 'Internet Treaties' (the Word Intellectual Property Organisation (WIPO) Copyright

Treaty and the WIPO Performances and Phonograms Treaty) agreed by the WIPO were an important first step along the road towards an international copyright regime which would keep pace with the new technologies.

The WIPO Treaties entered into force in 2002. The EC Directive on copyright and related rights in the information society will clear the way for the EU and its Member States to ratify these Treaties. The Directive will be implemented by 22 December 2002 and the UK Patent Office has consulted on proposed changes to the 1988 Act. The copyright Directive was the subject of long and careful deliberations during the process leading up to its adoption, and seeks to strike a fair balance between the interests of right owners and those of legitimate users of protected material.

The UK Patent Office will:

- implement the EC Copyright Directive and continue to work with Community partners to ratify the WIPO treaties.
- engage in the implementation of recommendations made by the Intellectual Property Group of the Creative Industries Task Force, aimed at gauging current levels of consumer awareness, developing strategies for raising these, and embedding an appreciation of IP in our schools and universities.
- explore the common ground relating to intellectual property rights between business, enforcement bodies and consumers through the work of the Counterfeiting and Piracy Forum.

Removing existing legal and regulatory barriers to e-commerce

Individuals and business are sometimes unable to enjoy the full potential benefits offered by the internet because of legal and regulatory barriers. The Government is therefore committed to remove these.

Following advice from the Law Commission in December 2001[22] Government adopted a new perspective on this work. This advice argued that in many contexts, references to writing and similar terms could include electronic communication. As a result, it is not necessary to make an order under section 8 of the Electronic Communications Act 2000 to enable every statutory requirement of writing to be fulfilled electronically.

But in many cases a section 8 order is required to authorise or facilitate electronic communication, and the Government has made good progress in making such orders. A list of Statutory Instruments made and proposed is on the OeE website. To date, 11 Statutory Instruments have been made, including two orders coming into effect in 2002, to facilitate electronic claims to child benefit and to provide for electronic authorisation of public records for court proceedings.

DTI will:

- consult on its proposals for the reform of the 1974 Consumer Credit Act to permit consumer credit agreements to be made online.

DfES will:

- consult on a section 8 order to allow statutory notices to be sent to parents electronically, subject to their consent.

The Lord Chancellor's Department (LCD) will:

- make a section 8 order to authorise electronic contracts for the transfer of interests in land when legislation has been put in place to provide for the electronic payment of stamp duty. This order will form part of the legal framework for electronic conveyancing, for which the foundation was laid in the Land Registration Act 2002.

In addition separate legislation is being developed under the powers of the Finance Act 1999 to authorise electronic communication for Customs and Excise and Inland Revenue purposes. This will permit the delivery by electronic means of certificates of tax deduction and tax credits; facilitate the electronic delivery of corporation tax returns; and, enable people to make requests by electronic means for decisions by the Inland Revenue on their entitlement to statutory maternity pay, statutory adoption pay and statutory paternity pay.

Maintaining a balance between protecting individuals' privacy and burdens on e-businesses

The Directive on Privacy and Electronic Communications (2002/58/EC) was adopted in July this year for implementation by 31 October 2003. The Directive will update current rules on data protection and privacy in the light of new technology, with new requirements for transparency in the use of cookies and similar devices, and for opt-in consent for unsolicited commercial e-mail (UCE), except in the context of existing customer relationships.

DTI will:

- consult in early 2003 on how to implement the new rules on data protection and privacy, aimed at creating a fair and effective sectoral privacy framework which gives users and service providers confidence about their respective rights and obligations.

Enable investigation and prosecution of crime on the internet

Increasingly the detection, investigation and prosecution of crime in general (and online crime specifically) relies on public authorities with law enforcement functions having access to communications data. (That is data about communications not their content). The Regulation of Investigatory Powers Act 2000 (RIPA) provides for regulated access to communications data for law enforcement and public safety purposes.

In June, in response to popular concern and misunderstanding about why public bodies need access to telephone and internet user records, the Home Secretary withdrew an Order laid before Parliament that would have extended the range of public authorities able to use the RIPA provisions for access to communications data. He announced a detailed public consultation on the issue would proceed any new proposals.

The Home Office will:

- publish a consultation document before the end of 2002 on proposals for access to communications data in the context of striking the right balance between respecting individual privacy and serving society's interest in investigating crime and protecting the public.

The effectiveness of the RIPA provisions for access to communications data depend on the data needed by law enforcement bodies being available. The Anti-Terrorism, Crime and Security Act 2001 (ATCS) provides a framework for the retention of communications data. The Government is consulting with industry on how to implement the ATCS provisions and will address this issue more widely in the public consultation on access to communications.

Increase Productivity through Skills

Introduction

Improvements to the supply and quality of specialist ICT skills will play a crucial role in our drive to help businesses improve their productivity. The White Paper 'Opportunity for All in a World of Change', published in February 2001, sets out the Government's ambition to make the UK the number one country for the supply of advanced ICT and related skills.

There is a well-established relationship between improvements in skills and increased productivity[23]. The accumulation of human capital is one of the prime determinants of labour productivity and growth.

Skilled workers can often adapt faster and more effectively to change and may be better at implementing new investments and innovation. They can increase the ability of a firm to update its practices and products at the rate demanded by rapidly changing markets. The impact of skills on productivity also works through effects on capital investment levels. Highly skilled workers can help firms to gain the full rewards on new investment and therefore increase the likelihood that investment will occur.

Facts and Figures

- The ICT workforce in the UK comprises about **1.2 million** people.
- Nearly one third of ICT staff work in London and the South East.
- About **40%** of ICT workers are employed in ICT-dedicated enterprises.
- About **two thirds** of the ICT workforce is male, rising to **three quarters** in the IT and telecommunications sector itself.
- Employers still report hard to fill vacancies but the intensity of skill shortages has considerably reduced since Spring 2001.
- The focus for employers currently is upgrading the skills of their existing staff, with nearly one in two employers reporting skill gaps in the workforce.

Source: e-Skills Regional Gap – e-Skills UK 2002

The link between skills and business productivity and competitiveness is recognised in the creation of a new network of Sector Skills Councils (SSCs) that will replace the old network of National Training Organisations. SSCs are influential employer bodies, licensed by Government that will lead the drive to significantly improve skills and productivity in industry and business sectors throughout the UK.

Background

Over the last three years, Government's strategy for high level ICT skills has focused on how the UK can match the supply of these skills more effectively to business demand. During the late 1990s, business demand was characterised by the need for increasing number of people to fill ICT job roles. However, particularly since the downturn in high tech sectors, employers' focus has switched more to tackling skills gaps in their workforce.

Highly skilled workers increase the likelihood that investment will occur

ICT skills help improve productivity

Government's strategy draws on the analysis and recommendations of the industry report Skills for the Information Age[24] published under the auspices of the National Skills Taskforce in November 1999. The 'Opportunity for All' White Paper also included significant commitments to improve the supply of ICT skills in the UK. We have sought to address key priorities.

Improving the UK's understanding of the labour market for ICT skills

Policy in support of ICT skills must reflect accurately the dynamics of the labour market. Because of the fast changing nature of ICT and the job roles within ICT, we need to be able to track changes in line with the realities of the labour market.

With support from DfES and the DTI, e-Skills UK, the former National Training Organisation, has published two extensive surveys of employer demand for ICT skills. e-Skills 21, published in January 2002, canvassed the views of 4,000 employers of ICT professionals to provide a detailed picture of the current and future labour market for ICT skills. This was updated in August 2002 with a breakdown of employer demand on a national and regional basis, matched to a supply side analysis. A quarterly bulletin on the ICT labour market provides an ongoing perspective of supply and demand. This body of data contributes to the UK having an accurate up-to-date assessment of the ICT labour market that tells us the size and make-up of the workforce and how effectively the education supply side is meeting demand.

Case Study

Skills Framework for the Information Age (SFIA)
SFIA is one of the most flexible and sophisticated skills classification frameworks for ICT in the world. Developed by e-Skills UK, the former national training organisation, in partnership with industry experts, the SFIA framework represents a multi-purpose tool for employers and individual ICT professionals to address their ICT skill needs. SFIA:

- gives employers a translation framework constructed in plain English which they can use to measure the ICT skills they have against the skills they need and identify gaps;
- allows ICT practitioners and users to benchmark which skills they need in support of their professional development and career progression;
- supports the collection of labour market intelligence coherently and consistently to quantify the skill requirements of the ICT market identify skills which are in short supply, or report on how short the supply is;
- provides education and training providers with a consistent background to develop skills to meet ICT market needs.

SFIA was formally launched in 2001 by e-Skills UK and the DTI. The framework is being adopted by a number of major employers of ICT professionals in the UK as a benchmarking tools and is of increasing interest to skills bodies and employers internationally. To encourage further adoption of SFIA, e-Skills UK is creating the SFIA foundation, a not-for-profit body to manage the framework's further development.

Expanding specialist ICT and other high tech learning programmes in further and higher education

If we can successfully identify ICT skill needs, ICT and other high tech learning programmes needs to be responsive to the changing nature of these needs, in terms of quantity and quality. The 'Opportunity for All' White Paper announced major investments in the capacity of the education supply side to deliver advanced ICT skills into the labour market. In particular, DfES has made:

- £25m investment in the creation of a regional network in England of New Technology Institutes to provide learning in ICT and support the transfer of new technologies and business practices to companies;
- £100m investment in developing specialisms, such as electronics, ICT and design & technology, in further education colleges in England.

Developing skills to meet ICT market needs

The Qualifications and Curriculum Authority (QCA) have been working with awarding bodies and the former National Training Organisations to develop a national qualifications framework for ICT that offers a simple and comprehensive structure of vocational awards that supports the needs of business and individuals. The new framework has simplified the provision of qualifications by reducing the number of awards by 60%.

Reversing under-representation of women in ICT jobs

The Government aims for the UK to match the best of its competitors with regard to women's employment in ICT. Women account for no more than a third of the workforce in IT jobs and, in the IT and telecommunications sectors, this falls to about a quarter. Women are missing out on the opportunity to earn the higher wages available in IT. An IT industry dominated by men is using only half the available talent and creativity. The DTI and DfES are supporting a programme of work with the former National Training Organisations to improve the often negative perceptions held by women about working in ICT. Our goal is to persuade girls and women to consider ICT as a potential career path and show how women can succeed in ICT as much as men, whatever their aptitudes and interests.

DfES has supported a project, undertaken by e-Skills UK, to identify and promote good practice in recruitment and retention. The project focussed on emphasising the opportunities for businesses to broaden recruitment into under represented groups, especially women. A self assessment guide has been produced for business, together with a series of recruitment tips, designed to provide employers with access to support and advice about effective, practical recruitment, retention and training practices to help them employ staff from non-traditional groups.

Improving the dialogue between education and employers over the nature of business demand for ICT skills and the supply of these skills into the labour market from the education supply side

We aim to improve the supply of, and demand for, ICT skills by developing a greater mutual understanding between employers and schools, colleges and universities of what skills businesses require in their ICT workforce. The DTI has supported the development of HE-IT.com, a web based forum to enable business and universities to share perspectives on issues of mutual concern. UK organisations have also been active participants in the European ICT skills consortium Career Space. The consortium has published guidance to universities for aligning their ICT curricula against the skill needs of employers. This guidance is being implemented in pilot programmes in the UK and a number of other Member States.

The DTI has supported a programme to introduce Graduate Apprenticeships into ICT and electronics under and post-graduate courses. The apprenticeship frameworks enable students to develop the competencies and skills that employers require through work based learning opportunities. e-Skills UK is also seeking to increase the availability of high quality work placements in IT, supported by a web based opportunities directory and information exchange that brings together businesses offering IT work placements and individuals seeking work experience.

Strategy

Labour market conditions for ICT skills have changed dramatically during the period that the DTI and DfES have supported their skills strategy. This has been largely driven by the global downturn in the ICT sector. However, employers still regard skills as a top business priority and a key determinant of improved productivity and competitiveness.

Employers are currently focusing on improving the skills of the existing workforce. There is a pervasive problem of skills mismatches, the gap between what employers need in term of skills and knowledge sets and what their new or existing workforce possess. These skills mismatches relate as much to people's 'employability' and 'creative' skills as their technical ability.

Skills mismatches are exacerbated by the fast changing nature of technologies and markets in ICT. It can be a considerable challenge for employers to understand and articulate their demand for skills or for the education supply side to respond with appropriate changes to supply. For example the telecommunications sector has experienced rapid change in technologies and market structures, as well as the impact of the recent economic downturn, all of which has affected the nature of job roles in the industry. Some people find their skill sets overtaken by technology or changing market dynamics; while employers find it difficult to recruit for the emerging job roles that new markets and technologies create. And, although skill shortages are less evident than a few years ago, an upturn in ICT markets may see problems re-emerge. Over the long term, the currently declining number of young people in the UK studying the physical sciences, engineering and maths may translate into skill shortages for ICT, as well as for other engineering and technology based sectors.

As a result of the 2002 Spending Review and the Government's strategy for science, engineering and technology, an additional £1.25bn will be invested by 2006 in science, engineering and technology to boost the UK's economic performance and raise levels of innovation and growth. As part of this, we are taking forward the recommendations of Sir Gareth Roberts for improving the supply of qualified scientists and engineers. By 2005/06, an additional £100m a year will be available to help improve the quality of the UK's science and technology skills base.

In the context specifically of ICT skills, the DTI and DfES will work with the new sector skills councils for the ICT and related sectors as well as with other partners in business and education to address business demand for skilled ICT workers. In particular:

DTI will:

- assess the UK's current performance in the supply of advanced ICT and related skills and the application of these skills to drive productivity and competitiveness, seeking to identify suitable performance indicators and, working with the Sector Skills Councils and other partners, seeking to improve the UK's performance against leading competitor nations.

An additional £1.25bn will be invested in science, engineering and technology to boost the UK's economic performance

DTI and DfES will:

- encourage the use by business and education of common ICT job profiles and the SFIA skills classifications framework, by:
  - working with the soon to be created SFIA foundation to persuade many UK employers, in the private and public sectors, to make use of the framework;
  - working with partners in the European Union to establish a common skills framework for Europe;
  - working with partners in Europe to encourage the continued refinement of common job profiles, including validating them against the needs of ICT occupational roles that exist in non-ICT industries and the job roles in SMEs;
  - working in partnership with universities and colleges to support the design and delivery of ICT curricula that addresses more directly business demand for ICT skills;
  - investigating the potential for a 'passport' of achievement that recognises students' development of the skills and knowledge demanded by industry endorsed ICT job profiles.

DTI will:

- work to improve awareness and demand amongst employers for ICT and e-business training and workforce development, by:
  - supporting efforts to up-skill the telecommunications workforce in the UK to ensure businesses have the skilled labour they require for the 21st Century and to preserve the employability of workers in the industry in the face of continued market and technological change;
  - working to understand and address the demand for 'e-business' skills. This includes the combination of technical and user skills in ICT, business, management and leadership skills that managers and workers will need to successfully integrate ICT into the business.

DTI and DfES will:

- work to improve the diversity and equality of opportunity in the ICT workforce by increasing the proportion of women who enter and remain in ICT employment by:
  - continuing to work with partners to enthuse all children about science, technology, engineering and maths using the SETNET Network;
  - supporting the further development of the Computer Clubs 4 Girls programme that helps to enthuse girls about IT whilst teaching them professional ICT skills;
  - taking forward the Key Stage 3 ICT strategy in schools that suggests 11-14 year old pupils will have a minimum of one hour a week of dedicated ICT learning;
  - working with business to improve the retention of women in the ICT workforce through the adoption by employers of better working practices that meet the work/life balance needs of men and women.

3

Government

Quality services at both national and local level which transform the experience of users – and the efficiency of Government itself

Summary

Our goal is to make all Government services available electronically by 2005 with key services achieving high levels of use

The Government will:

- transform Government by:
  - redefining the vision of Government's role in delivering services online; transforming the experience of users of public services and the efficiency of Government itself; and by developing a longer-term vision for the direction of the e-Government programme beyond 2005.
- make Government more customer focused by:
  - enhancing the delivery of key public services at national and local level; providing leadership across central Government to minimise risk and ensure delivery of a core e-Government programme; overcoming barriers to change; providing access in ways people want; and by enhancing the democratic process.
- transform the efficiency of Government itself by:
  - driving the take-up of key services to achieve high levels of use; facilitating a mixed economy for the delivery of public services; setting common standards for delivery; and by delivering a common infrastructure across Government.

The Government is committed to a radical reform of public services. The public sector has to rise to this challenge by providing flexible, responsive, high quality services. e-Government is a powerful catalyst to bringing about this transformation. Exploiting the opportunities new technology brings will allow Government to build services around customers' needs – and increase the efficiency of the end-to-end delivery processes. The outcome of the Spending Review 2002 recognises this, by committing just under £6bn over three years. This will allow: patients to benefit from applications such as electronic patient records and online appointment booking; victims, witnesses and jurors to use citizen-facing portals in the criminal justice system; local Government e-services to be supported; and, voters' participation in the democratic process to be enhanced through e-voting.

Our e-Government strategy focuses on providing quality services at both a national and local level which meet the vision of transforming the experience of service users – and transforms the efficiency of Government itself. We are also looking beyond 2005 at the future scope for service delivery. This will include the ways in which new technology may bring about a greater transformation of services and Government itself.

We have already made progress. The provision of information has been transformed and 54% of services are available electronically. The UK online portal provides a single route into Government and the Government Gateway delivers world-leading integration and authentication. The UK is also a leader in terms of developing e-democracy – using ICT to help people and organisations participate in the democratic process in more flexible ways.

It is essential that citizens and business use e-services. High levels of take-up will be a key measure of success and unlock the benefits and potential efficiency gains that e-Government can bring. So we will give even greater focus to the transactions that

people most undertake with Government. These include: services to businesses; benefit and personal taxation services; transport services; educational services; health services; citizen interactions with the justice system; land and property services; agricultural services and e-democracy. To drive this forward, Government has enhanced the 2005 Electronic Service Delivery (ESD) target to include a commitment that "key services will achieve high levels of use".

e-Services must offer a real advantage for citizens and business over traditional channels of service delivery. Our strategy focuses on enhancing the delivery of key public services at a national and local level to meet people's needs, by providing access to services in ways people want, overcoming barriers of trust and confidence to using these services – and motivating people to take up the services on offer.

ICT can also increase productivity within the public sector itself. Delivery organisations can connect the whole delivery process, taking the opportunity to break down existing internal barriers and eliminate inefficiencies. This in turn creates the potential to free resources for other priorities. Our strategy is designed to ensure that the opportunity for Government to transform itself in this way is realised.

Opening the market for Government services may accelerate the development of more innovative, customer-focused services. We will focus on facilitating a mixed economy for delivery of public services, where customers can engage with intermediaries from the public, private and voluntary sectors to use public services in ways they want. Common standards for delivery and putting key infrastructure in place will also underpin the change to more joined-up, efficient, services.

The UK has one of the world's most comprehensive e-Government programmes. This chapter sets out our vision and strategy for transforming Government by delivering customer focused, efficient Government services.

Where does the UK stand?

We have already made progress in realising this vision:

- we have transformed the provision of information. Instead of the mass of information only available on paper, information is now easily and freely available on the internet 24 hours a day, seven days a week. This can go beyond what could be provided using traditional channels, for example, NHS Direct offers authoritative health advice, either online or over the phone.
- 54% of services are available electronically and we forecast that 73% will be available by the end of the year. Some notable services are at table 1. Departments also forecast that they remain on track to meet the 2005 target[25].
- Moving beyond information services, things that people can do online include applying for the new Child and Working Tax Credits, submitting self-assessment tax returns online, and booking and paying for a driving theory test. Consumers and small businesses can sue for money owing, get a judgement, and then send in the bailiffs – all online. Anyone claiming up to £100,000 will be able to issue a claim through the Court Service, using the Money Claim Online website[26].
- English local authorities expect over a third of services to be online by the end of 2002, and full coverage by 2005.
- The UK online portal continues to provide a single route into Government and the Government Gateway delivers world-leading integration and authentication.
- We are a leader in our international benchmarking group in developing e-democracy in terms of progress towards e-voting.
- It is estimated that over 4 million adults have accessed Government websites in the UK.

Case Study

NHS Direct

"I think it is a great idea and it has helped me to confirm a suspected condition which I can now tend to. A great thing if you're not feeling ill enough to go to your doctor"

Launched by the Prime Minister in December 1999, the NHS Direct website receives nearly half a million visitors each month. There is a self-help guide to treating common health problems at home and encyclopaedia covering hundreds of illnesses and conditions, tests, treatments and operations. A searchable database help you find your nearest hospital, GP surgery, dentist, optician or pharmacy. You can also get healthy living advice, with ideas and suggestions on making changes to your lifestyle to help you look and feel better, live longer and reduce your chances of falling ill. If you cannot find the information you are looking for on the website, you can tell NHS Direct Online what you need and they will send it to you.
"Just wanted to say how impressed I am with your site – really, really useful."

NHS Direct Online plans to extend the level of interactivity available, so that it is able to offer more of the benefits which are available through the NHS through the NHS Direct telephone service and allow users to personalise the website, so that they can keep information relevant to them in one place.

Table 1

Services for Citizens	Services for Businesses
Purchase a TV licence – *(http://www.tv-l.co.uk)*	Employment relations information – (http://www.dti.gov.uk/er)
Self assessment tax returns – *(http://www.ir.gov.uk/sa/index.htm)*	Criminal Records Bureau online information service for organisations – *(http://www.crb.gov.uk)*
Research family records – *(http://www.familyrecords.gov.uk)*	Applications for export licences – *(http://www.dti.gov.uk/export.control/applying.htm)*
Find out where roadworks are in the UK – *(http://www.highways.gov.uk)*	Information about corporation tax – view company tax payments and liabilities online – *(http://www.inlandrevenue.gov.uk)*
Online legal advice – *(http://www.justask.org.uk)*	Information on health and safety legislation – *(http://www.hse.gov.uk)*
Online university applications – *(http://www.ucas.ac.uk)*	Order and pay for key company information – *(http://www.companieshouse.gov.uk)*
World-wide weather forecasts – *(http://www.metoffice.gov.uk/weather/europe/uk/ukforecast.html)*	UK Patent Office search facility – *(http://www.patent.gov.uk)*
Apply for Child Tax Credit and Working Tax Credit – *(http://www.taxcredits.inlandrevenue.gov.uk/Apply/ApplyInitAdvice.aspx)*	Send and receive a range of PAYE forms – *(http://www.ir.gov.uk/efiling/help/introduction.htm)*
Online health advice – *(http://www.nhsdirect.nhs.uk)*	Submit VAT returns – *(http://www.hmce.gov.uk/business/electronic/evr.htm)*
	Company Registration (Incorporation) – *(http://www.companieshouse.gov.uk)*
	Submission of Common Agricultural Policy Integrated Administration and Control System (CAP IACS) forms by farmers and their agents – *(http://www.courtservice.gov.uk/mcol)*
	Consumers and small businesses can also sue for money owing – *(http://www.courtservice.gov.uk/mcol)*

International Comparisons

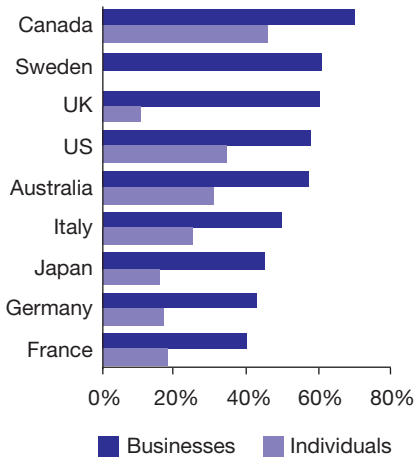
The 2002 International Benchmarking Study established a broad range of indicators to determine the strength of the UK's e-economy. The Study identified several factors that affect the ability of governments, businesses, and citizens alike to take advantage of the opportunities that the internet offers.

The Study shows the UK has one of the most comprehensive e-Government programmes across the benchmarking countries and is one of only two countries with a target to have all services online by 2005. The UK was one of the first countries to publish an interoperability framework to facilitate adoption of common standards between departments – a lead which other countries are now following. The UK also leads in having developed the key IT core to enable secure transactions with citizens and businesses: the Government Gateway.

But the UK seems to be behind leading nations in the use of both networked PCs and the use of internet within Government departments, both of which are important for business process improvement and yielding productivity benefits. The most successful e-Government approaches are characterised by strong Government leadership and a dual focus on back-office integration and front-office service delivery. Although we are behind the US, we are among the 'chasing group' in terms of laying the foundations for e-Government.

Take-up among businesses (Figure 7) is better than for individuals. This is, perhaps, surprising considering the high level of connectedness among UK adults combined with a high tendency to transact online with the private sector. This asymmetry in use, which is unusual among the benchmark nations, is possibly an indication of the success of UK online for business[27] in raising awareness of the wider benefits of ICT. Those countries in which there is higher take-up of e-services tend to offer more user-centric services, or have prioritised service roll-out by feasibility of delivery and usefulness to stakeholders. The most successful countries have also encouraged flexibility in delivery of local e-Government services through autonomy and competition between local authorities.

Figure 7: % using e-governmental services (2001)



Source: Taylor Nelson Sofres, Jupiter, DTI IBS (2001)

In terms of the overall impact of e-Government, measured as the degree of change to working practices within Government and the changing interaction with citizens and businesses, the UK has seen average levels of impact. It is early days and there is, as yet, scant evidence of impact across any of the countries. A common issue across the benchmark group is that few countries have effective measurement programmes in place to monitor the impact of e-Government. Developments in e-democracy have been especially strong in the UK: the UK is a leader within the benchmarking group in terms of progress towards e-voting, and has run the most extensive pilots. The Knowledge Network, with its potential to transform business processes and encourage new ways of virtual working out of departmental silos is also leading technology.

Government's strategy

Transforming Government

- **Where we are going**

The Government is committed to a fundamental reform of public services. People and business need to be able to transact with Government where they want, when they want, using the channels they prefer – knowing that they will get a high quality service they can trust. e-Government allows services to be built around customer needs and aspirations – services that are more flexible, more accountable, and have increased levels of autonomy at local level.

Our strategy for transforming Government continues to focus on providing quality services at a national and local level, which are easier to access and designed with the customer's needs at the centre from the beginning. e-Government brings a unique opportunity to break down barriers within Government, so that customers can conduct business or access services without having to worry about which department or agency they need to deal with. Facilitating a mixed economy for the delivery of services could also enable services to be developed that better meet customers' demands.

- **Beyond 2005 – what's next?**

We are making progress towards meeting our target for enabling all Government services to be delivered online by 2005, and so we need to consider the direction service transformation could take beyond 2005.

There are two critical areas in which e-Government provides a more powerful driver for change than most others:

- the internet allows much greater flexibility than traditional approaches to IT, a much greater responsiveness to change, and a much more diverse approach to service delivery;
- putting services online, creates real choice for service users, potentially massively extended by a mixed economy in the supply of public services. Exercising that choice gives powerful signals to service providers which, sometimes for the first time, are the first real expression of market demand.

We can use these factors and the reinforcing effect which each has on the other to develop a framework for radical thought about where Government might be and what it might look like 10 or 15 years from now.

The internet is a different medium from any other, with different strengths and weaknesses. Holding pieces of information in one place and managing it effectively creates huge benefits, but also real fears about privacy risks and "Big Brother". There are ways of addressing those fears, partly through ensuring that information is a property of the subject rather than a property of the process, and partly by allowing people to choose to accept the benefits rather than imposing them – which brings with it the need to make those benefits real, clear and compelling.

OeE will:

- develop a longer term vision (beyond 2005) for e-Government and public services more generally and consider how this might be delivered.

Government will give greater focus to enabling and maximising take-up of the key services people most want to use

Customer-focused Government

We need to make services available that people want to use

We need to make the services people most want to use available as early as possible. Clearly there are benefits from making information about Government services more available – but the potential benefits from e-enabling transactional services are far greater.

To drive this forward Government agreed, as part of the Spending Review 2002, to focus on enabling and maximising take-up of **key services**. Key services are those where the existing volume of business through traditional channels is such that the potential for gaining significant benefits by 2005 – in terms of customer service and efficiency savings – is greatest. Key services include areas such as: services to business; benefits and personal taxation; transport; booking information; education; health; citizen interactions with the justice system; land and property; agriculture and e-democracy. These key services will form a core e-Government Delivery Programme (e-GDP). The e-GDP will aim to ensure that available resources are directed towards those services where successful e-enablement and high take-up will have the greatest impact.

Much of OeE's work is already aimed at mitigating cross-cutting e-Government risks. A significant benefit of the programme management approach we are now taking with the e-GDP, is the ability to conduct a more rounded assessment of the programme risks than would be possible from an individual service perspective. To make sure this happens, OeE will integrate its work more closely into a transparent risk management process for the core e-GDP.

OeE, in partnership with other departments, will:

- develop a core e-Delivery Programme.
- manage cross-cutting e-Government risk, monitor progress and measure impact through the e-Government Delivery Programme Board, chaired by the e-Envoy.

And that includes services delivered by local government

It is crucial to give an equal focus to the delivery of services provided by local government. Local authorities across the country are at the forefront of bringing new forms of service delivery and access to their local communities. The Implementing Electronic Government Statements[28] demonstrated that there is a wide range of local innovation and good practice underpinning the availability of services.

Emerging examples of how local authorities are radically transforming local services include:

- Making services more convenient:
  Manchester City Council tenants can order repairs online at any time of day or night. Smart, illustrated questions let them create a right-first-time entry in the right tradesperson's diary with personalised instructions such as 'knock loudly' or 'use the back door'.
- Making services faster:
  In Tendering District Council in Essex, electronic reporting has speeded up responses to roadside dumping and abandoned vehicles.
- Making services more cost-effective:
  Liverpool City Council has created an IT joint venture with BT to provide electronic based services. The aim is to transform the council's outdated ICT system and processes to provide the city's residents with the double benefit of more accessible and cost effective services.
- Joining related services to improve customer services:
  Lewisham's case based reasoning' systems join up knowledge about services across a range of agencies.
- Improving customer satisfaction:
  Epsom & Ewell's call centre allows the call centre agent to deal with 80% of calls immediately. Lost calls (where callers hang up without a response) have been reduced to less than 5%.
- Promoting economic regeneration:
  Cambridgeshire's contact centre is being located in the north west of the County, to promote job opportunities in an area that has suffered from agricultural decline.
- Promoting social inclusion:
  Northamptonshire's specially designed Gateway highlights sites of interest to refugee communities, including over 10,000 world newspapers, black and ethnic minority sites, country and world Government Gateways. Around 75 refugees use it each day at the Central Library.
- Accessing services in rural areas:
  East Riding of Yorkshire has enhanced access to services by building a network of 16 unmanned customer services centres – CitizenLinks. Each one boasts digital telephony, Axis video cameras, scanners and purpose built controllers all designed and run in-house. Electronic links to CABs, law centres and the police are already in operation.
- Improving staff satisfaction:
  A staff survey confirmed that Salford call centre staff find that focusing on customer service, and building relationships with customers, is more rewarding and less stressful than trying to juggle calls and administrative tasks.

Local authorities across the country are at the forefront of bring new forms of service delivery and access to their local communities

The Government is determined to build on existing successes by continuing to work in partnership with local councils through the Local Government Online Programme (LGOL). Government has increased the LGOL fund from £350m to £511m as a result of the Spending Review 2002, to cover programme expenditure from 2003/04 to 2005/06.

Under this programme more than 100 councils have already participated in 25 Pathfinder projects, which aim to develop products ranging from e-Government approaches to community planning, through comprehensive access strategies and back-office integration, to specific technology applications such as smart cards and digital TV (DTV). Over the coming year the Office for the Deputy Prime Minister (ODPM) will facilitate the rollout of these products to the wider local government community.

The ODPM has also established an £80m programme of LGOL National Projects. These will help drive progress in local government, the wider UK online programme, and in key Government departments. They address two strands:

- Key **technical building blocks** of the e-organisation and the wider national infrastructure;
- **Priority services**, providing ways for joint central-local electronic services to make concrete contributions to delivering seven service priority areas identified by the Central Local Partnership.

Central Local Partnership priorities for local services:

- Raising standards in schools.
- Improving quality of life for children, young people, families at risk and older people.
- Promoting healthier communities.
- Creating safer, stronger communities.
- Transforming local environments.
- Meeting local transport needs.
- Promoting local economic vitality.

The programme aims to ensure that all councils have access to key electronic services and building blocks, without having to build them from scratch.

The ODPM has also announced the funding for 64 partnership projects aimed at helping deliver better services online. The projects will build on the work councils are undertaking to make the most of new technology in providing better quality and more accessible services to people. They include projects which will scope possibilities for:

- providing people in London and in the North East with smart cards which can be used to access and pay for a range of council services;
- setting up region-wide contact and customer relations centres in Northumberland, West Sussex and Herefordshire;
- enabling people in Devon, Northamptonshire and Derbyshire to access information on all local services through one website in their area.

In April 2002 the Government published its plan setting out how it will work with local government to help deliver all their public services online by 2005. e-gov@local: Towards a national strategy for local

e-Government set out the way forward for local e-service delivery, identified building blocks for e-Government and outlined proposed actions at national, regional and local levels. Since the consultation period on e-gov@local closed, the ODPM have been working in partnership with OeE, other Government departments and local government bodies to devise a comprehensive national strategy.

ODPM, in partnership with OeE and central and local government bodies will:

- publish a comprehensive national strategy which:
  - provides a clear framework within which local public service providers and communities can identify, plan and deliver their own strategies;
  - identifies what needs to be in place nationally for such local strategies to flourish;
  - identifies the common priorities for developing e-Government technology or joined-up delivery and allocate resources where necessary;
  - supports the strategy with an implementation plan setting out how work on national projects and infrastructure will support the further transformation of local government services.

Overcoming barriers to use

To ensure widespread take-up, e-Government services need to enjoy the trust and confidence of those they serve. We are addressing this in three ways: gaining people's trust in the way data will be used; ensuring that systems are secure; and addressing the need for public services to authenticate each other and their customers.

Building Trust: Public Sevices Trust Charter

It is essential that customers of electronic public services have confidence in how their personal data are handled. In line with the commitment in the Performance Innovation Unit's (PIU) report e.gov: Electronic Government Services for the 21st Century[29], OeE published a draft e-Trust Charter and supporting guidance in 2001[30].

The Public Services Trust Charter published for public consultation in the PIU report 'Privacy and Data Sharing: The Way Forward for Public Services'[31] subsumes the draft e-Trust Charter and was developed by the PIU in partnership with OeE.

The LCD is now in the lead on the Public Services Trust Charter. Following an initial consultation which closed in July, LCD will launch a detailed second round consultation on the Charter, taking into account feedback from the first consultation. The Charter – and its supporting framework of protocols and service-specific statements – will set out clear and rigourous standards for the use of personal data by the public sector. In doing so, it will help to secure public confidence in the use of that data and so help underpin effective data-sharing.

LCD will:

- launch a second round consultation on the Public Services Trust Charter.

Security

People need to be confident that Government systems are secure before they will consider using them for transactions. As public sector services join up and become interconnected and more services come online, a common approach to security becomes increasingly important – especially since electronic attacks on IT systems are increasingly sophisticated and frequent. At the beginning of 2002, OeE published a set of Security Policy Frameworks for public consultation[32]. These define a common security standard for e-Government service delivery.

OeE will:

- continue to work to define a common security standard for e-Government service delivery:
  - publish the set of Security Policy Frameworks, which define a common security standard for e-Government service delivery;
  - monitor developments in the security area and update the framework as necessary.

Authentication in Government

As Government business relies increasingly on electronic systems, the need for public sector users to authenticate each other will also increase. A number of departments and other public sector bodies are establishing separate internal Public Key Infrastructures (PKIs)[33]. Government has been piloting an 'HMG Root Certificate Authority' to enable different public sector PKIs to be linked into a trust hierarchy. This will enable departments to become part of the same hierarchical trusted infrastructure and allow officials in different parts of the public sector to authenticate each other.

OeE will put this 'Root Certificate Authority' pilot system onto a permanent footing and consider how we might use the infrastructure of the Government Secure Intranet (GSI) to provide an authentication service to those public sector bodies that will not be operating their own PKI.

In the longer term, OeE will investigate how we might extend this trust model so that individuals and business users outside the public sector can authenticate those in the public sector when they are carrying out online transactions with them.

OeE will:

- continue to promote trust in public sector information systems:
  - establish an HMG Root Certificate authority to enable public sector bodies to authenticate each other;
  - investigate the extension of the trust model, to enable businesses and individuals to authenticate Government when transacting online.

Authentication for businesses and people

Some 15% to 20% of e-Government services require strong authentication of the individual or business user. This is either because the service provides sensitive information to the user, and Government must be sure that it is providing that information to the right person; or because the user is entering into a commitment with Government and Government has to be assured of the information provided.

The Government has been working with industry to ensure that both the public and private sectors can benefit from commercial authentication and trust services. However, the market in trust services is growing slowly and the low take-up of these services could be a barrier to the delivery of e-Government. The Government is working to remove this barrier.

OeE is developing two policy frameworks setting out Government's vision and strategy for the use of third party authentication services in transactions between: 'Businesses and Government' and 'Citizens and Government'. These discuss ways in which the Government might encourage the widespread availability and use of authentication services. Consultation on these frameworks will begin by Q4/2002.

OeE will:

- encourage the widespread availability and use of authentication services:
  - undertake consultation on the use of third party authentication services;
  - implement actions arising from this consultation.

Providing access in ways that people want

Equally important as overcoming barriers to change, is to provide services in ways that people want to access them. Delivering services in a multi-channel environment raises new challenges. Strategic planners within public sector organisations face complex decisions regarding the appropriate mix of channel deployment for delivering best value, for both the organisation and customers.

Channels framework

OeE has produced a 'Channels Framework' which provides high level guidance to public sector strategic planners on developing a channels strategy. The framework provides an overview of the current position regarding channels. It emphasises the importance of an appropriate channel mix in considering multiple devices and content issues in delivering e-Government services to different segments of the population. The framework also outlines the role of intermediaries as a channel for delivery and some of the business issues related to this. OeE consulted on the framework in Autumn 2001 and published it in September 2002.

OeE will:

- share leading practice on channel deployment in public sector bodies on Govtalk [www.govtalk.uk].
- reconstitute the working group created for the development of the Channels Framework to monitor and oversee co-ordination between channel strategies.
- identify opportunities for channel co-operation with other public sector organisations using the working group as a channel for communication.
- develop content guidelines to assist organisations with issues of formatting content on devices.

Case Study

Digital Television

In April 2002 OeE launched the UK online Interactive DTV service on the BskyB and ITV Active terrestial and satellite platforms. The service generates around 20,000 visitors a month. We are building on this early success, achieved without advertising. We are working to extend the scope of the service and aim to be the single point of access, via DTV, for central and local government information.

The service features information on topical events or themes, and the content is frequently updated. There is also a searchable database where viewers can find their nearest free or low cost Internet access point, and a facility for email feedback. In the future, it will act as the access point to the DTV services of all central and local government organisations. Through these services, users will eventually get more personalised and regionalised offerings, and will ultimately be able to undertake transactions.

Almost everyone in the UK has a TV set. Interactive and internet services on DTV present us with a tremendous opportunity to overcome the digital divide and give citizens access to the emerging knowledge economy from the comfort of their homes in a socially inclusive way. But if this exciting and strategic medium is to deliver its full promise, it will require Government (central and local), industry, media and other leading bodies to work in close partnership following a co-ordinated approach.

Case Study

UK online interactive – i-Suffolk

Suffolk became the first county in the UK to be accessed on the Sky platform with Somerset to follow. The service, launched on 5 July, is a partnership between Suffolk County Council, Ipswich Borough Council and Babergh District Council. Future plans will look to include all of the county's local authorities, the police and the NHS.

The system includes information on the full range of services from all three Councils, which searches out where you live and gives you information about your own local area. You can email any of the Councils on the system through the "tell us about" button, enabling the viewer to send an email requesting more information, or to make a suggestion or complaint. Eventually, viewers will be able to renew library books through i-Suffolk and even pay their council tax.

"Our partnership with UK online interactive has been highly productive. They facilitated our entry onto the Sky platform which will result in enhanced services for the public" Nigel Blake –i-Suffolk

OeE has published a 'DTV Policy Framework'[34] consultation which outlines the importance of this channel and the actions required across Government to use DTV as a key medium for delivery of public services. The framework has been developed in the context of the wider Digital Television Action Plan, developed by the DTI and the Department for Culture Media and Sport (DCMS), with public and private sector stakeholders. The Action Plan sets out the work required before the UK can fully switch over to digital transmission.

UK online interactive via DTV

OeE will:

- promote awareness of the benefits that delivery of e-Government services over DTV can bring.
- publicly consult on the DTV policy framework.
- continue to develop and deliver a citizens' portal on DTV (UK online interactive), providing a one-stop-shop for Government services.

Smart Cards

Case Study

Connexions Card

DfES is delivering the Connexions Card via a public-private partnership. All young people aged 16 to 19 are eligible to receive a card. It has been available across England since September 2002. DfES expects that 1.6 million young people will eventually hold the card. The Connexions Card rewards young people for participating in post 16 learning and development. Young people can build up points though attendance at a place of learning, or by achieving personal goals. The points can be redeemed through the Connexions card website, for goods, services or unique experiences such as work experience in a London company, driving a tank, or a behind-the-scenes visit to a league football club.

The smart card infrastructure provides an electronic registration system for learning centres should they require it. The card also has the capacity to carry additional applications, like secure access, cashless catering, information transfer and automatic enrolment.

Around 1.7 billion smart cards are currently in use across the globe. They are potentially a key enabler in encouraging access to both Government services and e-commerce – whether they carry only one application or several. There is a significant level of activity across the public sector in relation to smart card trials and rollouts. But it is fragmented and faces many common challenges and barriers.

This fragmentation limits the ability of smart cards to capitalise on a common vision or integrated service offerings. Likewise they are limited in their potential for sharing infrastructure or for driving standards, which promote interoperability. Clearly there is a need for common standards for smart cards so that they can be used to enable online transactions.

OeE will:

- drive forward a smart card programme to improve the efficiency and effectiveness of smart card schemes with the public sector, by addressing:
  - the promotion of interoperability through standards;
  - development of wider business case(s) for the sharing of smart cards and associated infrastructure; and mechanisms to identify and share best practice in the development, rollout and management of smart card schemes across the public sector.

The e-Government programme is also about the process of Government itself

e-Democracy and Public Participation

Driving forward citizen participation in democracy[35] is one of the commitments to getting Government online – and is an area where the UK is a leader in our international benchmarking group. Through the use of ICT Government aims to increase citizens'

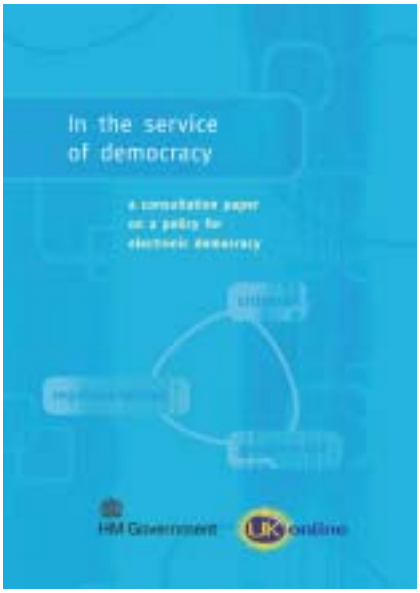
opportunities to participate in the democratic process – and make it easier for Government, representatives and political parties to seek the views, knowledge and experience of people.

OeE, with the ODPM and the LCD, is taking the lead in developing the UK Government's policy for e-democracy. This is based on two separate but interdependent tracks: electronic participation (e-participation); and electronic voting (e-voting). The two tracks are underpinned by five key principles: inclusion; openness; security and privacy; responsiveness; and deliberation.

On 16 July the Government published its proposed policy on e-democracy, entitled In the Service of Democracy[36]. The Government will publish its response to the consultation in Spring 2003.

e-Participation

Increased public participation should lead to better policy making – and to more customer-focused public services. Technology is already helping people and organisations to participate more effectively. The objectives of the Government's policy are to facilitate, broaden and deepen participation in the democratic process.



The e-democracy consultation

Facilitating participation means making it easier for citizens to exercise their democratic rights. Broadening means bringing a wider range of people into the democratic process. New technology can make it easier for people to access public information, follow the political process, discuss and form groups, get engaged in policy formation, scrutinise Government and vote in elections. We want to give people more flexible ways to participate which reflect the variety and complexity of modern lifestyles.

e-democracy policy is underpinned by five principles: inclusion, openness, security and privacy, responsiveness and deliberation

Deepening participation means going beyond a single exchange to a more sustained, in-depth interaction. New technology can help to build strong and active relationships between citizens and all levels of representative institutions, between citizens and Government, citizens and political parties and between groups of citizens. These relationships need to be based on dialogue and consultation. The Government and representatives must seek to understand people's needs, values and experiences better. And citizens should seek to contribute actively with their knowledge.

CitizenSpace on ukonline.gov.uk [www.ukonline.gov.uk] now offers better opportunities for democratic participation. During the e-democracy consultation an online discussion group, hosted on CitizenSpace, played a major role. CitizenSpace is still evolving and its final form – as a place to encourage online democratic participation and a "first-stop" for Government consultations – will reflect the comments and responses received as a result of the e-democracy consultation.

OeE is looking at whether:

- 100% of central Government public consultations should be accessible via CitizenSpace on ukonline.gov.uk;
- all consultations on Green or White Papers should include a moderated public discussion forum, hosted on CitizenSpace;

The objectives of e-democracy are to facilitate, broaden and deepen participation in the democratic process

- feedback reports from all public consultations should be published online in a timely and transparent way;
- all central Government public consultations should encompass strategies on using online consultations to engage key stakeholders, and especially 'hard-to-reach groups', in the process.

Following the Government's response to the consultation on e-democracy, OeE will consider:

- how to integrate electronic participation with current approaches to policy-making and consultation;
- which methods of e-participation work best for different purposes;
- whether to establish common infrastructure and tools for e-participation through all levels of Government;
- the financial and human resource needs;
- appropriate leadership and guidance to effectively integrate e-participation in the policy-making process.

OeE will:

- develop an e-democracy charter, taking into account any comments received via the e-democracy consultation, which will clearly set out the basis on which a Government e-participation process is taking place.

e-Voting

Elections must be accessible to all and must suit modern lifestyles and habits. They should encourage rather than discourage participation. They should catch the imagination and seek to engage citizens.

Changing the voting system will not in itself address the issue of how to engage people politically. Low levels of voter participation are a serious matter and go to the heart of our democratic system. It is right that Government looks at making the electoral system easier to use and more relevant to today's society.

In other parts of the world, e-voting has been successfully used on a large scale: in the general elections held in Brazil in October, 115 million voters cast their votes electronically at electronic ballot boxes, for the 18,600 candidates that were standing for 1,600 elective post around the country. Only around 1.6% of the 300,000 or so electronic ballot boxes proved defective. Most of these were replaced in time for the vote. Voters could watch the count in real time by downloading a special programme from the Brazilian Federal Court's website (www.tse.gov.br).

In the 2002 general elections in the Republic of Ireland up to a quarter of a million voters in three constituencies were able to cast their votes electronically. Voting machines were placed in polling stations and, after eligibility had been checked against the electoral roll in the usual way, voter were allowed to vote at machines which showed the candidates' names and photographs. The system was being piloted in advance of its widespread use in the 2004 local elections.

The Government aims to set in train a practical and achievable programme for the implementation of e-voting. In partnership with English and Welsh local authorities and the Electoral Commission, the Government is promoting a programme of piloting innovations at local elections, particularly involving e-voting and all-postal voting. This will be crucial in building public confidence and testing the robustness of the new facilities.

The Spending Review White Paper[37] announced the allocation of £10m per year to e-voting, as part of the LGOL fund allocated to the ODPM. It will support the e-voting programme outlined in the Service of Democracy including more experiments in e-voting based on local government elections. A programme of work to achieve

successful implementation of e-voting is already under way to ensure that robust systems can be in place for an e-enabled General Election after 2006. This will need extensive piloting and an incremental roll-out, together with a programme of research.

At the May 2002 local elections there were 30 such pilots. 16 local authorities undertook electoral pilots with e-activity and 13 other authorities tried out other innovations such as all postal ballots. Of the 16 e-pilots, nine offered multi-channel and electronic voting, which included e-counting. A further seven offered e-counting together with traditional voting or all-postal ballots. As a result of piloting e-voting and counting, the election result in St Albans was announced just four minutes after the polls closed.

The Electoral Commission evaluated these pilots and published their reports on 1st August. At the same time, the Commission published and presented to the Deputy Prime Minister an overview report[38], giving a strategic evaluation of the whole 2002 pilot programme. This report concluded that:

- the pilots successfully increased the opportunity for voting (for example over 10% of the electorate – 4,300 people – in Swindon voted via the Council's website and most found it easy and convenient);
- they secured significant increases in turnout in some areas (particularly with all-postal voting);
- the process was well managed by local authorities and there were no significant technical problems;
- there was no evidence that fears of fraud were realised in practice.

The Commission's report also made a number of recommendations for the future pilot programme in the light of experience.

At the end of September, OeE, with the Electoral Commission, the Local Government Association and the ODPM, launched their prospectus inviting local authorities to participate in the 2003 electoral pilot scheme. The main focus of the pilot programme is to extend the pilot schemes to authority-wide level, to look at schemes that have not been piloted, or where specific issues have not yet been tested fully. In particular, it encourages councils to focus on one of the following:

- voting through electronic media;
- e-counting (as part of an e-enabled package);
- all-postal voting (especially incorporating proposals for testing alternative fraud and security arrangements);
- other innovative procedures and ideas about the electoral process.

ODPM will:

- procure the e-voting facilities and services to support further local election pilot schemes.

The election result in St Albans was announced just four minutes after the polls closed, as a result of e-voting and counting at the May 2002 local elections

More Efficient Government

Electronic service delivery (ESD) has the potential to make Government itself more efficient and so allow resources to be re-allocated. It can also offer very significant improvements in customer experience, leading to higher levels of take-up.

Transactional services can be made more efficient through investment in IT: for example the use of intelligent online forms in preference to traditional paper forms. Such 'intelligent front-ends' can reduce the inefficiencies which arise from incomplete or incorrect forms. When required fields are left blank, users can be automatically prompted to fill in the necessary section, and links to guidance on how to complete the form properly can be provided. This potentially improves the accuracy of data received and reduces the cost of manually contacting people for further details. But to be successful, these systems must be highly usable, with a design based on detailed customer research.

Providing an electronic service alongside traditional services can, potentially, double the cost of delivering a service. So it is important that the ESD forms a core part of the business change process. In this way, although there may be short term additional costs, we will realise the potential to make back-end process more efficient, even if services are delivered using traditional channels. Additionally, as users switch to online access, departments may be able to make savings from the lower volume of transactions through conventional channels. In time, it may be possible to switch some of these off provided that this does not disadvantage the service user.

To ensure the benefits of the e-Government programme are maximised – and in line with the Public Accounts Committee's conclusion in its report Improving Public Services Through e-Government, OeE will work with the Treasury to consider developing guidance addressing the appraisal of risks involved in realising the benefits from e-delivery projects, taking into account the take-up of e-services and the potential to divert resources from traditional channels.

OeE and the Treasury will:

- consider the case for developing guidance, addressing the appraisal of risks involved in realising the benefits from e-delivery projects and potential to divert resources from traditional channels.

Ensuring high levels of take-up

Once the services that people want to use are available, high levels of take-up will be a key measure of the success of the services – and essential to realise efficiency gains. Successful e-services are already achieving high levels of take-up. For example, NHS Direct receives around 100,000 calls a week to the telephone helpline and half a million visits to NHS Direct Online each month. And during 2001/02 Ufi/learndirect [www.learndirect.co.uk] reached over 246,000 learners who, between them, took up more than 570,000 courses.

Case Study

learndirect

Jenny Fu needed to improve her computing skills when she got her job as a clerical technician in the architects department at a local council.

"I felt I lacked the necessary computer skills for my new job, so I enrolled with learndirect just after I started. I enjoyed learning through learndirect as it allowed me to achieve the standard I needed in a short space of time."

People will only switch to using online services if they can see a real advantage to themselves. The attraction of e-Government will vary from service to service and between groups of customers. But in practice, this will require that services are more convenient, easier and quicker to access – as well as being more personalised around the customer than traditional channels.

To identify the topics, services and sites which interest people most, OeE has started to collect data on levels of use for central Government websites. As we collect more data, we will be able to identify trends and inform work to develop the services which should attract high levels of use.

The new Cabinet Office Public Service Agreement includes the target to "ensure departments meet the Prime Minister's targets for electronic service delivery by Government: 100% capability by 2005, with key services achieving high levels of use". To achieve this OeE will work with delivery organisations to develop strategies for ensuring maximum take-up. These will be firmly based on a clear understanding of the characteristics, needs and interests of service users – and on ensuring that services are developed in ways that directly address these needs.

OeE will:

- work with delivery organisations to develop evidence based take-up strategies for key services.

- **A mixed economy for Government**

A key part of our e-Government strategy is to open the market to private and public sector intermediaries, so facilitating a mixed economy for the supply of public services. Allowing and incentivising intermediaries to engage with public services on behalf of the customer will foster innovation, accelerate the delivery and take-up of e-enabled public services. For the mixed economy to succeed we need to support a marketplace where Government can come together with partners to deliver e-Government services that better meet the customers' demands.

The aim is that in five years, there will be a fully developed mixed economy in the supply of public services, where consumers can engage with intermediaries from the public, private and voluntary sectors to use public services in the manner that suits them.

As a result of the Treasury's cross-cutting review of the role of the voluntary sector in delivering public services, OeE and the Home Office Active Community Unit, in partnership with the rest of Government and the voluntary and community sector (VCS), will work to draw together various ICT initiatives for the VCS into a coherent ICT investment strategy. This strategy will include resources and an implementation plan and be completed by July 2003. To clarify sources of funding, the Home Office will set up a portal to provide a single point of information about Government support available to the VCS.

We are currently taking forward the strategy to open the Government market by focusing on these crucial strands:

- **Principles of intermediary involvement**. OeE is producing a policy framework for intermediary engagement, which outlines the 'rules and principles' for Government to work with intermediaries and vice versa. This will detail principles such as rights and obligations of intermediary and Government, ESD standards and code of conduct.
- **Facilitation**. OeE is setting up an e-venturing unit to attract ideas and innovation for Government service transformation and proposals for intermediary engagements. It will be accessible via the OeE website [www.e-envoy.gov.uk] and directly www.e-venturing.gov.uk.

Customers engaging with intermediaries from the public, private and voluntary sectors to use public services in ways which suit them

OeE will:

- facilitate a mixed economy for the delivery of public services:
  - publish a clear Policy Framework for intermediary engagement in 2003, which outlines the 'rules and principles' for Government to work with intermediaries and vice versa;
  - set up an e-venturing unit to attract ideas and innovation for Government service transformation and proposals for intermediary engagement.

The Home Office and OeE will:

- develop an ICT investment strategy for the VCS.

The Home Office will:

- establish a portal to provide comprehensive interactive information on Government funding for the VCS to be completed by March 2004.

e-GIF sets out standards to enable the seamless flow of information across the public sector

- **e-procurement**

Over the last two years the OGC has investigated the contribution electronic procurement can make to deliver better value from Government's procurement and purchasing activities. This included ground breaking research work through a series of live pilot projects run in Government departments and managing the roll out of the Government Procurement Card (GPC)[39] across central Government.

All of the pilot projects were successful and a report that converts learning into guidance (eProcurement: Cutting Through the Hype) is available on the OGC website[40]. At the same time the Master Agreement with Visa for the provision of the GPC has come to the end of its term, exceeding all expectations in terms of the value of the business conducted using the card (some £340m with two month's figures still to report, while the original projection was £300m). OGC is closing negotiations for the provision of card services to central and wider Government for the next five to seven years.

Following completion of the e-Procurement pilots, OGC is working with departments to develop a strategy for the adoption of e-Procurement across Government that covers the period to March 2006. OGC will publish this in the next few months.

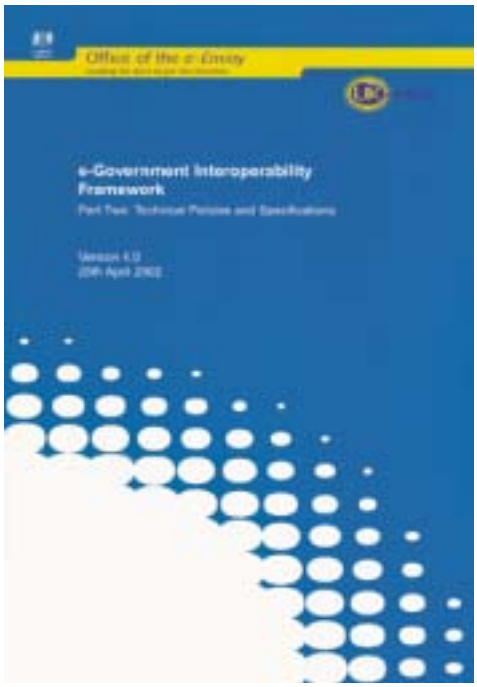
Setting common standards to enable joined up delivery

Common standards between departments are a key element in the e-Government delivery programme. The UK was one of the first countries to publish an interoperability framework to facilitate adoption of common standards – a lead which other countries are now following.

- **e-Gif**

The 'e-Government Interoperability Framework' (e-GIF part 1 and part 2) is a mandatory policy framework. It sets out policies and standards for connectivity and the seamless flow of information across the public sector. Since its first publication in October 2000 it has become a benchmark policy on IT standards and is being implemented in all departments and local authorities. OeE updates the e-GIF every six months. Version 4 incorporated the Metadata Framework (e-GMF), dealing with tagging and categorisation of information.

Technical and semantic interoperability are essential for the public sector to provide citizen-centric services and information. Key policies of the e-GIF are the adoption of internet and web standards, with emphasis on the use of XML for data integration, and developing and providing XML Schemas for Government processes that can be reused across the public sector. An essential element of developing XML is the agreement on definitions of data. A Government Data Standards Catalogue has been developed as part of the e-GIF. These agreed definitions are now being used in many projects, including the National Land & Property Gazetteer. (NLPG). The e-GIF also describes well-established management and communication processes, which are implemented through the GovTalk website [www.govtalk.gov.uk].



e-GIF standards

To help public sector bodies and IT suppliers with the implementation of the e-GIF, OeE is arranging for an Advisory Service to answer questions, provide advice and guidance and a self-assessment tool that will enable people to establish whether they are complying with the e-GIF. This service will be operated by National Computing Centre (NCC) and will start during Q4 2002.

The EC's Interchange of Data between Administrations (IDA) programme is working to establish interoperability and metadata policies for all Member States. OeE is closely involved in those projects and will continue to provide the UK's input into the development of these policies.

OeE will:

- set standards and provide coherence across Government systems:
  - update the e-GIF document on a six-monthly basis. Next publication will be in Q4/2002;
  - continue to position the e-GIF framework for adoption by other countries, but particularly drive its adoption in Europe;
  - continue to develop and update in line with changes in information management practices and ICT developments.

- **Open Source**

OeE published a new policy on the use of Open Source Software (OSS) in Government in July, in response to the rise to prominence of OSS with its significant market share in parts of the software infrastructure market. The policy also responds to the EC's eEurope – An Information Society for all initiative [http://europa.eu.int/index_en.htm] which supports the use of OSS in the public sector. OeE and OGC developed the policy jointly, derived from a report by QuinetiQ.

The policy supports a 'level playing field' in OSS and proprietary software procurement and seeks to avoid 'lock-in' to proprietary IT products and services. Government will also consider obtaining full rights to bespoke and customised software code where this achieves best value for money and will explore further the possibilities of using OSS as the default exploitation route for Government funded R&D software.

OGC have reviewed their procurement guidelines and made advice available on their website [www.ogc.gov.uk] on how to assess the merits of OSS v propriety solutions in procurements, on areas of the software infrastucture and application marketplace where OSS has strengths and weaknesses.

A UK Government Open Source Software Special Interest Group has been established, jointly chaired by OeE and OGC.

OeE will:

- implement the 'Next Steps' of the Open Source Software policy:
  - update their Procurement Guidelines to reflect Open Source policy;
  - make advice available to all those involved in procurement exercises on areas of the software infrastructure and application marketplace where OSS has strengths and weaknesses;
  - make advice available to all those involved in procurement exercises on how to assess the merits of OSS v proprietary solutions in procurements;
  - OeE and DTI will discuss with academic research institutions the possibilities of future R&D work;
  - OGC with OeE will commission case studies on the potential uses of OSS in Government.

Putting the key infrastructure in place

The e-Government infrastructure in the UK compares well internationally. Common infrastructure web products and services across Government are a crucial element in providing efficient, joined-up services – and avoid duplicating development costs. Over the past year, OeE has successfully delivered several high profile projects.

ukonline.gov.uk

The ukonline.gov.uk portal, gives access to all UK Government information and services online using a single web address. It is the easiest place on the web to find in-depth access to UK Government information and services online. With the Government Gateway, the portal provides a quick and easy means of carrying out transactions with Government via the internet. The priority in developing the site was to ensure a friendly and accessible experience, both for the novice and the frequent internet user, and content is organised around the needs of the citizen.

Citizen feedback during the first year of implementation has informed a significant improvement of ukonline.gov.uk . In January 2002, OeE relaunched the portal with a new look and feel. The new portal is more intuitive, easier to navigate and easier to search. It is also has a more scaleable and reliable infrastructure.

The ukonline.gov.uk portal

OeE updates the content daily using a sophisticated content management system with customised content for region and Welsh language preferences. As a result, the portal's content is more timely, up-to-date and relevant for citizens interested in the day to day concerns of central and local Government, as well as regional and national areas of the UK.

The portal also has greatly enhanced accessibility with a clearer design and colour scheme and an improved 'Easy Access' area. This provides access to ukonline.gov.uk for those who are partially sighted, blind or have low reading skills. The site was awarded the Royal National Institute for the Blind's (RNIB's) prestigious 'See it right' logo in February 2002. This structure also works particularly well with alternative digital access media, allowing viewing of the site on Internet-enabled Personal Digital Assistants (PDAs).

Since the relaunch, users have risen sevenfold to 320,000 a month viewing more than 3 million pages.

Earlier this year, OeE ran a ukonline.gov.uk marketing campaign, to raise awareness of the portal and educate customers about the services provided by Government. This included an online advertising campaign and the submission of keywords to search engines. The online advertising campaign delivered 113,657 clicks to the portal; the submission to search engines delivered 150,675 clicks to the portal.

Feedback to ukonline.gov.uk

"I have just been browsing though ukonline.gov.uk and would like to congratulate you on producing a website which is so easy to navigate for blind people using screen readers."

"Thanks for this great and easy to use site"

"Your website has become my default entry point for Government information – it provides clarity and simplicity."

ukonline.gov.uk marketing campaign – Examples of ads

The Government Gateway hides the complexity of dealing with Government and provides a joined-up user experience

Access for all

The Government is working on a programme to add new media and channels to ukonline.gov.uk to ensure universal and inclusive access for all citizens. As part of its relaunch, OeE built ukonline.gov. to be available on a variety of platforms – and has already started work with DTV, instant messaging providers, WAP phones and PDAs.

From 1 July 2002, the UK online content has been available on MSN Instant Messenger where a tab provides a changing selection of thumbed links to Government services online.

The current site is just the beginning. The way people use and the feedback they give is already driving how the site develops and improves. OeE plan to add new content, improved search capabilities and further transactional services over time.

One of OeE's main projects this year is to develop a pan-Government toolbar. This will be a navigation toolbar to be used across all Government websites to replace the current version. It will incorporate some significant developments:

- a pan-Government search facility. The UK online search engine will be immediately accessible from the toolbar;
- user-centred design. The toolbar is designed to work in conjunction with department websites to create a well-balanced user experience.

OeE will:
- develop a pan-Government toolbar.

The Government Gateway

The Government Gateway is a key component of e-Government infrastructure. It allows secure authenticated transactions and joined-up Government services to take place via the web. The Gateway is an authentication and routing engine built on open standards, allowing different systems in different Government departments to communicate with the Gateway and with each other. This means that in future, electronic transactions involving many different departments at once will be possible, ensuring a truly joined-up electronic public service.

OeE launched the Government Gateway in January 2001 and it has provided enrolment and transaction handling for a number of departments. Once registered with the Gateway, citizens and businesses can enrol for services with a single identification credential: a user ID and password, or a digital certificate. This hides the complexity of dealing with Government and provides a joined-up user experience.

At the beginning of July 2002, OeE upgraded the Gateway to improve functionality which allows:

- services from local authorities and, potentially, links to private sector partners such as pension providers. These services will be enabled using the new Gateway 'Hub and Spoke' model. As an important step towards achieving our 2005 objectives, all departments and Government organisations outside of the GSI will now have access to the Gateway;
- simpler registration and enrolment by presenting the Gateway screens directly into portals and applications;
- pre-registration of citizens and businesses to speed the process of dealing with Government online;
- provision of services where the citizen or business is dealing with Government for the first time, such as VAT registration or benefit applications;
- redesigned screens and better help pages.

Over the next year, OeE will focus on completing the Gateway's middleware components. We are investigating ways of

notifying citizens of important central and local Government information via email and SMS. We are also looking at how to improve the way documents and information are submitted to Government.

Once the core Gateway components are complete, the roll-out of Government services online will gain momentum. Over the next 12 months OeE will add further transactions, additional departments and enriched functionality. We are discussing future transactions with departments currently using the Gateway and with various organisations in central and local Government. The list of potential stakeholders is growing quickly and includes:

- The Department for Work and Pensions (DWP);
- Northern Ireland Land Registry;
- Central Sorting Office for Stakeholder Pensions;
- Local authorities;
- The Scottish Executive for Environment and Rural Affairs.

OeE will:

- build a notification engine for the Government Gateway.
- build a way of logging into the Government Gateway with mobile phones.
- procure and build a full secure mail system for the Government Gateway.
- continue to work with digital certificate providers to increase the number of Gateway compatible certificates.

Gateway Partnerlink

The Partnerlink (www.govtalk.gov.uk/gateway_partnerlink) initiative focuses on forming partnerships with commercial vendors interested in facilitating transaction delivery through the Government Gateway. These may include software applications for routine forms such as tax assessment, or hardware devices that allow data exchange and conversion with legacy systems. Partnerships with the developer community will help to increase the choice of front and back-end Gateway-compatible products for Government departments, organisations and businesses wanting to provide Gateway-enabled services. These will increase points of entry for citizens accessing these services, help drive take-up and provide an improved and more tailored user experience.

Partnerlink engages partners via three main routes:

- the Government Gateway Partnerlink website;
- events, workshops, seminars. More than 85 technology companies attended the first seminar in July 2002;
- project specific engagement.

Delivering on the Promise – DotP

Over the past five years, individual Government departments have invested in building the infrastructure to support the electronic delivery of their information and services. As the internet has evolved and become an increasingly important channel for Government, departments have been wrestling with the same problems: managing customers, content, new channels and emerging technologies. Entire infrastructures, both technical as well as people and processes, have evolved – not always with consideration of the customer experience.

As we move towards 2005, the need to reduce this duplication of internet technology spend and resources across Government becomes more acute. OeE is building a central infrastructure designed to host multiple Government websites. This is known as DotP, Delivering on the Promise. DotP, with the Government Gateway, will lead the way in delivering a central common infrastructure, bringing economies of scale benefits to Government departments through a modular ‘build-once, use-many’

DotP will enable Departments to concentrate on delivering services – not on technology

architecture. The Treasury endorses this approach by requiring Departments to prove that equivalent market solutions are better value than the DotP and Gateway offering, before releasing funds.

DotP will enable Government departments to concentrate on the delivery of compelling services, rather than the underlying technology. It will deliver benefits such as decreased time to market, economies of scale and compliance with Government standards – as well as full content management and hosting of departments' websites. OeE has researched customer needs, defining the types of interaction citizens require of Government – and is using technologies capable of delivering Government information and services effectively.

OeE is working in partnership with major central departments. We envisage that significant numbers of the central Government departments will use the DotP platform. As we achieve a critical mass of content the value of this service will become significantly greater. For example we can realise opportunities for content syndication and cross-site content sharing and increase economies of scale further. This service will also be available to local authorities and agencies.

Government Secure Intranet (GSI)

The GSI underpins e-Government by providing secure, resilient network services. It has some 200,000 end users and handles in the region of one million emails every working day. Increasingly, GSI supports shared systems for internal and external service delivery. For example, the Treasury recently led a shared procurement for payroll services, provided via a link to the GSI connection to access the system. The GSI is now interconnected to the European Union Extranet, TESTA II, which supports international co-operation on trade, consumer protection and other services. A single link to TESTA will replace multiple leased line connections.

OGC leads the GSI succession project and recently launched the procurement exercise. It is expected that contracts for the new GSI arrangement will be put in place by the middle of 2003.

OGC will:

- procure the next generation of GSI services.

Knowledge Network

The Knowledge Network (KN) encourages a new way of working for Government. The key aim for the KN is to help the Civil Service to access, harness and deploy its collective knowledge, talents and expertise electronically. KN enables Government officials based in the UK to share information and communicate with other Government officials in over 200 countries around the world.

Case Study

Knowledge Network case study – the Legal Online Information System (LION)
The Legal Information Online system (LION) has been a notable success for the Knowledge Network this year. This intranet for the Government legal service provides a number of standard intranet facilities to 2,500 lawyers in 19 departments.

The system provides a single working environment for Government lawyers where they can easily find all the resources they need to do their jobs. It enables easy access to external electronic legal resources – and means that people can get material much more quickly.

As well as standard intranet facilities the system provides a number of "Action Zones". These are community spaces where specialist lawyers publish information and knowledge to the rest of the legal community. This is achieved through a flexible content management system with 'remote' authoring of material. It allows production of material at the author's desk and provides business process workflow facilities to control the publishing of this information to the wider legal community.

The Action Zones cover such areas of law as Human Rights, e-Law, Data Protection and Secondary Legislation. The zones contain information such as legal news, advice and guidance, training material and access to document and internet based resources. More Action Zones are being commissioned as the system embeds itself in the working practice of the legal community.

The users of LION consider that the system has been of significant benefit to them, providing an easy way to share information across departmental boundaries.

The KN uses core Knowledge Management techniques and advises peers and others throughout the world on good practice in this field.

The KN will continue its work to support collaborative working across Government in the areas of:

- Communities of Interest – drawing together specialist groups and common business processes, to maximise the potential for collaborative working between officials in multiple departments.
- Corporate Business Processes – using electronic delivery and reporting mechanisms to increase the speed and accuracy of both reporting and information processing in Government.
- Core Business for delivery departments and their regional organisations – providing facilities which will enable departments to deliver information about the impact of policies at a local level.

It will also continue its work in developing policy in the areas of:

- Training and Change Management to support business change.
- Together with the Public Records Office, support the development of the strategy for Electronic Records Management.

Underpinning all these programmes is the KN infrastructure, which is a full accredited facility for information sharing and collaborative working across Government.

The Knowledge Network allows UK officials to share information with their counterparts in over 200 countries around the world

OeE will:

- continue to develop cross-Government knowledge management systems.

Data Centre Hosting Project

OeE is seeking to procure a managed data centre service to host the Government Gateway, Knowledge Network and the UK online portal. Currently, these initiatives are situated in different data centres, in different locations, managed by different vendors. As these key parts of the Critical National Infrastructure (CNI) grow, disparate hosting environments will not provide the economies of scale, efficiency savings or security resilience model that we need.

The Data Centre Procurement will provide one vendor to manage a range of basic, fully managed and enhanced hosting services for the core e-Government infrastructure. High levels of security and availability, including disaster recovery, will also be required. These services could be available to wider Government once the data centre is fully operational.

OeE plans to award a contract in March 2003 and envisage an implementation period of three to six months, with a go live date in mid 2003.

OeE will:

- award a contract for the Data Centre Hosting project in March 2003; for a go-live date of mid-2003.

4 People

Summary

Our goal is to ensure that everyone who wants it has access to the internet by 2005.

The Government will:

- raise awareness of the internet by:
  – informing citizens about the services they can access and the places they can do this.
- promote affordable internet access at home, at work, on the move and in the community by;
  – supporting a range of channels including the personal computer (PC), DTV, and public internet access points (PIAPs).
- improve ICT skills by:
  – providing opportunities for citizens to acquire the appropriate skills and the confidence to use the internet.
- build trust in the internet by:
  – advising citizens about how best to use the internet safely and by building a coherent regulatory framework to increase consumer confidence.

Introduction

We are committed to ensuring that everyone who wants it has access to the internet by 2005.

Since September 2000 we have set up a network of over 6,000 UK online centres to provide free or low cost access in the community.

The market has – and will continue to be – the primary driver of internet access. At present, 45% of UK households are online and 47% of UK adults are regular internet users[41]. However, take-up amongst the most disadvantaged groups in society – those on low incomes, the elderly and people with disabilities – is lower.

Strategy

Our strategy focuses on encouraging take-up amongst 'digitally divided' groups by overcoming four key barriers to internet use:

Motivation – encouraging people to want to use the internet by increasing awareness about the benefits of online services, where they can be accessed and sources of support.

Access – investing in a network of public internet access points for those who cannot afford or do not have home or work internet connections and promoting access via a variety of different channels.

Skills – embedding ICT skills in schools, further and higher education, and lifelong learning.

Trust – advising citizens about safe internet use and supporting a light-touch, flexible regulatory framework.

Where does the UK stand?

Progress Since Last Year

- **The UK internet population has grown over the past year**. 22 million adults in Great Britain now use the internet regularly – an increase of over 3 million since last year.
- **The large gap between internet and PC penetration has closed** to around 11 percentage points from 23 percentage points, four years ago.
- **45% of households are now online** compared to 38% one year ago.
- **Regional and gender divides have narrowed** and the UK's divide by income is generally smaller than in other nations.
- **People are spending longer online** and are undertaking increasingly sophisticated activities with more people buying and banking online.
- **Growth in high-speed broadband subscribers has been rapid** over the period following the fall in ADSL prices in April.

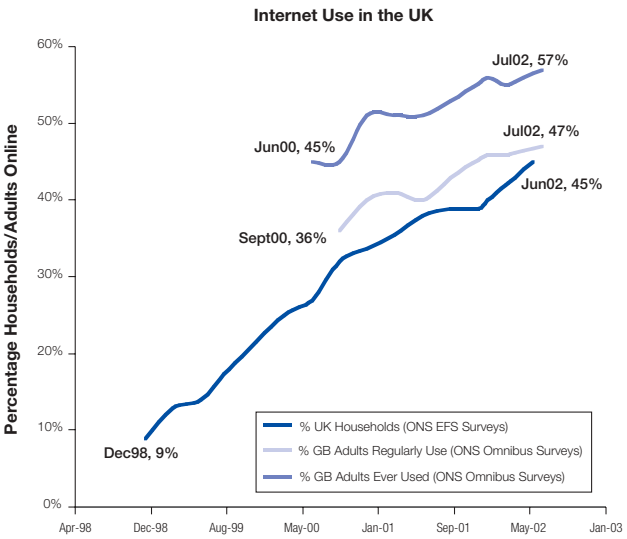
Figure 8 illustrates the increase in household and adult users since 1998. The picture is one of a broadly positive long-term trend with short-term seasonal dips in growth. Household internet growth has been particularly encouraging over the last two quarters increasing six percentage points.

Although long-term growth remains positive, research shows that some people have entrenched negative views about the internet. About half of all adults who have yet to access the internet express a general lack of interest in doing so. Similarly, a third of the total adult population consider it very unlikely that they will access the internet in the next year. Continued efforts to raise awareness of the benefits of the internet and increase the interest and motivation to use it will be required if past growth rates are to be extended into the future.

Aside from attitudes, access is also an important policy development area. Currently, the dominant form of access in households is the PC with only 2% of households exclusively using other forms of access. Growth in internet subscribers has, as would be expected, come from those households already owning PCs. However, to ensure that household access continues to grow we need to maintain our support for other forms of access such as DTV, which act to broaden the reach of the internet and e-Government services. The percentage of adults accessing the internet who exclusively use community points of access[42] has increased in line with overall internet access figures and currently stands at 10% of the internet population. PIAPs, including UK online centres, are clearly providing a valuable safety net for a large number of users.

There remain significant differences between internet users and non-users, particularly with respect to income, age and geography. For example there is currently a gap of 69 percentage points between those online in the highest income band compared to those in the lowest band. As

Figure 8: Internet adoption – adults and households – source ONS



illustrated by Figure 9[43], this gap has widened marginally over the last year as penetration among high earners is reaching saturation. The age profile of internet users also differs greatly from those offline. Only 14% of people aged 65 and over currently use the internet compared to 89% of those aged 16-24.

Figure 9: Internet access compared to income[43]

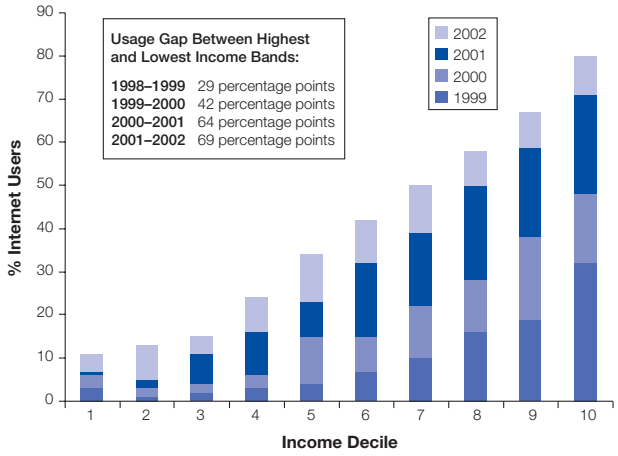
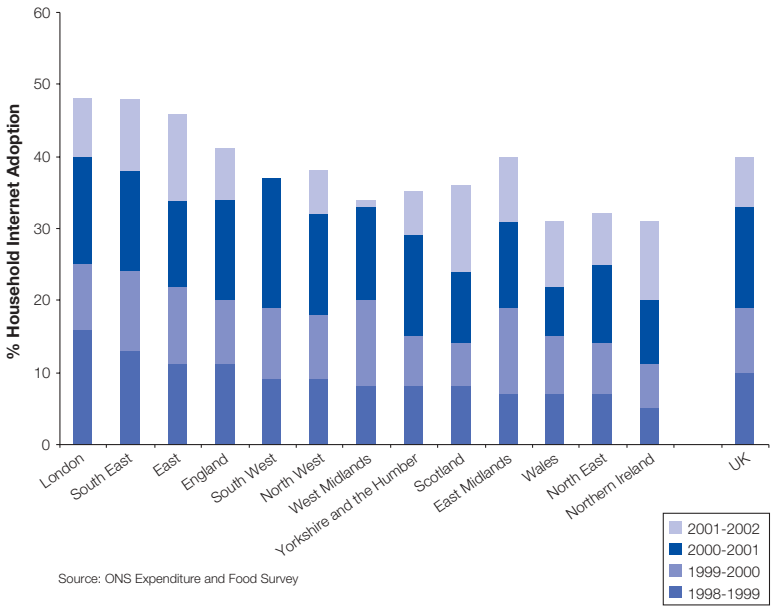


Figure 10[44] illustrates the difference in take-up across the regions. The gap between the most and least connected regions has remained relatively stable at 17 percentage points over the last year in contrast to previous years when it has generally increased. Over the four year period East Midlands appears to have made particularly strong progress. London, the East and the South East remain the most connected regions with nearly half of all households having internet access.

Figure 10: Household internet adoption by region



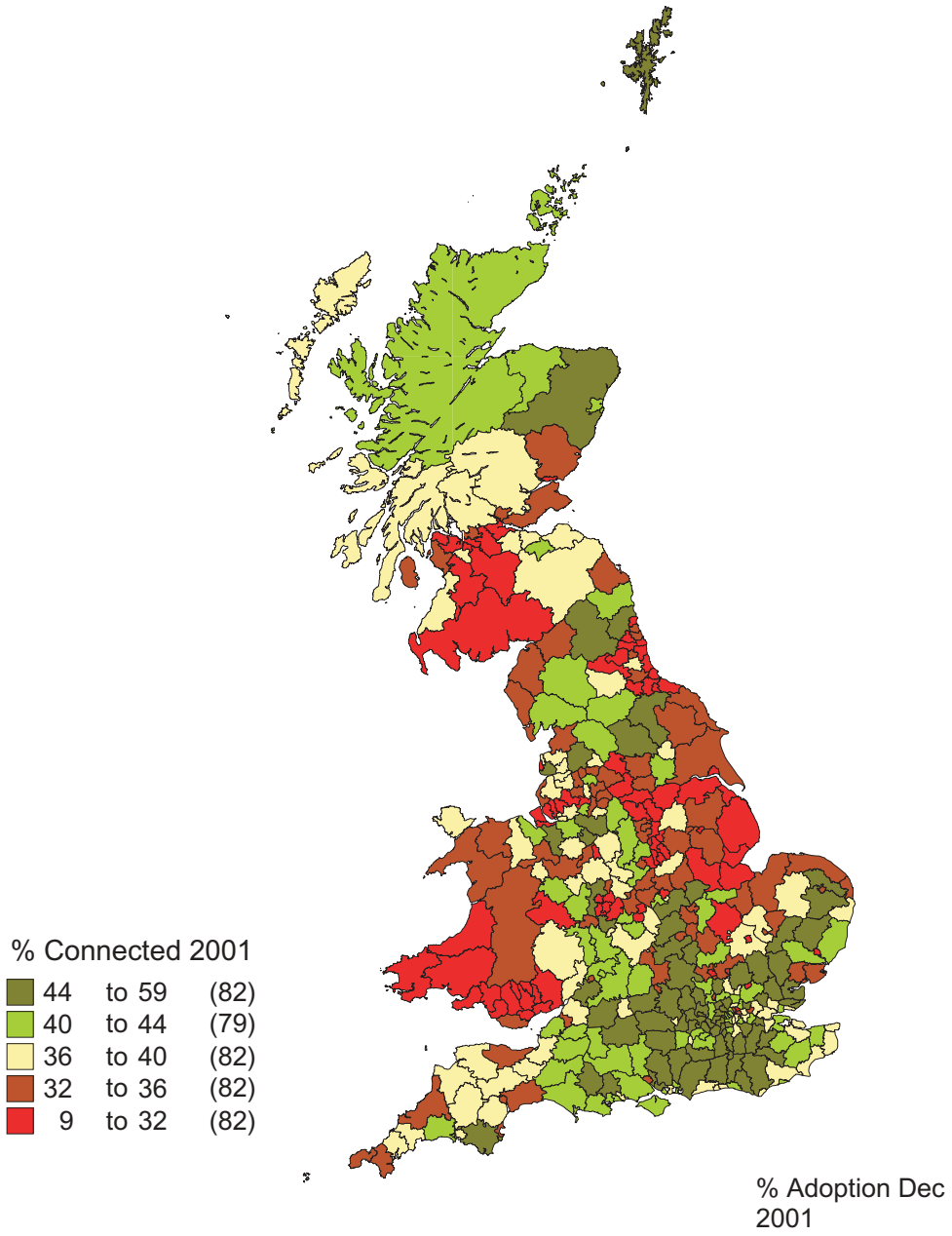
Earlier in the year the International E-Commerce Research Centre (IECRC) at De Montfort University conducted geographic research at post sector level in co-operation with the leading ISPs and Experian. IECRC adjusted take-up figures for the demographic profile of wards to develop a standardised internet adoption measure which enables areas to be compared on a like for like basis. The results are shown in Figure 11.

Using census data IECRC also analysed the relationship between ethnic minority population density and internet take-up at ward level. Using standardised adoption statistics to eliminate wealth effects, the analysis consistently shows that internet adoption is greater than that would be expected in wards where the ethnic population density is higher.

The gender gap has narrowed slightly this year. By July 2002, there were still more men (61%) than women (55%) using the Internet with a gap of around six percentage points. This is down from nine percentage points last year.

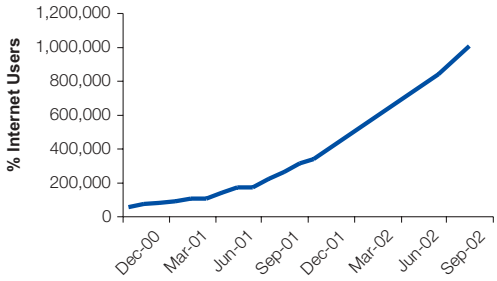
People are using the internet for longer than they were a year ago, continuing an upward trend that started when unmetered services were launched. On average, households are spending nine hours online per week which is up from seven and a half hours in August 2001[45]. This trend in higher usage is matched by a rapid migration of users from metered services, where users are charged for the calls they make, to fully unmetered packages[46]. Since August 2000 the number of UK households using unmetered packages has increased from 25% to over 60%.

Figure 11 – Internet adoption map of England, Scotland and Wales



Subscribers are also demanding faster services. In April this year BT reduced wholesale broadband prices. The subsequent drop in ADSL retail prices combined with competitive cable broadband prices has resulted in a rapid take-up; this is illustrated in Figure 12. There are now over 1 million broadband users in the UK, a fourfold increase from a year ago. It is estimated that an additional 20,000 users are signing on to broadband each week – most of these are experienced users exchanging their existing dial-up products[47].

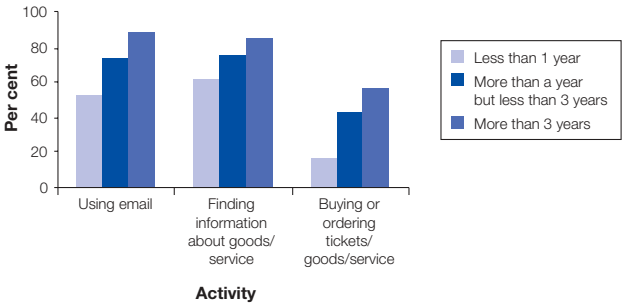
Figure 12: Growth in Broadband Users



The July 2002 National Statistics Omnibus Survey shows that adults in Great Britain who have been online for three years or more are three times as likely to make purchases online than those who have only been online for less than a year – see Figure 13.

Figure 13: Increased sophistication of internet use with time

Time since first used the internet by different activities; GB; July 2002



Source: National Statistics Omnibus Survey, ONS
Note: Like all estimates from sample surveys these figures are subject to sampling variability. This is greater for sub-groups of the population than for national estimates.

Across the activities presented, the largest increases are in buying online – the activity that requires most trust from the user. The survey results support the view that trust builds with time online. Around 12 million people now say they are buying goods or services online (25% of adults). Concern regarding security is one of the largest barriers to purchasing online with around 29% of internet users who have never purchased online quoting this as a main reason. However, only 5% of internet users have ever experienced problems. In addition to increases in online purchasing there are also more people engaged in high bandwidth activities such as playing games (11% of internet users) and downloading software (17%).

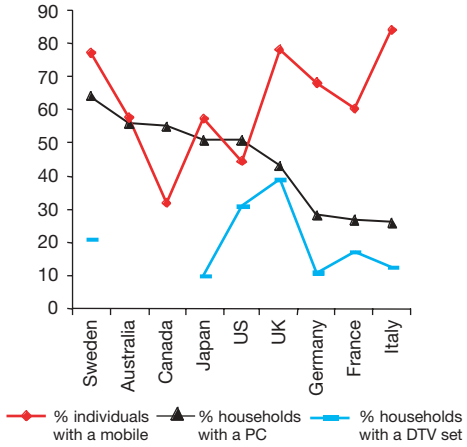
International Comparisons

Our overall assessment on the UK's e-citizen performance is based on measures of readiness of citizens to use the internet, the extent to which they use it and the impact it is having on lifestyles and work patterns. The results, perhaps unsurprisingly, broadly follow internet take-up in each country, with North America and Sweden ahead of the UK, but with the UK well advanced in the chasing group ahead of other G7 countries. Issues identified include low PC penetration and internet take-up by North American and Swedish standards and low frequency/duration of use compared to the leaders.

On measures of readiness of citizens to exploit the internet the UK performs strongly. The UK has the highest penetration of DTV in the world – see Figure 14. DTV is a potential platform for broadband internet access and e-Government service delivery with a more uniform adoption across society than other forms of access. The UK also has one of the highest levels of mobile phone ownership in the benchmark group which provides an extensive base for the potential roll-out of mobile internet services.

Internet access cost perceptions are broadly in line with actual internet access costs which are among the lowest in the world – few UK citizens consider cost as a barrier to internet use. There are, however, some challenges. Home PC penetration is comparatively low and has shown relatively slow growth in recent times. Furthermore, a relatively small proportion of the population either perceive no benefit from the internet, or lacks the skills or confidence to use it.

Figure 14: Access device penetration[48]

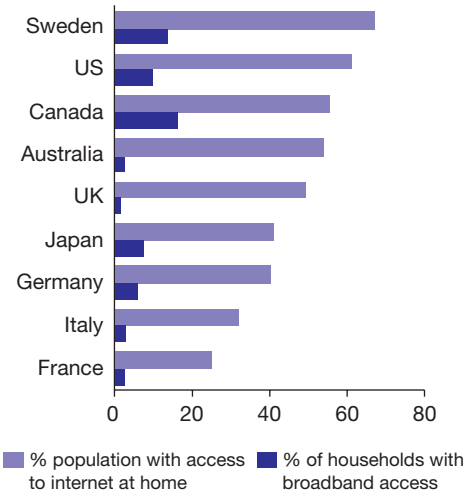


Source: NSIs, Eurobarometer, ITU, Strategy Analytics, BAH Analysis

UK performance on basic internet penetration has been strong over the past three years, closing the gap with Sweden and extending a lead over France, Italy and Germany – Figure 15. The online population demonstrates relatively high trust in the internet – the UK has the second highest proportion of users who have bought online in our benchmark group. A comparison of the scale of the digital divide reveals that the UK's divide by income, although wide, is generally smaller than would be expected compared to other benchmarking nations.

The divide in internet use by age appears considerable across all of the countries and the UK is neither underperforming nor outperforming other nations. The percentage of UK households accessing the internet via high-speed broadband services is among the lowest of the benchmark nations. However, after a slow start the UK now has the fastest broadband take-up in the G7.

Figure 15: Household internet penetration



Source: Nielsen NetRatings 04/2002, Analysys for OeE 04/2002

The impact of the e-economy on citizens has been the greatest in the UK, Sweden and the US. The UK has the highest proportion of sometime teleworkers (people who work from home using ICT) among the benchmark set – this is likely to be further boosted by the rapid take-up of broadband now underway. The value of online purchases is high by international standards – suggesting a greater shift in expenditure patterns offline to online than in most countries in the benchmark set. There has also been a significant impact in the jobs market with strong growth in employment within the UK ITEC sector – among the highest in the world.

Government's Strategy

Transforming Opportunity

It is essential that everyone who wants to use e-Government services, engage in e-business, or get involved in any other type of online activity, should have access to the technologies through which they are delivered. The new capabilities and patterns of behaviour that accompany UK citizens into the Information Age will bring expectations and new challenges for Government.

Our goal is to ensure that everyone who wants it has access to the internet by 2005. While the market has successfully delivered internet access to most citizens, take-up among the most disadvantaged groups in society – those on low incomes, the elderly and people with disabilities – is lower. These groups are traditionally heavy users of public services and potentially have most to gain from convenient, customer-focused channels of electronic delivery. Services such as benefit applications, access to health records and GP appointment bookings will all be available online. But without access to the internet or the skills to use it confidently, these groups may face further social exclusion.

We will raise internet access and use in a number of ways. First, by addressing motivational barriers by raising awareness of the benefits of online services, where people can access them and how they can get support. Second, by promoting affordable access to the internet by investing in a network of PIAPs for those who cannot afford or do not have home internet connections – and promoting access through a variety of different channels. Third, by improving ICT skills by embedding them in schools, further and higher education and lifelong learning opportunities. Finally, by building trust in the internet through promoting consumer confidence and developing strategies to enable people to use the internet safely.

Beyond 2005 – what's next?

With the steady growth in home internet access and the successful roll-out of the UK online centre network we are progressing well towards providing access for all. In achieving this we will have assisted in the development of communities which not only communicate better within themselves, but also with other communities – within the UK, and across the world. We will also have opened up Government, both in enabling people to access truly citizen focused services and in introducing e-democracy. People will be accessing a wide variety of innovative internet products and services delivered by e-retailers and the financial services sector. And they will be accessing these services via a number of different channels, including DTV.

But two fundamental challenges will continue to face us beyond 2005. First, we cannot lose sight of those who do not understand the internet and its benefits. The potential consequences of permanent exclusion from the internet are too considerable to ignore, even if it only affects a decreasing number of people.

Second, as access levels grow, we need to ensure that a natural part of internet adoption is the use of e-Government services. Our investments in e-Government and in providing access are not mutually exclusive – they are inextricably connected. Just as the vision for UK online is that of a single point of access to all of Government, so this must also be reflected on the ground in the community through a vibrant UK online centre network where people can, among their many online transactions, access Government services.

MOTIVATION: selling the benefits of the internet

ONS research reveals that the greatest barrier to internet use is a lack of understanding of its benefits. Of the 43% of adults who have never accessed the internet, nearly half of them (49%) cite a general lack of interest as their main or only reason for not having used the internet. Given these non-users, typically from socially excluded groups, Government strategy to address motivational barriers is twofold:

- **Communication**: Government needs to raise awareness of the internet and online services and signpost people to sources of access and support.
- **Content**: Government should stimulate the production of innovative and relevant content to encourage non-users to get online and existing users to adopt more sophisticated patterns of use.

Case Study

'Let's all get on' campaign

To raise awareness of the benefits of internet use and to signpost citizens to sources of access and support the OeE launched the 'Let's all get on' campaign in November 2001. Adverts, designed to appeal to our target audience, ran on terrestrial and Sky DTV in November 2001 and January 2002 conveying the message that the internet is for everyone – whatever your age, race or background.

Although it was primarily an awareness campaign, viewers were also encouraged to ring a freephone number: 0800 771234 for more information or log onto the campaign website www.letsallgeton.gov.uk. In addition to concentrated bursts of activity the UK online campaign runs year round to develop and maintain awareness among target groups. Partnership activities with the private and voluntary sector have extended our reach into target groups and have acted as a multiplier of direct Government investment.

'Let's all get on' campaign outcomes:

- the 'Let's all get on' initiative was successful at building awareness, with prompted awareness reaching 45% by the end of the campaign. Over 61,000 people called the freephone number to request further information and around 10,000 were directed to a UK online centre or other public internet access point.
- Four celebrity UK online Ambassadors were chosen to appeal to different sections of our target audience. A UK online internet 'guru', Caramel Quin, was also appointed to act as UK online's consumer spokesperson. By appearing on over 150 regional radio shows and writing regular advice columns in regional newspapers, Caramel raised awareness of the benefits of the internet among diverse groups.
- The Partnership strategy has been developed. Overall, we have delivered a total of more than 30 key and associate partners, adding a value of over £1.5m to the campaign. Major achievements include the first three-way partnership between Age Concern, Abbey National and UK online, which provided internet access and support to the over 50s through a nationwide network of Open Houses. Other successful programmes include the community e-enablement scheme set up with Barclays and Tool for Schools which provided PCs to low income households.

'Let's all get on' campaign

UK online Ambassadors

Campaign website letsallgeton.gov.uk

- **What Government will do**

Motivation remains the single most significant barrier to internet use and the Government will continue to progress its work on this front. The two major strands of activity will be a national campaign in 2003, 'Online Nation', and the promotion of stimulating content developed to motivate users to get online and encourage more sophisticated use.

Communication – 2003 Online Nation Campaign

The Online Nation campaign will aim to build on the foundation of awareness created by the 'Let's all get on' campaign and deliver a change in behaviour particularly among socially excluded groups. In addition to the concentrated campaign activity, Online Nation will work with private sector partners to develop e-mentoring so that experienced ICT users are encouraged to help those who are new to the internet. The objectives of the campaign are:

- to encourage people to get on the internet;
- to increase positive perceptions of the internet amongst socially excluded groups;
- to raise the overall awareness and understanding of the UK online programme and brand.

National advertising will be at the heart of the delivery of the Online Nation campaign. Market research shows that the socially excluded groups we want to reach are also a heavy TV viewing audience, so television advertising will be the best way to promote our message to them. National advertising will signpost people to UK online centres and provide an essential backdrop for UK online centres' local marketing activity. Alongside advertising and PR activity we will leverage partner activity from the private, voluntary and community sectors. Partners increase the return on investment of direct Government spending and importantly reach out to our target audience through activity in disadvantaged communities. The campaign will also tie together initiatives and promotions across Government, maximising its impact.

Innovative content

Culture Online[49] is a DCMS initiative to create innovative projects which will increase access to the nation's cultural heritage through the use of digital technologies. Working with a range of cultural and commercial organisations, DCMS will use the £13m allocated by Government to create as many as 30 projects between 2002 and 2004. These projects will develop stimulating and relevant content which will help motivate adults and children to get online. By enabling people to interact with the arts and culture in new and exciting ways existing internet users will also be able to develop more sophisticated and rewarding ways of using the internet.

In addition, the New Opportunities Fund[50] (NOF) has established a £50m NOF-Digitisation of Learning Materials Programme[51] which will generate stimulating electronic content by converting a wide range of existing material. The programme aims to improve the quality of life for all citizens through the imaginative and innovative use of internet and digital technologies. It will create a coherent body of content that will unlock the rich resources of our knowledge organisations and support life-long learning.

Topics covered range from archaeology, transport, and voluntary work to family history, biodiversity and football. Online material will be made available – free of charge – to users of the People's Network[52] and the National Grid for Learning[53]. Projects are under development at present and are designed with the needs of users of ICT learning centres in mind. A regular stream of material will be generated from Spring 2003 until the end of December 2004, which is the expected completion date for the project.

Case Study

This is just one example of a NOF-Digitise project that will improve the quality of online content accessible to ordinary citizens.

Pathe News (http://www.britishpathe.com)

The British Pathe Film Archive is, at present, only accessible to a handful of television professionals. At the beginning of 2003 it will be searchable and viewable online, free of charge, by anyone in the UK with access to the internet. 65,000 news stories covering politics, social issues and sport from 1895-1970 will be searchable and viewable online.

OeE will:

- will build on the success of the 'Let's all get on' campaign and deliver a major campaign in 2003 to encourage people, particularly socially excluded groups, to get online and promote more sophisticated usage by existing users.
- deliver a range of partner marketing relationships with private, public and voluntary sector bodies, as well as consumer brands which reach our target audiences.
- develop e-mentoring support materials in 2003 to help experienced ICT users encourage those who are new to the internet.
- continue to provide a telephone helpline and contact point offering details of the nearest UK online centre and general information about getting started on the internet.

DCMS will:

- continue to stimulate the production of relevant and motivational content to new and existing users, developing up to 30 new projects by June 2004.

NOF-Digitise will:

- continue to develop digital learning materials consisting of well over 1 million images, tens of thousands of audio and video clips, innumerable pages of text and many hundreds of new learning packages being made available by the end of 2004.

ACCESS: improving internet access at home, work, in the community and on the move

Access at home:

The market has been and will continue to be the primary driver to achieving internet access. We have a highly competitive internet market which delivers some of the cheapest access in the world. But the Government continues to have a role in promoting access and use through modernising the UK's legal, regulatory and fiscal environment in order to stimulate growth and competitiveness. It is also imperative that specific action is taken to enable disadvantaged citizens to access the internet if they wish to use online services.

Although the UK offers some of the cheapest internet access rates in the world, the lack of PC access is still cited as a barrier by 25% of non-users.

In Sweden, employer based PC leasing boosted home internet access levels by 36% in just two years as a result of proactive promotion across both the private and public sectors.

Several employers in the UK have taken advantage of the annual tax benefit of up to £500 on loaned PCs to employees, but awareness of PC leasing schemes needs to increase in order to boost take-up.

Access at work

With over 91% of UK businesses now connected to the internet, employers have a potentially major role to play in enabling their staff to get online.

The Civil Service should act as an exemplar of the benefits of internet use for its own workforce and has already produced guidelines in this area. OeE will soon revise these guidelines to ensure their effects are realised across all departments.

Access in the community

In September 2000 the Prime Minister announced the decision to set up 6,000 UK online centres across England. UK online centres are based in community centres, libraries, shops and many other places where the people who need to use them can easily access them.

We have now met and exceeded the Prime Minister's target to create a network of 6,000 UK online centres by the end of 2002.

Interim evaluation of the UK online centres suggests that they are making an important contribution towards bridging the digital divide. A survey of 1,360 users at 59 centres indicated that:

- 61% of users belonged to at least one of the target socio-economic groups (unemployed, ethnic minorities, disabled, lone parents, over 60s, who are not engaged in learning and individuals requiring help with basic skills);
- 55% of users had not previously used the internet;
- 27% of users progressed to a learndirect[54] course after attending a centre;
- 16% of users progressed to further education or higher education.

We now need to ensure that the UK online centre network is sustainable, provides a quality service and assists our efforts to increase the take-up of e-Government services.

Case Study

Riley's UK online centre in Coventry

The centre and its staff have worked flat out to offer free courses and internet access and a very welcoming environment. Riley's prides itself on attracting new learners, setting achievable targets for them and then preparing individual training plans. The centre then offers a quarterly review and monitors progress whilst observing and reassuring the novice learners. Staff also offer advice on qualifications, matching job requirements with interests and hobbies; offer assistance and advice about enrolling on college courses and support in job searches such as compiling CVs.

Riley's disabled facilities include wheelchair access, disabled toilets, screen magnifiers, specialist keyboards, trackball mice, voice activation software and spacious workstations. In addition, one member of staff has sign language skills.

The centre is very active in the community and has developed close links with North East Area Co-ordination, Connexions, community residents associations and Coventry Older People's Forum. It believes strongly in sharing best practice with new/potential centres and encourages discussions and sharing success stories, as well as problems/potential problems.



Case Study

City of Leeds Libraries – Crossgates

ICT and the library service has become a lifeline for some. Mr Uttley, an elderly gentleman from Crossgates, Leeds had a massive stroke a few years ago that made him totally paralysed down one side. With a great deal of determination (and lots of physiotherapy) he is now independent again, and has slight evidence of stiffness in his facial muscles and left-hand fingers.

A highlight for Mr Utterly was when his story was featured in the Yorkshire Evening Post and local newspapers about his magnificent recovery. A nurse who specialises in stroke treatment in Germany wrote to him saying that she had shown the article to her stroke patients and this had given them much encouragement to get better themselves.

Mr Uttley now keeps in contact with the nurse via email. He learned a lot of his computing skills at home during his recovery but regularly comes into the library for keyboard skills to build up strength in his fingers and keep them moving, as part of his continued recovery. To him, visiting the library is also a social visit where he can ask the advice of staff and catch up with his friends.

Access on the move

We set out our plans for delivery of electronic services across different internet channels, including DTV, in the Government section.

Access for people with disabilities

An estimated 8.6 million people in the UK have disabilities, but only 36% of people with disabilities have ever used the internet, compared to 57% of the total population. The Government is committed to ensuring that everyone who wants it can access the internet, and to delivering all Government services electronically and in a customer-focused way by 2005. These targets naturally include people with disabilities.

In addition to the guidelines for Government departments developed by the OeE which provide information about how to make websites accessible to people with disabilities[55], DfES is also developing a customised internet search facility known as Cybrarian. This is an online service to facilitate access to the internet and to learning opportunities for those who currently do not, or cannot, use the internet because of a lack of skills or confidence, or because of physical, cognitive or sensory disabilities. The service will help to motivate users by providing access to a wide range of interesting and useful content in a simple and accessible format, assisted by an easily adapted interface and intuitive navigation, and support them step-by-step to build confidence and ICT skills.

OeE will:

- develop guidance on the annual tax benefit, introduced by the Finance Act 1999, on loaned PCs in order to promote home PC ownership. The guidance will be delivered by July 2003.

DfES will:

- in parallel, use the evaluation of the Wired Up Communities initiative to analyse the costs and benefits of offering home internet access device leasing schemes for the public.

OeE will:

- revise guidance for the Civil Service by October 2003 on the use and benefits of the internet.

DfES, DCMS, and OeE will:

- support UK online centres to develop sustainability strategies. This will include working with centres to deliver e-Government services and exploring the possibility of increasing the number of centres delivering learndirect courses.

DfES will:

- continue to develop the Cybrarian service to be piloted during Autumn 2003.

SKILLS: ensuring that all citizens have the skills and confidence to use the internet

The Government remains committed to embedding ICT skills in schools, further and higher education and in lifelong learning.

Significant progress has already been made – many parts of the infrastructure needed to support e-Learning and the development of ICT skills are already in place:

- 99% of all schools now have access to the internet, compared to 28% in 1998;
- over the six years 1998-2004, the Government has made available £1.8bn to increase access to ICT for pupils in schools. Of this, between 2002 and 2004, £710m has been made available through the Standards Fund[56] for schools' ICT Infrastructure. Following the 2002 Spending Review, DfES plan to provide all primary and secondary schools with 2Mb and 8Mb broadband connections respectively by 2006;

- from 1998 to 2001, the percentage of pupils achieving Level 5 and above in Key Stage 3 tests for ICT capability rose from 56% to 65%[57];
- from 1998 to 2001, the number of pupils undertaking GCSE IT rose from 68,302 to 99,644 and the percentage attaining an A*-C grade increased from 55% to 57%;
- more than 1,800 learndirect centres are open, offering nearly 800 learndirect courses in areas such as IT skills, business skills, the basics of reading, writing and numbers and automotive components. 75% of these courses are available online;
- online learning resources such as Grid Club[58], TeacherNet[59] and Parents Online[60] have been developed;
- all HE institutes and all 420 further education colleges now have broadband access to the internet via the Joint Academic Network (JANet)[61];
- further education colleges have met the target for one internet-enabled computer for every five full-time equivalent students;
- there is now one internet-enabled computer for every two members of permanent teaching staff in further education colleges;
- almost half (48%) of further education colleges offer IT access to their local community.

The Government has made available £1.8bn for ICT in schools between 1998-2004

Over the next two years the Government will spend £100m to provide free laptops for teachers to ensure that they make the most of the ICT infrastructure. By 31 March 2002, over 390,000 (96%) of eligible teachers in England (over 470,000 in the UK) had signed up for NOF ICT teacher training and over 240,000 teachers in England (over 290,000 in the UK) had completed it. Over 99% of schools have now signed up for the training. Computer-to-pupil ratios have improved to 1:9.7 in primary and 1:6 in secondary schools (compared to 1:17.6 and 1:8.7 respectively in 1998).

Case Study

Parents Online

Parents Online invites all schools, libraries, UK online centres and internet cafes to hold special events. From all around the country, from the smallest village school to the local Cyber Cafe, parents have been introduced to the educational side of the internet at Parents Online.

Afro-Caribbean Education & Training Services (ACETS) was established in 1991 and is situated in The Meadows in Nottingham it is both a UK online centre and Learndirect centre. They held their first Parents Online event in their recently opened ICT centre.

Des Wilson the Lord Mayor, Mr John Rudd the principal of The People's College and Alan Simpson MP were there to open the event and welcome the parents and teachers arriving from local schools. Throughout the day parents and children used the Parents Online site to see some of the great educational content on the web today. The staff at the centre also gave a special talk on internet safety to a large group of parents in the afternoon after a hearty Carribbean Lunch!

Promoting learning for people of all ages

DfES is working on another adult learning resource which is an online tool for all adults, not just parents. The Adult Learners Portal will be a one-stop-shop for the customer which will join up with (rather than just link to) Government-wide, public, voluntary and private sector services and information, by reaching directly into content immediately relevant to the customer.

Until now the main skills focus has been on developing a significant infrastructure base in all schools so that they can take advantage of the transformational impact of new technologies. The advances in infrastructure and connectivity in schools support the development of a significant market for digital learning resources and effective practice in the use of ICT for teaching and learning. Curriculum Online is the major programme to take this forward.

Curriculum Online[62] is part of our vision to make the UK the number one country for the supply of ICT skills, for delivering higher standards of education through the use of ICT and for maximising the effectiveness of ICT in schools. DfES is working in close partnership with key industry players to make this a reality; and one that will bring real benefits to all those involved, not least the teachers and learners.

The vision for Curriculum Online is one of online access to digital learning materials that are easily accessible to teachers and which they can use to support the teaching across the curriculum. These materials will be capable of being used over a range of platforms and technologies including with interactive whiteboards, PCs and over DTV. They will contribute to teachers' lesson planning as flexibly as possible, as well as supporting homework. These materials will form a consistent, coherent and comprehensive service for teachers.

Curriculum Online will have five key components:

- an online catalogue of certified resources, searchable by Key Stage, subject and topic;
- access to commercial products for school purchase, including a guide to the best by teachers for teachers;
- e-Learning credits – money for schools to buy digital curriculum resources. This will be funding in addition to the Standards Fund;
- information and learning management systems for schools to agreed minimum Government standards. The content will be tagged to help teachers find the resources they want;
- a content advisory board – a stakeholder board which will ensure resources are available for all curriculum subjects and will help public sector bodies to prioritise commissioning publicly funded resources.

DfES is doing a great deal – through UK online, learndirect, and other initiatives – to provide access to high quality learning and to improve ICT skills levels. They offer an introduction to the internet and email, with learner support to help new users. DfES and key partners are developing an introductory offer that will enable citizens to gain the skills and knowledge to become autonomous users of the internet.

DfES is working to establish for ICT skills the kind of learning infrastructure of standards, curricula and national qualifications that we already have in place for literacy, language and numeracy.

Skills for Life was launched in March 2001 to improve literacy and numeracy skills, as well as the language skills of those who do not speak English as a first language. Excellent progress has been made and we are well on the way to meeting our ambitious targets.

DfES will:

- continue to roll-out ICT infrastructure in schools, with the aim of achieving PC ratios of 1:8 in primary and 1:5 in secondary by 2004. DfES will also continue to explore plans to make ICT hardware available to pupils in the home through leasing schemes.
- fund and take forward a scoping study for a version of Curriculum Online for the post 16 sector, under the working title of 'College Online', to be completed by March 2003.
- continue to develop the Adult Learners Portal, due to go live in April 2003.
- together with key partners, complete the UK online introductory offer pilot by March 2003, with a view to rolling this out across centres by Summer 2003. For the pilot stage this will be called UK online first step.
- continue to work with others, including the Learning and Skills Council, towards adding ICT to the Skills for Life strategy to provide coherence to the initiatives already in place and to add momentum to this vital area of national development.

TRUST: building confidence in the internet

Increasingly, consumers are recognising the benefits of the internet and e-commerce – convenience, choice, competitive prices and easier access to information. The Government will develop a modern market framework which ensures user confidence – including up to date regulation and well informed consumers who are able to obtain redress when things go wrong, and feel safe when using the internet.

Build consumer confidence to support e-commerce

Modernising the regulatory framework

The e-Commerce Directive was brought into force in the UK on 23 October 2002. It contains new provisions on the information that online service providers must make available to consumers and on how to conclude online contracts, as well as provisions on which national law applies to online services across borders, and limits on the liability of web hosts and other intermediary service providers. The new rules should give both consumers and service providers greater confidence in e-commerce.

Global co-operation is increasingly important – to stop internet scams and other breaches of consumer law. Following the memorandum of understanding on enforcement which the Government signed with the US in 2000, the UK agreed a programme of work with the US in June 2002 to look at forging closer links.

The Government has continued to support self and co-regulatory initiatives including TrustUK[63] and European and OECD work on codes and guidelines for e-commerce.

Better information

In November 2001, the DTI launched a safe internet shopping publicity campaign to encourage people to shop online by explaining how to do so safely. DTI published new MORI research into consumers' attitudes, and introduced web based and printed material and a new 'e-shopping' section on the DTI's Consumer Gateway website[64]. It includes signposts to additional information sources for more details about the full range of confidence and security issues.

Dispute resolution

The EC announced the start of a pilot operational phase of the European Extra-Judicial Network (EEJ-Net) in October 2001. It will give consumers access to alternative dispute resolution (ADR) schemes, such as ombudsmen and arbitration, in other Member States.

DTI is funding the National Association of Citizens' Advice Bureaux (NACAB) to provide the UK clearing house for EEJ-Net. DTI recently nominated three additional UK EEJ-Net schemes: those of the Chartered Institute of Arbitrators, Word&Bond and the Finance and Leasing Association.

In January 2002, the consumer complaint website[65], funded from DTI's Modernisation Fund, was launched by the Trading Standards Institute. The website acts as a single point of contact for consumer complaints or advice, and allows consumers outside the UK to make complaints or enquiries about UK traders. The DTI is funding more trading standards projects, aimed at raising authorities' e-commerce enforcement capabilities.

Safety

The Home Office is continuing to provide ring-fenced funding for the National High Tech Crime Unit within the National Crime Squad. The Unit is staffed by IT specialists and law enforcement officers. It undertakes the most technically complex investigations, as well as providing technical support to local investigations and acting as a centre of excellence in developing new techniques, material and good practice with local forces. This funding, over and above general police funding, also provides for each police force to have at least basic network investigation and forensic analysis capabilities, as well as developing specialist training and awareness training for all new officers.

The Home Office and the Unit are working closely with communications service providers and the wider industry to better understand their needs and how they can contribute to addressing those needs, for example in encouraging business to report these crimes to the police to allow them to investigate and prosecute offenders. The

Association of Chief Police Officers (ACPO) High Tech Crime Strategy is presently being revised to reflect the formation and initial experience of the Unit and the evolving environment and the Home Office are developing a wider e-crime strategy.

Research shows that many parents are not confident that they understand their children's use of the internet and chat rooms, and that children give out personal details without considering the risks. Last year the Home Office and the Home Secretary's Task Force on Child Protection on the internet ran a campaign to address these issues. The campaign was aimed at 14 to 16 year olds and the parents of 11 to 13 year olds. Independent evaluation showed that the campaign significantly improved awareness of the key messages in the target groups.

The Home Office is also exploring the issue around providing guidance and directions for any inquiries relating to internet crime across the board and will assess whether a consumer facing internet site is required.

DTI will:

- carry out further work on the safe internet shopping campaign starting in November 2002.
- continue to work closely with the EC and Member States to develop the systems and procedures necessary for EEJ-NET to become fully operational – in liaison with UK stakeholders – by Summer 2003.
- work with business, consumer and regulatory organisations to ensure by the end of 2002 that the code approval activities of TrustUK mesh with the Office of Fair Trading's new approach to consumer codes of practice.
- conclude memoranda of understanding with Australia, Canada and New Zealand by the end of 2002, and play a major role in the development, with OECD member countries, of a multilateral framework for consumer law enforcement co-operation by Spring 2003.

The Home Office will:

- produce an e-Crime Strategy in Spring 2003.
- together with the Task Force on Child Protection on the internet, run a further campaign by Spring 2003.
- assess the need for more consumer-facing internet based information on internet crime by Summer 2003.

5 Devolved Administrations

This section of the report covers the work of the Devolved Administrations, who have each set out their progress and plans.

Northern Ireland Executive

Introduction

The Northern Ireland Executive's programme for Government focuses on five main areas:

- growing as a community;
- working for a healthier people;
- investing in education and skills;
- securing a competitive economy;
- developing North/South, East/West and international relations.

One of the main aims of this extensive programme is to modernise Government and make it more open and accessible to the public. To this end, in July 2001 the Executive Committee approved ESD targets, to deliver 25% of key Government services electronically by the end of 2002, with 100% capability by 2005.

A Corporate Strategic Framework for e-Government was issued for public consultation in May 2001. This framework provides a foundation to co-ordinate the delivery of Government services electronically and help address key issues, such as social inclusion and freedom of information.

e-Commerce

Telecommunications Infrastructure

In line with the Northern Ireland Executive's programme for Government, commitment to a world-class telecommunications infrastructure for the region as a prerequisite for the development of a knowledge-based economy, the Department of Enterprise, Trade and Investment (DETI) and its Agency, Invest NI, have been working vigorously with both the public and private sectors to ensure that Northern Ireland can benefit from the opportunities emerging from broadband communications.

Key among the actions being taken forward has been the stimulation of demand from industry for broadband services. In March 2002, in conjunction with Invest NI's e-Solutions Centre and ICT Advisors, DETI's Telecommunications Policy Unit launched the "Broadband for Business" campaign under the UK online banner and carried out a number of regional roadshows. The Broadband for Business campaign is demonstrating to companies, particularly SMEs, the appropriateness of the various broadband technologies, how these can contribute to their business, and the associated costs.

Following its launch in mid-January 2002, the Northern Ireland SME Broadband Satellite Programme has attracted substantial interest. This programme provides each SME with up to 50% support for both the set-up and first year running costs of satellite connections.

An additional benefit of the broadband satellite programme has been the stimulation of the satellite market in Northern Ireland, with four satellite providers new to our region indicating their intention to actively pursue satellite broadband services with local industry.

In October 2001, Northern Ireland secured £1.5m from DTI as its share of the £30m Broadband Fund. As a result, a call for proposals was issued seeking innovative feasibility schemes and pilot actions exploring various ways of extending broadband technologies to a wider range of users than is currently commercially viable.

The call, which closed on 14 June 2002, resulted in a very positive response of 53 applications from both the private and public sectors, including a number of Local Councils. These applications are currently being assessed and it is expected that Letters of Offer will be issued to 15-20 successful applicants.

- **Invitation for expressions of interest in flagship projects**
  On 24 June 2002 an invitation was issued through the European Journal seeking expressions of interest in possible telecommunication flagship projects for Northern Ireland. The invitation, valued at £2m, is extended to local and international companies and organisations to bring forward sustainable leading edge applications, content or services that showcase broadband service design and innovation in Northern Ireland.

  An information day, held on 25 July, attracted 66 representatives from both public and private sectors. Following the closure date of 27 September 2002 it is proposed to progress to a restricted request for proposals.

- **Call for proposals addressing local access to broadband**
  DETI's Telecommunications Policy Unit is focusing future activities on one of the key telecommunications issues for Northern Ireland, namely local access to affordable broadband telecommunications. This work will involve the identification of methods to stimulate commercial business cases that encourage 'last mile' broadband rollout by the private sector, and which might be supported under a call for proposals, expected to be towards the end of 2002.

- **Broadband aggregation**
  DETI is undertaking a feasibility study into the viability of aggregating demand for broadband services across the wider public service in Northern Ireland, as a means of stimulating the rollout of broadband particularly to rural areas. As well as generating efficiency savings, it is expected that such an initiative will provide wider economic and social benefits, bringing affordable broadband services to SMEs, and addressing digital divide and social exclusion issues.

Information Age Initiative

The work of the Information Age Initiative (IAI) for Northern Ireland came to an end in March 2002 with the establishment of the new economic development agency, Invest Northern Ireland. Over the past year the IAI focussed on:

- encouraging the development of the telecoms strategy in order to ensure affordable accessible broadband services throughout Northern Ireland;
- support for initiatives aimed at moving companies to the higher levels of the connectivity chain, i.e. e-trading and e-business;
- support for digital creativity and multimedia development.

The initiative has had a significant impact over the past two and a half years, not least in terms of directing and co-ordinating the work of the former DETI agencies, IDB, LEDU, IRTU and NITB, in support of the IAI's three key priorities – use of ICTs, growth of the ICT sector and an environment supportive of the knowledge based economy. As its final report, published in April 2002 clearly demonstrates, excellent working and strategic alliances have been formed across the private, public and academic sectors to create and capitalise on Information Age opportunities for local businesses.

A particular emphasis was placed on supporting local projects which met the objectives of the IAI – the Leapfrog projects. Under its first call for projects, 31 proposals were selected to receive assistance from EU Peace and Agenda for Government resources. To date these projects have directly impacted on over 800 companies and created over 170 jobs.

Invest NI is now taking forward the agenda set out by the IAI. This includes work by a team of six ICT advisors who are currently in place, jointly funded by Invest NI and UK online for business. An annual target of providing support to 500 small businesses is on track for achievement with an average of 45 companies per month using the advisers' support.

Invest NI continues to offer advice and, where appropriate, financial support to companies to help them maximise the business benefits of e-business.

Getting Government online

Case Study

The Rural Portal

The Rural Portal was officially launched on 15 January 2002. There are currently just over 300 farmers registered to access the Animal and Public Health Information System (APHIS) online. In keeping with the aim of providing better services and better access to information and services electronically, APHIS and services such as online benchmarking are being developed and enhanced. Work to use digital certificates for identification and authentication and to use the Government Gateway as an authentication and transaction engine is continuing. Work on the Sheep Annual Premium Scheme electronic application is being undertaken by the Grants and Subsidies Payments Division. An initiative to allow agents to access electronic services on behalf of clients is also being progressed.

Case Study

Land Registers of Northern Ireland

landweb direct, the Land Registers of Northern Ireland's public access service, went live at public counters in its headquarters building in October 2001. The service provides users with the functionality to view electronic land registry maps and documents using a range of searching options. The next release of the service commissioned in July 2002 provides additional functionality and the ability to access information over the internet. Other functions include searching for information held in the Registry of Deeds, to request copies of documents and maps held in both registries and to have them automatically delivered. Payment for these services is either by suspense account (set up when registering for the service) or by credit or debit card. Internet access to the system is currently the subject of a pilot exercise involving a small cross-section of customers who are testing the usability of the functionality over the internet. The pilot is due to end shortly and feedback from the exercise to date has been positive. Following evaluation the service will gradually be extended to all parts of Northern Ireland. The target market (estimated to account for in excess of 90% of the potential customer base) is current solicitors, law searchers and those Government agencies dealing with land. It is expected that in future the service will be extended to lending institutions, surveyors, architects and other professional groups that have a need to interact with land registers. It is intended that from November 2002, users accessing landweb direct services will be authenticated using the Government Gateway.

Case Study

JobCentre Online

In January 2001 the Employment Service of the Department for Employment and Learning (DEL) in Northern Ireland launched (JobCentre Online) to publish all job vacancies notified to it by employers. The Department's operational client management system, which holds information on vacancies, automatically refreshes the internet site every 15 minutes, thereby ensuring that vacancy information on the site is always up to date. At the same time, DEL also piloted the provision of vacancy information in its job centres through touch screen kiosks. The technology was piloted in six job centre locations. The same technical arrangements are used to ensure that vacancy information is kept up to date. Both of these projects have proved to be very popular with the Department's customers and the services are now being extended to all 35 job centres in NI via specially designed Jobpoints. To date 10 locations have been rolled out.

JobCentre Online has been enhanced to become a more interactive and accessible internet site, allowing for personalisation through registration, saving searches, uploading CVs and online job applications.

Case Study

Driver and Vehicle Licensing

Driver and Vehicle Licensing Northern Ireland is responsible for the licensing of drivers, including taxi drivers and road freight and bus operators.

Changes of address can be notified to the agency, as required by law, through the agency's website and through online, single point, change of address services provided by three private sector companies with which the agency has set up links. The agency's successful telephone relicensing service for the renewal of car tax is being rolled out to include links to a central insurance database and a developing database of vehicle test results. This will allow all customers to make use of the service, which will then be developed to provide an online service.

Case Study

General Register Office

The General Register Office (GRO) is responsible for the administration of marriage law and the provision of a system for the civil registration of births, deaths, marriages and adoptions in Northern Ireland. The office is a branch within the Northern Ireland Statistics and Research Agency, which is part of the Department of Finance and Personnel.

Web based services, which offer an online application service for birth, death, marriage and adoption certificates are now available. The office has made numerous improvements in the past few years aimed at improving customer service and due to customer demand a priority service for those who require certificates urgently has been introduced. A credit card payment service has also been introduced.

Simplified keyboard access to computer indexes to allow ease of access and speed up the process for searchers and genealogists has recently been provided.

The GRO's long-term strategy is to utilise new technology to minimise costs and to make the service more convenient for its customers.

Case Study

Electronic Health And Social Care

The Department of Health, Social Services and Public Safety has recently published, for consultation, a draft ICT strategy for Health and Personal Social Services. The strategy sets out proposals that would, subject to resource availability, lead to fully ICT-enabled health and social care by 2010. The key themes of the strategy are electronic care records and electronic care communications.

Although the strategy is still out for consultation, the first year of the strategy programme is already under way, based on the positive responses to the strategy vision published last year and successful bids for Executive Programme Funds.

The main strands of current activity are:

- introduction of a new 'Health & Care Number' to all relevant ICT systems across the HPSS and in GP practices;
- modernisation of GP practice ICT and connection of all computerised practices to HSSnet, the private HPSS data network;
- providing connected GP practices will electronic reporting of pathology and radiology results;
- enabling direct access from GP practices to hospital patient administration systems;
- introducing direct booking of first outpatient appointments from GP practices;
- consolidating all current distributed HPSS servers into a unified central configuration – supporting initiatives towards introduction of an HPSS-wide electronic care record.

Case Study

Digital Divide

In line with action taken in other UK regions and work being carried out under the auspices of the British Irish Council, the Central Information Technology Unit for NI, has recently carried out research on public access to ICT in Northern Ireland.

The Unit published a paper for public consultation, entitled Bridging the Digital Divide in Northern Ireland in August 2002 which identified a number of appropriate actions that the public, private and voluntary and community sectors could take to ensure that access to ICT is available to all who want it.

Public consultation on public access to ICT in Northern Ireland is scheduled to run until 19 November 2002 and the paper will be available online at www.consultationni.gov.uk until that date.

Case Study

Electronic Libraries

The Electronic Libraries for Northern Ireland (ELFNI) project will introduce significant business change into the public library services in Northern Ireland, by introducing new electronic systems and services and by rationalising functions across the five Education and Library boards. It will enable libraries to function as community information hubs, to open up new ways of lifelong learning using the new technologies and ensure that those from the most socially disadvantaged backgrounds do not lose out. A range of additional new services is proposed to assist the public library service to meet the needs of 21st Century users. The ELFNI project is, additionally, the vehicle for implementing the People's Network in Northern Ireland libraries, providing public Internet access and a range of electronic information services to all library users. Implementation of all services, including connection to a broadband network, is planned for completion towards the end of 2003.

Scotland

The Scottish Executive's work on the modernising agenda is focused on four main areas: public service delivery, digital inclusion, e-commerce and broadband.

Delivering Better Public Services

Working together for Scotland, the Scottish Executive's programme for Government states: "We will get all Government services, in Scotland, which can feasibly be delivered electronically online by 2005."

Latest published figures show that 80% of public services delivered by the Scottish Executive, its agencies and Non-Departmental Public Bodies in Scotland are now available online to some degree.

The Scottish Executive is fully committed to a multi-channel approach to service delivery. While we recognise that face to face and telephone services remain central, we also support greater choice of access through interactive DTV, mobile phones, kiosks and the internet. Some transactional services are already available with more being developed. The challenge we are working on now is to increase access and usage of electronic services designed to suit the citizen – not the provider.

The Scottish Executive is focused on better delivery of services to the public by improving current processes. While technology plays a key role in developing new channels of service delivery, culture change and raising the quality of customer service in the public sector are also central to the modernisation process.

In pursuit of these objectives the Modernising Government Fund (MGF) has been extended for a further two years. The second round of the Modernising Government Fund has up to £30m at its disposal, an increase on the first round fund and double the amount that was originally announced. MGF2 will build on the success of MGF1 and encourage partnership working across the public sector. The fund is intended to promote a citizen-focused approach to modernising the delivery of public services in Scotland across several key areas:

- to improve the way in which services are delivered to the public, in particular developing the concept of an integrated customer record or 'Citizen's Account' that can be supported by a citizen's smartcard. To promote secure data sharing across the public sector, in particular to support joined up working and help to change the culture of the public sector;
- to promote the data standards that can deliver interoperability across the public sector. The Information Age Government Framework was published recently, and is the document through which new standards will be promoted;
- to support e-procurement and help maximise the purchasing power of the public sector.

On 24 May 2002 the Minister for Finance and Public Services announced funding of more than £16m to support seven key public sector partnership projects. Projects include:

- £5.4m to develop services for young people and a young person's smart card.
- £4.7m to support local authorities in the development of citizen focused information systems;
- £1.4m to support the National Health Service in Scotland and local authorities to develop a national e-care programme for children and elderly services focusing on data standards and single shared assessments;
- £4.9m to help establish a national land and property database for Scotland.

You can find out more by visiting the Openscotland website: www.openscotland.gov.uk

Openscotland is a distinctive brand identifying Scottish Executive activities which aim to:

- provide the people of Scotland with better access to public services and help improve the delivery of these services;
- ensure the people of Scotland have the access, skills and awareness to enable them to make beneficial use of computers and the internet in their day to day lives.

Digital Inclusion in Scotland

The Scottish Executive launched its digital inclusion strategy "Connecting Scotland's People" in September 2001[66]. The Executive is committed to bridging the digital divide and to achieving universal access to the internet by 2005 – ensuring that everyone in Scotland has access to internet – whether at home, work, or through public internet access. The Executive is working to ensure that public internet access is generally available within five miles in rural areas, and within one mile in urban areas.

ICTs and the internet can make an important contribution to improving people's day to day quality of life – reducing social exclusion, increasing social interaction – and improving access to jobs, education, entertainment, shopping, cultural and leisure interests.

ONS statistics suggest that household internet access has grown significantly in Scotland over the last year or so – with around 36% of households now online, compared to 24% in 2000. However many people in Scotland do not have access to the internet – and predominantly these are people with low incomes and low skill levels. People with higher incomes are six times more likely to have access to the internet than people with low incomes. The digital divide in Scotland is not related to a lack of telecommunications infrastructure.

The main themes of the digital inclusion strategy are therefore:

- **Awareness and promotion** – ensuring excluded individuals and groups are aware of the opportunities that ICTs can provide;
- **Access** – providing access to ICTs at the time, place, method and price appropriate to the needs and lifestyles of disadvantaged communities and individuals;
- **Support** – providing reliable, accessible and cost effective sources of advice and support is crucial;
- **Skills** – developing the basic computer and technology skills that will instil individuals with the confidence to use ICTs;
- **Content** – ensuring that disadvantaged individuals and communities are provided with, or develop themselves, online content and services that they value and wish to use;
- **Community Involvement** – ensuring that initiatives are sustainable at a local level, and that local communities have a sense of ownership.

Over the last year the Executive has worked to:

- increase awareness of the benefits of getting online:
  - A campaign was conducted late in 2001 with the UK Government to raise the awareness of the general public of the benefits of getting online, followed by a campaign in the Scottish press. The Executive's work on digital inclusion is now branded "Openscotland – get connected";
- increase awareness of existing public access to the web:
  - The locations of all facilities providing public access to the web in Scotland have been mapped and published on the web and via the UK online call-centre;

- increase public access to the web:
  - Over 1,000 new public internet access points are being created in places that people already go – such as pubs, hairdressers, community centres and shops. This initiative is significantly increasing public internet access across Scotland – particularly in rural Scotland. In addition over 500 libraries in Scotland now offer free access to the web.
- involve communities:
  - two pilot digital communities are being developed in two disadvantaged areas in Scotland. The impact of internet access is being assessed in two different kinds of community – one rural and one urban. The objective is to assess how individual access to the internet can transform opportunities for people living in these communities, by developing new ways of accessing learning, work, shopping and leisure. The rural community is the North Argyll Islands, which includes Mull and 12 other islands, and the urban community is Bellsmyre in West Dunbartonshire. Up to 2,000 households in each community have been offered the opportunity to receive a free PC and a year's free internet access –along with training and support. The roll-out of PCs in these communities will be completed in Autumn 2002.

Further details of the Executive's work on digital inclusion can be found at www.scotland.gov.uk/digitalscotland/webaccess/ or contact digital@scotland.gov.uk.

e-Commerce

The main mechanism for delivery of e-commerce assistance in Scotland is through the Enterprise Networks, namely Scottish Enterprise (SEn)[67] and Highlands and Islands Enterprise (HIE)[68]. This assistance takes the form of locally delivered awareness raising, workshops, demonstrations and advice, as well as centrally managed resources, events and consultancy. The networks also participate fully in UK online for business initiatives, including participation in e-business week in October as well as schemes such as the e-SME scheme.

The Enterprise Networks' e-business strategies were given a steer by A Smart, Successful Scotland[69] in January 2001, a policy statement of what the Scottish Executive expects from the Enterprise Networks. SEn's strategy, Connecting Scotland, has the acceleration of the competitive capability of organisations and individuals through the development and use of e-business as its main aim. For 2002–2003, SEn set an operating target of assisting 1,400 businesses to market and transact online.

HIE currently has an e-business strategy under development as part of their Growing Businesses Group's restructuring. This three-year programme, funded by the European Regional Development Fund (ERDF) Special Transitional Programme, began in March 2001 and provides in-depth advice and support from a team of locally based e-business advisers. A financial scheme is also in place to assist businesses with the costs of implementing e-business solutions. It is expected that the programme will have an impact on 750 existing and new companies in the HIE area.

In order to gain a better understanding of local e-business needs and attitudes, the Enterprise Networks have undertaken a Scotland-wide local benchmarking survey in addition to the DTI's International survey. The local survey is particularly useful for the enterprise networks to analyse the effectiveness of their strategies and consequently to refine and update their programmes of assistance to meet their local business communities' needs.

The Scottish Executive's Broadband Strategy

The Scottish Executive's strategy identified two main issues relating to broadband in Scotland: local access and cost. Launched last August, it aims to promote affordable

access across Scotland for the purpose of economic development and to prevent a digital divide opening up between urban and rural areas. The strategy consists of three strands – aggregation of public sector demand, consideration of direct intervention measures, and UK regulatory liaison.

With regards to the first strand, progress under the Pathfinder initiative continues to be made. Aggregated procurement is a new approach to telecoms procurement for the public sector and is being tested in two Pathfinder areas – Highlands and Islands and the South of Scotland. Work is now in hand locally to move the procurement process forward towards the effective aggregation of public sector demand.

The strategy's second strand involved direct intervention where this was considered appropriate. Scotland was allocated £4.4m under the DTI's £30m UK Broadband Fund and work has been ongoing to develop projects which will address both the demand and supply sides of the broadband equation. This will be achieved through a combination of awareness raising measures and technology trials which are being progressed by both Scottish Enterprise and Highlands and Islands Enterprise.

Finally, our broadband strategy highlighted the importance of liaison on policy developments at UK level. This has been pursued both on the telecoms regulatory front (particularly on the Communications Bill, and on fixed Wireless spectrum allocation) and through contact with the Broadband Stakeholder Group. Liaison with the other Devolved Administrations has been important in progressing and developing the Executive's work while most recently, we have agreed to work in partnership with the DTI's Regional Broadband Unit and are currently discussing the terms of this relationship.

At the same time as the Executive's overall broadband strategy was developed and activities began under it, Scottish Enterprise developed a strategy to address an identified lack of competition and resultantly prohibitive prices in the Scottish wholesale telecoms sector. The Accessing Telecoms Links Across Scotland project (ATLAS) will target large corporates and specialist high end users of bandwidth (such as ISPs) in Edinburgh, Glasgow and Aberdeen. The project's first phase has received funding approval and is expected to be operational by the end of 2002.

In conclusion, the Executive's broadband strategy highlighted the aim of making broadband connections more affordable and pervasive. We believe that the activities of the Executive and both Enterprise agencies, described above, have moved us closer to that goal, but that further work has to be done. We will be publishing an update to our broadband strategy, describing the progress that has been made since its publication a year ago. Whereas the initial focus of the strategy was on access to and cost of broadband, our focus for the future will be on the importance of demand and take up of existing supply in order to sustain the development of broadband across Scotland. Our overall goal remains a Scotland with affordable and pervasive broadband.

Wales

Cymru Ar-lein – Online for Better Wales

The Welsh Assembly Government ICT Strategy

Introduction

The e-Minister, Andrew Davies, emphasises the opportunity for ICT to enable sustainable – economic, social and environmental – development, social inclusion and equal opportunities. The Welsh Assembly Government has identified appropriate use of ICT as a key tool for personal, organisational and community development throughout Wales.

We want Wales to be:

- united through its use of ICT, confident in promoting our achievements on the world stage and creative in exploiting ICT for the benefits of individuals, communities and businesses;
- committed to fostering, through the effective use of ICT, its unique and diverse identity, and the benefits of bilingualism;
- using ICT to become more prosperous, well-educated, skilled, healthy, environmentally and culturally rich;
- served by modern, effective, efficient and accessible public services that use ICT to enhance their services;
- active in its use of ICT in local communities, where the voice of local people is heard;
- fairer – a place where everyone is valued and ICT is used to give everyone an opportunity to play a full part.

Strategy

Early in 2001, the Welsh Assembly Government undertook its largest ever electronic consultation on proposals for the digital future of Wales. 3,000 organisations and individuals were contacted urging them to participate in creating and shaping the Assembly Government's ICT Strategy. The result is Cymru Ar-lein – Online for a Better Wales the strategic framework, which was unanimously approved by the National Assembly for Wales on 3 July 2001.

Andrew Davies the e-Minister launched Cymru Ar-lein on 22 November 2001. Its unique holistic approach – both in practice and embedded in the website – provides top level strategic vision for the whole of Wales. A "joined-up" partnership approach and SMART[70] target actions ensures that the vision is delivered. It directly supports the Assembly Government's sustainable development agenda, through key programmes in community regeneration, e-learning, appropriate transport, e-procurement, and e-democracy.

Continuous feedback is essential to the continued development of Cymru Ar-lein in our rapidly changing technological, environmental and cultural landscape. Therefore the website remains permanently open to receive comments, information about people's activities and feedback on our progress.

Co-operation and partnership are essential to the achievement of the Cymru Ar-lein vision. The Welsh Assembly Government provides the leadership and co-ordination role and is assisted by a wide range of partners engaging in integrated activities. Our partners include:

- Cymru'n Creu;
- Education & Learning Wales (ELWa);
- Forum for the Future;
- National Library of Wales;
- NHS Wales;
- Opportunity Wales;
- People's Network Wales;
- Syniad;
- Wales Council for Voluntary Action (WCVA);
- Wales on the Web;
- Welsh Development Agency (WDA);
- Welsh Language Board;
- Welsh Local Government Association (WLGA).

Cymru Ar-lein is on the internet at www.cymruarlein.wales.gov.uk. The strategic framework has five themes:

- Citizen and Community
- Private Sector
- Public Sector
- ICT Skills
- Infrastructure

For each theme a number of key commitments and delivery objectives have been developed. For each objective a number of targets, with owners and time

scales and progress reports are published regularly on the site so that people in Wales (and outside) can follow our progress.
A major feature of the site are the Discussion Fora, which enable citizens to be closely involved in the development of the strategy, seek help and guidance and tell us how we are doing. In addition to the five themes above, there are also fora on: ICT and the Welsh language, European funding for ICT and ICT and Sustainable Development.

Achievements

The actions database on the Cymru Ar-lein website provides updates on the targets within the framework. Some key milestones are noted below. Of our 84 original goals, we have completed 17 already, 59 are on target and eight have been rescheduled. New targets have now been added and progress on all targets can be seen on the website.

Citizen and Community

To use ICT to enhance communities, their culture and languages, promote social inclusion and help combat a digital divide.

- An early development of Cymru Ar-lein is its database of ICT facilities across Wales. The citizen can find their nearest ICT facility such as the local library, school or ICT learning centre. It can be seen on the Cymru Ar-lein website[71] Funding has been allocated for approved LEA plans to provide learning centres. Implementation is being monitored through the Cymru Ar-lein database and an evaluation study is to be commenced later in 2002.

- The People's Network, providing free internet access and improved access to information services in public libraries, is being rolled out in Wales during 2002, and it is on target for full coverage by end of year.

- A business plan for a major Objective 1 funded e-communities programme has been submitted to the ICT Objective 1 Partnership and is currently going through the approval process. This programme will expand the use of ICT learning centres and train individuals to use ICT as a tool to develop their communities as well as providing technical frameworks for community websites. The anticipated start date is December 2002.
- We are providing "joined up services" to farmers and the community through the JIGSAW automated processes and data capture, which uses the internet for claim submissions from farmers, delivery of integrated GIS records, use of bilingual tools and provision of free internet access for farmers via Welsh Assembly Government Divisional Offices.
- The Assembly Government has undertaken a general Cymru Ar-lein leaflet distribution to all main libraries in Wales, all primary, secondary and independent schools in Wales, and a large number of voluntary sector organisations. The second leaflet in the series providing information about the 'Broadband Wales' Programme has now been printed and distributed to audiences at the 'Broadband Wales' launch, the Royal Welsh Show and the National Eisteddfod.
- The Welsh Language Board has compiled a comprehensive list of computer resources available in Welsh or facilitating the use of Welsh. This is published on the Board's website[72] and regularly updated.

PRIVATE SECTOR

Develop a Wales where all businesses, wherever they are located, are able to exploit information and communication technologies fully in order to improve their competitiveness, innovate and achieve sustainable growth.

- The annual Wales e-Commerce Awards were held on 21 June at the National Botanic Gardens. Over 200 entrants

registered for the Awards and just over 100 completed entries were received. The 2002 winners included www.veteran-horse-society.co.uk, www.havoca.org, www.blushingbuyer.co.uk, www.snowforecast.com, www.wales-direct.com, www.cpm-gifts.com, www.pacetelecom.co.uk and www.giroflex.co.uk

- The Objective 1 funded 'Opportunity Wales' programme offers a wide variety of services to all SMEs in the Objective 1 areas. Personal advisers are able to visit each business to provide a free e-commerce review, followed up by additional low cost, high value consultancy services. They can also provide financial assistance should a business wish to purchase products and services identified through the e-commerce review. Finally, a business wishing to demonstrate best practice and able to share its success, can also be supported. As of September 2002, over 1,200 business reviews have been delivered. 'Opportunity Wales' will be extended to all Wales through an Objective 2 bid in future. More information can be found at www.opportunitywales.co.uk.
- Wales SME Business 2 will provide 'high-end' ICT advice to SMEs looking for full integration of ICT into their businesses. SME Business2 has been agreed by the Objective 1 Regional Partnership Board and is awaiting approval.
- The all Wales network of Business Connect ICT Support Centres are offering impartial 'low-end' ICT help and guidance to about 5,000 businesses each year. The Welsh Assembly Government has made available £750,000 three years core funding of the ICT Support Centres from April 2002. A review of the network in light of the Business Support review is currently being undertaken by the Welsh Assembly Government and the WDA. Thirty eight ICT Business Support Advisers are now delivering ICT support across Wales. For more information, see www.businessconnect.org.uk
- We are seeking to ensure that all public sector ICT advisors providing advice to business are @TEB accredited. Two ICT support delivery companies have achieved company accredidation status and 35 individual advisers are working towards accreditation. For more information, see www.atebcymruwales.co.uk

PUBLIC SECTOR

We will, through our partnerships and agreements, use ICT to deliver first class public services across Wales and play our part in stimulating developments in other sectors.

- The Assembly is looking at its own working patterns and processes to establish a mechanism by which it can use ICT for organisational improvement. The Internal Assembly ICT Vision is being developed into a strategy in order to make key business processes electronic. Elements that are currently being trialled include an IT Skills Academy for Assembly staff and a Computer Based Training (CBT) pilot. The pilots are successful and are now being considered as the way forward for future IT skills training delivery.
- The Welsh Assembly Government is currently evaluating Implementing Electronic Government (IEG) Statements from local authorities in Wales, with a view to sharing good practice, establishing partnerships and agreeing local e-Government targets.
- The Member Development Wales programme has been published outlining the development opportunities for elected members in Wales and offering training options on a regional basis. e-Government regional events have been scheduled. In-house training has been provided to one Welsh local authority and, in addition, awareness raising sessions for elected members have been provided through events such as the WLGA Annual Conference and the Joint Council for Wales.

- The Welsh Language Board carried out a snapshot survey of bilingualism of public sector websites in January 2002 and submitted an official response to the OeE's consultation review of public sector website standards.
- A National Procurement Website is being established by the Welsh Assembly Government in partnership with the WDA. The single procurement website for the Welsh public sector is currently being built and will build upon the recently established Assembly website 'Winning our business'. Contract opportunities will be advertised on the site broken down by commodity and region, and aimed at increasing supplier awareness of opportunities. A group of public sector organisations will be identified to pilot the new system in December 2002, with roll-out commencing in March 2003.
- A Purchasing Card Project is underway involving piloting use of an all-Wales purchasing card across the Welsh public sector to reduce the administration costs for low value transactions. A purchasing card is currently being piloted in North Wales. Following the success in North Wales and at the request of many other organisations, a South Wales Forum is now being established.
- 308 (61%) general medical practices were connected to the internet by the end of September 2002 through the ICT Foundation Programme for General Medical Practices.
- Health of Wales Information Service (HOWIS) is a web based service providing information on health and lifestyle of the people of Wales, performance, management and development of the NHS, provision and availability of services and the evidence base of health care to users throughout the NHS in Wales. The marketing team are actively promoting HOWIS to the NHS Staff at a number of roadshows, meetings and events. Planning is underway to promote HOWIS to patients, public and partners from January 2003. For more information see www.wales.nhs.uk.

ICT SKILLS

Ensure everyone in Wales can acquire the skills and understanding to participate in and benefit from the Information Age.

- All schools were connected to the internet by March 2002. A minimum of three electronic white boards (or equivalent technology) have been provided for every secondary school in Wales and a minimum of one to every primary and special school. Funding has also been provided for teacher training on the new technology. Plans have been agreed for the first stage of an all-Wales teacher support structure as part of an integrated e-learning strategy.
- ELWa started a pre-pilot e-placement scheme in Pembrokeshire in September 2002, which should lead to a larger number of fuller pilots in 2003. This involves placing IT graduates at e-learning centres to ensure that the ICT skills needed to make such centres work do not disappear to more prosperous parts of the world.
- The National Grid for Learning (NGfL) Cymru contract was awarded in June 2002. It will identify and develop electronically based material in both Welsh and English and support the development of the Curriculum Cymreig.
- The e-Minister established the ICT Advisory Panel to provide robust advice on policy development and delivery in schools. They procured the ICT Task Force whose contract was awarded in July 2002. The Task Force will map out a strategy for ICT in Wales, including better approaches to procurement.
- The Cymru Ar-lein ICT skills and e-learning expert group was established in January 2002. It will help ELWa prepare an e-learning strategy; and address the skills issue as identified in the Skills and Employment Action Plan. They are currently developing plans to provide integrated ICT support and training services for teachers and trainers across Wales in support of the Broadband for Lifelong Learning programme.

INFRASTRUCTURE

We will work with partners in the public and private sector to ensure Wales develops first class ICT infrastructure based on the most advanced available technologies to support our overall vision and objectives throughout Wales.

- The Core Network of the Broadband Lifelong Learning Network was completed by the network supplier on target. This will provide 100 Mbps connections and internet connectivity into every unitary authority. Gwynedd will be the first authority to transfer to the network. A timetable is being prepared for the other authorities to transfer from current ISPs to the Lifelong Learning Network. The local authorities will link this hub to schools, libraries and community learning centres in Wales.
- The £100m Broadband Wales programme was announced by the e-Minister on 11 July 2002. It will bring this latest technology to 310,000 extra homes and 67,000 extra businesses in Wales. It is the biggest Government investment of its kind in broadband in the UK.

Broadband is crucial to the success of the Welsh economy, public services and the drive to raise people's skills and knowledge. Broadband services are, at present, limited in Wales because the cost of extending the network, particularly to rural areas, is often not commercially viable to private companies.

The funds for the Broadband Wales programme will be achieved through aggregating public sector monies in Wales. The investment will build on the £23m already committed by the Assembly Government and £20m from the Welsh Development Agency (WDA). The Welsh Assembly Government will also be working with the Objective 1 Infrastructure Partnership to focus the funds they have available to support actions under this initiative.

From September 2002 the Broadband Wales programme:

- links ICT business support centres to broadband so that small companies can try out the technology before they sign up;
- subsidises the cost of ADSL satellite connections to SMEs where no terrestrial connection is available – and to ensure an even playing field for SMEs.

Within five years it will:

- increase the affordable availability of terrestrial broadband services by Wales by 30%, bringing the services to an extra 310,000 homes and making 67,000 business lines available;
- bring broadband to virtually all new and existing business parks in Wales, which have identified a need;
- mount a high-profile campaign to promote the benefits of broadband.

For more information, see www.cymruarlein.wales.gov.uk/broadband.htm

- A scoping study is currently underway to ascertain how Assembly and major ASPB websites can be pulled together under an international portal. A large amount of work has been done on Wales on the Web – the cultural arm of the portal.
- Culture Cymru Online is being taken forward by the Cymru'n Creu Forum, which comprises the Assembly and key public and private agencies in the cultural sector. The Forum's ICT Working Group is taking forward Culture Cymru Online by developing the use of networked ICT cultural services to help achieve the diverse objectives of the Culture Strategy. The web project is funded largely by the British Library and located in the National Library of Wales.
- Gathering the Jewels is a large-scale project funded by the New Opportunities Fund (NOF) and managed by a limited company owned by nine public bodies representing Welsh museums, archives and libraries. Its aim is to digitise 20,000 images of cultural heritage material which

are held in institutions in Wales and to bring them together as part of a single website. It aims to 'go live' in October 2002 and complete in March 2003. More information can be found at www.gtj.org.uk.

- As part of the NHS Wales' Telecommunications 2000 Strategy, the old NHS Wales Core network and all NHS Trusts have completed their migration to the use of IPVPN in their network configurations. This has led to much improved bandwidth capacities, the removal of old bottlenecks and improved responsiveness of systems and extensive introduction of broadband services across Wales in a consistent manner.
- A project is under way to improve the co-ordination of Geographical Information Systems (GIS) in Wales. A questionnaire regarding the extent of GIS use within Wales has been finalised and using a focus group comprised of the Association for Geographic Information (AGI) Cymru Steering Group 463 GIS Users have been identified so far in or for Wales. A document containing expert opinion and examples of lessons learnt by other countries who have empowered their geographical information industries will be published. Opportunities for joint geographical information initiatives, which will include potential for building data sharing capacity to reduce duplication of effort, are also being documented. A strategy and action plan will be launched in December 2002.

Further Information

For more details on the full range of current and planned ICT activities in Wales, go to www.cymruarlein.wales.gov.uk or contact 029 208 1025.

6 Sign off last year's action plan

This table summarises the 113 recommendations from the second UK online Annual Report, showing against each whether the action has been completed or is being taken forward by this year's UK online Annual Report. Of the 113 recommendations, 22 are shown as completed. Follow-up action is being taken on the remaining recommendations, which have therefore been taken forward into the UK online Action Plan for 2002/3.

Table 1

Recommendation 1	Action
Take forward an action plan with industry to drive broadband roll-out and take-up	
• Continue to drive forward competitive access to BT's local loop via Local Loop Unbundling (LLU) by: close monitoring of take-up of LLU and the details of implementation, and acting swiftly to resolve new and existing disputes relating to any aspect of LLU.	Subsumed
• Continue to promote competition in retail Digital Subscriber Loop (DSL) by ensuring BT's wholesale DSL services are available on fair and non-discriminatory terms.	Subsumed
• Work to increase competition in DSL by requiring BT to provide interconnection services to enable operators to offer competing DSL services.	Completed
• Work to increase competition in leased lines, used by larger businesses for internet access, by requiring BT to provide partial private circuits (PPCs) at wholesale prices.	Subsumed
• Make more radio spectrum available, opening up the potential for more wireless broadband services.	Subsumed
• Pilot teleworking facilities in UK online centres, exploring different commercial models for engaging the private sector in provision of teleworking space.	Taken forward
• Consider how regional and local portals can best provide a focal point for public sector broadband content.	Subsumed
• Consult with the building industry and broadband service providers to identify the best approach to ensure cable ducting is installed in all new buildings.	Taken forward
• Use fiscal measures to stimulate demand for broadband by: more extensive marketing of the existing measure which allows businesses to offset 100% of ICT investment – including investment in broadband access equipment – against tax in the first year; and encouraging teleworking at home by employees whose employers want to provide them with broadband connectivity, through relaxation of personal benefit taxation.	Taken forward
• Work with the broadband supply industry to facilitate a collaborative campaign to promote the benefits of broadband and give impartial advice on the different technological options available.	Taken forward
• Provide more encouragement to small and medium-sized enterprises (SMEs) to adopt e-commerce solutions.	Subsumed

Table 1 (continued)

Recommendation 1	Action
Take forward an action plan with industry to drive broadband roll-out and take-up	
• Stimulate the market for online content for teaching and learning and enable schools to have access to rich materials, including broadband content, as part of taking forward the Government's proposals for Curriculum Online.	Subsumed
• Develop Culture Online to offer children and adults tailored access to the nation's arts and cultural resources through the internet and other digital channels. This will enable millions more people to engage in cultural activities and will open new opportunities for participation, learning and enhancing skills.	Subsumed
• Introduce broadband support services for health professionals, including development of the National Electronic Library for Health (NeLH).	Taken forward
• Develop an infrastructure to promote blue-skies research in public sector broadband applications. As a first step, we will establish in partnership with the National Endowment for Science, Technology and the Arts (NESTA) a centre of excellence in broadband learning, based at Futurelab in Bristol, and an Industry Placement Scheme to enable small digital content firms to participate in Futurelab.	Completed
• As part of the Department of Trade and Industry's (DTI's) current review of its business support activities, ensure that, where applicable, they meet the needs of the digital content sector.	Taken forward
• Work with the Digital Content Forum to raise the content industry's awareness of the R&D tax credit and how it works, and to intensify marketing of the tax credit as a driver for R&D in the content sector.	Taken forward
• Work in partnership with the digital content sector and other interested parties to stimulate pilots which test different commercial models around broadband content.	Subsumed
• Encourage the telecommunications industry to come forward with specific proposals for broadband infrastructure sharing.	Completed
• Introduce a fast-track, light-touch licensing regime for small transmitting satellite earth stations and a quick online clearance system for new satellite sites.	Taken forward
• Review planning regulations pertaining to satellite terminals to determine how current rules restricting a residential property to a single antenna could be relaxed, while continuing to minimise the environmental/visual impact of residential satellite terminals.	Taken forward
• Task the Office of Government Commerce (OGC) to consider what they can do to help Government departments procure broadband more effectively, including acting as a source of guidance on broadband procurement.	Subsumed
• Draw up detailed departmental communications and IT expenditure plans, as part of the 2002 Spending Review.	Completed
• Establish a Broadband Brokerage Service pilot, initially in one region.	Completed
• Promote further competition in mobile telephony.	Taken forward

Table 2

Recommendation 2	Action
Modernise the regulatory and legal framework in the UK to meet the needs of e-commerce	
• Introduce legislation to establish a single regulator for the communications sector: the Office of Communications (OFCOM).	Subsumed
• Continue to co-ordinate the use of the Electronic Communications Act Section 8 order-making power and ensure progress in its use by departments for the electronic delivery of services and the removal of statutory barriers to e-commerce.	Taken forward
• Identify where regulatory regimes may need to be modernised to ensure that they remain relevant to changes brought about by the internet.	Taken forward
• Sponsor and disseminate e-business research and analysis: publish overview of sectoral impact of e-commerce.	Taken forward

Table 3

Recommendation 3	Action
Promote a secure environment for e-commerce	
• Complete the implementation of the Regulation of Investigatory Powers Act 2000 during 2002 and continue to consult with business to ensure the legislation is protecting public safety without impeding the development of e-commerce.	Taken forward
• Develop and promulgate by December 2001, principles designed to help policy makers ensure that legislative proposals do not affect e-commerce adversely, by providing a tool to analyse the impact that local, national and international policy decisions and legislative proposals may have on e-commerce.	Completed

Table 4

Recommendation 4	Action
Take action with international partners to develop an effective, light-touch global framework for e-commerce	
• Conclude memoranda of understanding with Australia, Canada and New Zealand in 2002.	Taken forward
• Implement the eEurope action plan.	Taken forward
• Promote adoption internationally of: 'country of origin' principle; co-regulatory approach; alternative dispute resolution mechanisms for e-commerce.	Taken forward
• Press for a transparent and liberal e-commerce framework.	Taken forward
• Take international lead in updating tax regime.	Taken forward

Table 5

Recommendation 5	Action
Work to integrate all Government Internet access initiatives into one UK online-branded programme	
• Work with industry to enhance awareness and uptake of the incentive for PC leasing schemes and, in the light of that partnership, to evaluate the effectiveness of those incentives and if necessary make recommendations for further Government action to encourage employers to introduce leasing schemes for their employees.	Subsumed
• Take forward its commitment to explore a leasing scheme to make top-quality ICT hardware available to pupils and teachers at very low prices.	Subsumed
• Drawing on evidence from the Wired Up Communities pilots, consider the costs and benefits of offering those in other groups (e.g. those with low incomes) the opportunity to lease internet access devices.	Subsumed
• Work with key players in the public and private sector to develop a comprehensive action plan to maximise the benefits of digital television (DTV) which will be published by February 2002.	Subsumed
• Initiate a formal review of progress towards switchover since the the Department for Culture, Media and Sport (DCMS) announced in September 1999 the criteria to be met before switching off analogue terrestrial transmissions could be considered.	Subsumed
• Consider the Viewers' Panel report on consumers' view of progress and Panel recommendations. Report to be published later this year.	Completed
• Pilot new initiatives in Post Offices to help people access and use the internet.	Completed

Table 6

Recommendation 6	Action
Complete the network of 6,000 UK online centres by the end of 2002 and encourage improvements in the range and quality of UK online services offered by centres, and work with the voluntary and community sector to bridge the digital divide	
• Continue to develop the network of UK online centres, and as part of this, work with UK online centres to help them develop sustainability strategies by examining their potential to be: a gateway to basic skills training and a pathway to more structured learning (e.g. learndirect); a signpost to services aimed at small businesses (e.g. UK online for business); an introduction to e-Government services (e.g. through ukonline.gov.uk); points of access to new media-rich broadband services; and part of a pilot programme, in partnership with the private sector, to test the feasibility of a national network of teleworking centres.	Completed
• Publish the report of a major survey of the ICT needs of the voluntary and community sector to inform future policy on ICT-related assistance to the sector.	Completed
• Based on the above report and further consultation with the sectors, develop a strategy, as part of the wider UK online campaign, to encourage the development of ICT skills in the sector and the sector's capacity to produce high quality internet content.	Subsumed
• Establish e-awards for the voluntary and community sector to recognise and promote best practice.	Completed
• Commence discussions with the sector on whether to establish an additional Code of Good Practice to the Compact on ICT matters.	Completed
• Consider how best to raise the capacity of UK online centres to support the development of locally-inspired community content and how this might be linked to the development of local and regional portals.	Subsumed

Table 7

Recommendation 7	Action
Support a local and national advertising and marketing campaign both to raise awareness of the benefits of the Internet and to signpost non-users to UK online services	
• Continue to support the UK online brand, with a new campaign starting in November 2001.	Subsumed
• Ensure that UK online communications and marketing raises awareness of all of its internet access initiatives by integrating all existing and any new initiatives into one UK online-branded programme.	Subsumed
• Hold a review of the UK online campaign's impact.	Completed

Table 8

Recommendation 8	Action
Recognise ICT as a basic skill and continue working to embed ICT in the education system and throughout lifelong learning	
• Recognise ICT literacy as a basic skill and audit existing and future programmes to ensure that they support basic ICT skills training.	Subsumed
• Investigate barriers to the development and availability of high quality cultural content.	Subsumed

Table 9

Recommendation 9	Action
Continue working with industry to help people trust the internet	
• Undertake a publicity campaign on safe internet shopping, working with the private sector, in the run-up to Christmas, to encourage consumers to shop online by explaining how they can do so safely.	Subsumed
• Raise awareness of the national consumer complaints and enquiries website launched by Midcots Trading Standards services in October this year.	Completed
• Work with the EU to develop the European Extra-Judicial Network (EEJ-Net), following the launch of its pilot phase in October.	Subsumed
• Launch public consultations on these frameworks early in 2002, setting out the barriers to wider use of trust services amongst businesses and citizens, and explaining the action the Government will take to overcome these barriers.	Subsumed
• Review the many applications of smart cards and other smart tokens within the UK, developing policy to maximise the benefit from these schemes and ensuring that they can be used to simplify authentication mechanisms, making secure electronic transactions available to all who want to use them.	Subsumed
• Continue the Outreach Programme, run by the National Infrastructure Security Co-ordination Centre (NISCC) with owners of systems supporting critical services in the private sector, and in Government, and to expand the programme as resources permit.	Taken forward
• Continue to promote international co-operation on these issues, particularly by using Computer Emergency Response Teams (CERTs), plus other appropriate organisations.	Taken forward
• Continually assess the threat, provide information on it, and issue alerts and warnings to its Critical National Infrastructure (CNI) clients. NISCC will post significant items on its website (www.niscc.gov.uk), or otherwise draw attention to them for a more general audience. NISCC will also consider whether developing any new fora could assist with these tasks.	Taken forward

Table 9 (continued)

Recommendation 9	Action
Continue working with industry to help people trust the internet	
• Continue to raise awareness, amongst UK companies, of the need for information security and continue to promote information security best practice through BS ISO/IEC 17799.	Taken forward
• Continue to promote information security through international fora. The UK has participated in the work to update the OECD security guidelines and make them more relevant to the information age. These will be published shortly before the anniversary of the 11 September disasters.	Taken forward
• Deliver a public awareness campaign on internet safety relating to chat room use from December 2001.	Completed
• Publish a National Hi-Tech Crime Strategy by summer 2002.	Subsumed
• Consult stakeholders on specific measures for tackling 'grooming'.	Taken forward
• Work with industry to promote the TrustUK hallmark for e-commerce websites.	Subsumed
• Promote tScheme.	Taken forward

Table 10

Recommendation 10	Action
Undertake a sustained, high-profile marketing and communications strategy on relevant sources of advice and information for businesses	
• Undertake a sustained, high-profile marketing and communications strategy that develops a simple, compelling message with supporting PR campaigns, generation of case studies, and sign-posting to relevant sources of advice and information.	Subsumed

Table 11

Recommendation 11	Action
Place greater emphasis on sector-specific activities, building on the series of sector impact studies	
• Place greater emphasis on sector-specific activities, building on the series of sector impact studies. These will help generate further pioneering activities sponsored by UK online for business and the relevant Directorates, which can then be applied to a wider audience within the sector as learning hubs or examples of good/best practice.	Subsumed

Table 12

Recommendation 12	Action
Develop generic content on cross-cutting themes relevant to all sectors	
• Develop generic content on cross-cutting themes relevant to all sectors which will identify the strategic and organisational issues that lie at the heart of transforming existing practices and exploiting the benefits of the technologies, which can then be applied throughout industry.	Subsumed

Table 13

Recommendation 13	Action
Launch a redesigned web environment at the heart of UK online for business	
• Launch a redesigned web environment at the heart of UK online for business that acts as a portal into each element of these sector-specific activities and generic areas of work.	Taken forward

Table 14

Recommendation 14	Action
Work with industry to develop a UK strategy for m-commerce	
• Develop a strategy for secure, innovative introduction of m-commerce.	Taken forward

Table 15

Recommendation 15	Action
Refine analysis of customer groupings and carry out customer needs analyses and the Office of the e-Envoy will work with departments to introduce e-business strategies for key customer segments	
• Ensure that departments develop online services based on customer consultation and an understanding of customers' needs.	Subsumed
• Improve departments' understanding of the pattern of service provision which will be most useful for different groups of customers.	Taken forward

Table 16

Recommendation 16	Action
Ensure there is a strategy, with a measurable baseline, to maximise take-up of e-services	
• Develop Government venturing to develop innovative approaches to online service delivery.	Subsumed
• Develop and implement realistic take-up targets for online services.	Taken forward
• Build on the work of the local authority pathfinders in the following years.	Taken forward
• Build on the work of the Implementing Electronic Government Statements to see how these support the national agenda.	Subsumed
• Encourage greater involvement by local authorities in the emerging national projects and standards frameworks.	Subsumed
• Build a national strategy for local government which will help to guide the agenda and to identify those services which the public feel will make the most significant difference to their experience with all tiers of Government.	Completed
• Identify and remove the barriers to the widespread take-up of authentication services by individuals and business users. In particular, we will work with industry to promote the critical importance of authentication and security for enabling e-business and e-Government.	Taken forward

Table 17

Recommendation 17	Action
Re-engineer departmental business processes to fully exploit new technologies	
• Take forward a range of joined-up projects, firmly based on customer needs analysis.	Subsumed
• Provide greater integration and personalisation of Government websites within the ukonline.gov.uk framework.	Taken forward
• Develop the ‘life episodes’ approach based on ‘trigger events’ that will be tailored to individuals.	Completed

Table 18

Recommendation 18	Action
Ensure that key transactional services are e-enabled via the Government Gateway	
• Develop a single payments engine, allowing bills generated by Government departments to be settled online within a secure environment.	Taken forward
• Develop a two-way e-mail environment allowing secure communication with Government departments.	Completed
• Develop the ability to request downloads of documents such as tax statements.	Completed
• Work with trust service providers to ensure interoperability with Government.	Subsumed

Table 19

Recommendation 19	Action
Drive forward citizen participation in democracy	
• Redesign Citizen Space on ukonline.gov.uk. The proposal is to turn it into a showcase example for e-democracy, providing an improved set of electronic fora designed to enhance public participation.	Taken forward
• Promote online participation across central Government. The proposal is to include online participation in departments' e-business strategies and to develop Award Schemes with an e-democracy focus.	Taken forward
• Develop a detailed plan for implementation of electronic voting. The proposal is to develop a detailed plan for implementation based on the research project and electronic registration project currently undertaken, and results from e-voting pilots in local elections in 2002.	Taken forward

Table 20

Recommendation 20	Action
Further develop a cross-Government knowledge management system	
• Exploit the step change in capacity for cross-Government communications, collaboration and knowledge management that the Knowledge Network infrastructure is putting in place for the UK Government.	Subsumed
• Complete the introduction of a complementary Government-wide local and regional knowledge-sharing system.	Taken forward
• Introduce a new system for the Performance and Innovation Unit (PIU) to enable online 'evidence-based' policy-making to be developed through web-based collaborative working between PIU staff, officials in other departments and key players in academia and the wider policy community.	Completed
• Begin the drive to online community-based working amongst key operational groups throughout Government, beyond their departmental silos – including Public Expenditure Guidance, Regulatory Impact Unit and the Government Legal Service.	Taken forward
• Trial real-time messaging and electronic communications – including web-based 'sametime' working at the desktop – between officials.	Taken forward
• Supplement the proposed modernisation and improvement in working practices with a robust and well-researched policy framework for knowledge management in the UK Government.	Taken forward
• Conduct an international benchmarking and comparator research study of trends, capability and activity in knowledge management by overseas governments and public sector bodies.	Taken forward

Table 21

Recommendation 21	Action
Continue to drive forward e-procurement and e-tendering	
• Run innovative pilot e-procurement projects.	Completed

Table 22

Recommendation 22	Action
Implement a strategy to make the UK the number one for the supply of high-level ITEC skills	
• Invest at least £8 million to drive forward the ITEC skills strategy.	Taken forward
• Facilitate links between the ITEC sector, universities and other sectors of the economy.	Completed
• Co-ordinate community-based IT access and skills initiatives at national, regional and local level, working with e-Minister, e-Envoy and local DCMS Ministers.	Taken forward
• Encourage Government Offices in England and Wales to co-ordinate implementation of these initiatives at local and regional level, reporting on progress to the Parliamentary Under Secretary of State (PUS) every six months.	Taken forward
• Implement a strategy to make the UK the number one for the supply of high-level ITEC skills.	Subsumed

Table 23

Recommendation 23	Action
Implement an action plan for growth for the digital content sector, including through liberalised access to Government information	
• Work with industry to implement the action plan, reviewing progress with the Digital Content Forum.	Taken forward
• Public information made available in digital form.	Taken forward

Table 24

Recommendation 24	Action
Secure international agreement to a common framework for measuring e-commerce	
• Agree a core set of common questions.	Taken forward

Table 25

Recommendation 25	Action
Improve e-commerce measurement in the UK	
• Improve measurement of Government use.	Taken forward
• Improve measurement of ITEC sectors.	Taken forward
• Improve measurement of telecoms/Internet access costs.	Taken forward

Table 26

Recommendation 26	Action
Implement a programme to evaluate the net economic impact of e-commerce	
• Undertake the first economic impact study of e-commerce.	Taken forward

7 This year's action plan

The UK online strategy

This table summarises each of the recommendations made in this Annual Report, listed under Government, Business and People. Those recommendations in italics were contained in last year's Annual Report and have been taken forward, where these have not been subsumed within the new recommendations. Last year's numbering is shown in square brackets.

Business	Action
1. Our goal is to develop the UK as a world leader for electronic business	
The Government will: • transform businesses; • develop broadband; • support the framework; • increase productivity through skills.	1.1 DTI will provide support to companies in their ongoing adoption of ICT through the work of UK online for business. 1.2 Oftel will review the broadband market and, by July 2003, decide what regulatory obligations should be imposed as part of the process of implementing the new EC regulatory framework. 1.3 Oftel will continue to drive forward access to BT's network, facilitating flourishing competition among broadband service providers and a wider choice of attractive broadband services for end-users. 1.4 Oftel will ensure that partial private circuits are provided on cost-oriented terms subject to reasonable service level agreements, which will allow for flourishing competition in the retail markets for leased lines. 1.5 Oftel will continue to benchmark the costs of dial-up and broadband internet access in the UK against the costs in leading competitor countries. 1.6 The Radiocommunications Agency will continue to develop a number of frequency bands to extend the possibilities for delivering broadband services by wireless. 1.7 DTI and OGC will set up a new UK Broadband Taskforce that will seek to stimulate the roll-out and take-up of broadband across the UK, particularly in rural and remote areas, and ensure that the public sector procurement of broadband has the maximum impact on regional economic development. 1.8 DTI and OGC will host a major broadband conference on 20-21 November 2002, in collaboration with the Broadband Stakeholder Group, in order to bring together those engaged in helping build broadband Britain. 1.9 The Government will invest over £1bn in 2003-2006 in broadband connectivity for public services. 1.10 OGC will work through the UK Broadband Taskforce to make public sector broadband procurement more effective.

Business	Action
	1.11 DfES will review at a national level their procurement strategy for broadband with the aim of ensuring best value for money for schools' procurement of broadband.
	1.12 OGC.bs will establish new framework contracts to allow public sector organisations to procure broadband efficiently and advantageously, without having to negotiate terms and conditions for each purchase. The frameworks will be awarded early next financial year.
	1.13 DTI will continue to investigate possibilities for pilot projects around such issues as digital rights management and micro-payments.
	1.14 DTI and DCMS will jointly continue to work towards the creation of a new regulatory framework for the communications sector, bringing together the functions of the Independent Television Commission (ITC), Oftel, the Radio Authority, the Broadcasting Standards Commission and the Radiocommunications Agency in a single body, OFCOM, with a strategic overview of the whole sector.
	1.15 HM Customs & Excise will actively consult with businesses on the details of implementing changes to the VAT playing field in order to clarify the definition of electronic services covered by that Directive and also on a pragmatic approach which will minimise burdens on business.
	1.16 HM Customs & Excise will work closely with international partners and business at the OECD to ensure a consistent world-wide approach for the collection of consumption taxes on electronically supplied services.
	1.17 The UK Patent Office will implement the EC Copyright Directive and continue to work with Community partners to ratify the WIPO treaties.
	1.18 The UK Patent Office will engage in the implementation of recommendations made by the Intellectual Property Group of the Creative Industries Task Force, aimed at gauging current levels of consumer awareness, developing strategies for raising these, and embedding an appreciation of IP in our schools and universities.
	1.19 The UK Patent Office will explore the common ground relating to intellectual property rights between business, enforcement bodies and consumers through the work of the Counterfeiting and Piracy Forum.
	1.20 DTI will consult on its proposals for the reform of the 1974 Consumer Credit Act to permit consumer credit agreements to be made online.

Business	Action
	1.21 DfES will consult on a section 8 order to allow statutory notices to be sent to parents electronically, subject to their consent.
	1.22 LCD will make a section 8 order to authorise electronic contracts for the transfer of interests in land when legislation has been put in place to provide for the electronic payment of stamp duty. This order will form part of the legal framework for electronic conveyancing, for which the foundation was laid in the Land Registration Act 2002.
	1.23 DTI will consult in early 2003 on how to implement the new rules on data protection and privacy, aimed at creating a fair and effective sectoral privacy framework which gives users and service providers confidence about their respective rights and obligations.
	1.24 The Home Office will publish a consultation document before the end of 2002 on proposals for access to communications data in the context of striking the right balance between respecting individual privacy and serving society's interest in investigating crime and protecting the public.
	1.25 DTI will assess the UK's current performance in the supply of advanced ICT and related skills and the application of these skills to drive productivity and competitiveness, seeking to identify suitable performance indicators and, working with the Sector Skills Councils and other partners, seeking to improve the UK's performance against leading competitor nations.
	1.26 DTI and DfES will encourage the use by business and education of common ICT job profiles and the SFIA skills classifications framework.
	1.27 DTI will work to improve awareness and demand amongst employers for ICT and e-business training and workforce development.
	1.28 DTI and DfES will work to improve the diversity and equality of opportunity in the ICT workforce by increasing the proportion of women who enter and remain in ICT employment.
	1.29 Pilot teleworking facilities in UK online centres, exploring different commercial models for engaging the private sector in provision of teleworking space. [1.6]
	1.30 Consult with the building industry and broadband service providers to identify the best approach to ensure cable ducting is installed in all new buildings. [1.8]
	1.31 Use fiscal measures to stimulate demand for broadband. [1.9]

Business	Action
	1.32 Work with the broadband supply industry to facilitate an industry-wide collaborative campaign to promote the benefits of broadband and give impartial advice on the different technological options available. [1.10]
	1.33 Introduce broadband support services for health professionals, including development of the National Electronic Library for Health (NeLH). [1.14]
	1.34 As part of DTI's current review of its business support activities, ensure that, where applicable, they meet the needs of the digital content sector. [1.16]
	1.35 Work with the Digital Content Forum to raise the content industry's awareness of the R&D tax credit and how it works, and to intensify marketing of the tax credit as a driver for R&D in the content sector. [1.17]
	1.36 Introduce a fast-track, light-touch licensing regime for small transmitting satellite earth stations and a quick online clearance system for new satellite sites. [1.20]
	1.37 Review planning regulations pertaining to satellite terminals to determine how current rules restricting a residential property to a single antenna could be relaxed, while continuing to minimise the environmental/visual impact of residential satellite terminals. [1.21]
	1.38 Promote further competition in mobile telephony. [1.25]
	1.39 Continue to co-ordinate the use of the Electronic Communications Act Section 8 order-making power and ensure progress in its use by departments for the electronic delivery of services and the removal of statutory barriers to e-commerce. [2.2]
	1.40 Identify where regulatory regimes may need to be modernised to ensure that they remain relevant to changes brought about by the Internet. [2.3]
	1.41 Sponsor and disseminate e-business research and analysis: publish overview of sectoral impact of e-commerce. [2.4]
	1.42 Complete the implementation of the Regulation of Investigatory Powers Act 2000 during 2002 and continue to consult with business to ensure the legislation is protecting public safety without impeding the development of e-commerce. [3.1]
	1.43 Conclude memoranda of understanding with Australia, Canada and New Zealand in 2002. [4.1]

Business	Action
	1.44 Implement the e-Europe action plan. [4.2]
	1.45 Promote adoption internationally of: 'country of origin' principle; co-regulatory approach; alternative dispute resolution mechanisms for e-commerce. [4.3]
	1.46 Press for a transparent and liberal e-commerce framework. [4.4]
	1.47 Take international lead in updating tax regime. [4.5]
	1.48 Continue to raise awareness, amongst UK companies, of the need for information security and continue to promote information security best practice through BS ISO/IEC 17799. [9.9]
	1.49 Continue to promote information security through international fora. [9.10]
	1.50 Consult stakeholders on specific measures for tackling 'grooming'. [9.13]
	1.51 Promote tScheme. [9.15]
	1.52 Launch a redesigned web environment at the heart of UK online for business that acts as a portal into each element of these sector-specific activities and generic areas of work. [13.1]
	1.53 Develop a strategy for secure, innovative introduction of m-commerce. [14.1]
	1.54 Invest at least £8 million to drive forward the ITEC skills strategy. [22.1]
	1.55 Co-ordinate community-based IT access and skills initiatives at national, regional and local level, working with e-Minister, e-Envoy and local DCMS Ministers. [22.3]
	1.56 Encourage Government Offices in England and Wales to co-ordinate implementation of these initiatives at local and regional level, reporting on progress to the Parliamentary Under Secretary of State (PUS) every six months. [22.4]
	1.57 Work with industry to implement the action plan, reviewing progress with the Digital Content Forum. [23.1]
	1.58 Public information made available in digital form. [23.2]
	1.59 Agree a core set of common questions. [24.1]
	1.60 Improve measurement of Government use. [25.1]
	1.61 Improve measurement of ITEC sectors. [25.2]
	1.62 Improve measurement of telecoms/internet access costs. [25.3]
	1.63 Undertake the first economic impact study of e-commerce. [26.1]

Government	Action
2. Our goal is to make all Government services available electronically by 2005 with key services achieving high levels of use.	
The Government will: • transform Government; • make Government more customer focused; • transform the efficiency of Government itself.	2.1 OeE will develop a longer term vision (beyond 2005) for e-Government and public services more generally and consider how this might be delivered. 2.2 OeE, in partnership with other departments, will develop a core e-Delivery Programme. 2.3 OeE, in partnership with other departments, will manage cross-cutting e-Government risk, monitor progress and measure impact through the e-Government Delivery Programme Board, chaired by the e-Envoy. 2.4 ODPM, in partnership with OeE and central and local Government bodies, will publish a comprehensive national strategy for local e-government. 2.5 LCD will launch a second round consultation on the Public Services Trust Charter. 2.6 OeE will continue to work to define a common security standard for e-Government service delivery. 2.7 OeE will continue to promote trust in public sector information systems. 2.8 OeE will encourage the widespread availability and use of authentication services. 2.9 OeE will share leading practice on channel deployment in public sector bodies on Govtalk. 2.10 OeE will reconstitute the working group created for the development of the Channels Framework to monitor and oversee co-ordination between channel strategies. 2.11 OeE will identify opportunities for channel co-operation with other public sector organisations using the working group as a channel for communication. 2.12 OeE will develop content guidelines to assist organisations with issues of formatting content on devices. 2.13 OeE will promote awareness of the benefits that delivery of e-Government services over DTV can bring. 2.14 OeE will publicly consult on the DTV policy framework. 2.15 OeE will continue to develop and deliver a citizens' portal on DTV (UK online interactive), providing a one-stop-shop for Government services. 2.16 OeE will drive forward a smart card programme to improve the efficiency and effectiveness of smart card schemes with the public sector. 2.17 OeE will develop an e-democracy charter, taking into account any comments received via the e-democracy consultation, which will clearly set out the basis on which a Government e-participation process is taking place.

Government	Action
	2.18 ODPM will procure the e-voting facilities and services to support further local election pilot schemes.
	2.19 OeE and the Treasury will consider the case for developing guidance, addressing the appraisal of risks involved in realising the benefits from e-delivery projects and potential to divert resources from traditional channels.
	2.20 OeE will work with delivery organisations to develop evidence based take-up strategies for key services.
	2.21 OeE will facilitate a mixed economy for the delivery of public services.
	2.22 The Home Office and OeE will develop an ICT investment strategy for the VCS.
	2.23 The Home Office will establish a portal to provide comprehensive interactive information on Government funding for the VCS to be completed by March 2004.
	2.24 OeE will set standards and provide coherence across Government systems.
	2.25 OeE will implement the 'Next Steps' of the Open Source Software policy.
	2.26 OeE will develop a pan-Government toolbar.
	2.27 OeE will build a notification engine for the Government Gateway.
	2.28 OeE will build a way of logging into the Government Gateway with mobile phones.
	2.29 OeE will procure and build a full secure mail system for the Government Gateway.
	2.30 OeE will continue to work with digital certificate providers to increase the number of Gateway compatible certificates.
	2.31 OGC will procure the next generation of GSI services.
	2.32 OeE will continue to develop cross-Government knowledge management systems.
	2.33 OeE will award a contract for the Data Centre Hosting project in March 2003; for a go-live date of mid-2003.
	2.34 Continue the Outreach Programme, run by the National Infrastructure Security Co-ordination Centre (NISCC) with owners of systems supporting critical services in the private sector, and in Government, and to expand the programme as resources permit. [9.6]
	2.35 Continue to promote international co-operation on these issues, particularly by using Computer Emergency Response Teams (CERTs), plus other appropriate organisations. [9.7]
	2.36 Continually assess the threat, provide information on it, and issue alerts and warnings to its Critical National Infrastructure (CNI) clients. [9.8]

Government	Action
	2.37 Improve departments' understanding of the pattern of service provision which will be most useful for different groups of customers. [15.2]
	2.38 Develop and implement realistic take-up targets for online services. [16.2]
	2.39 Build on the work of the local authority pathfinders in the following years. [16.3]
	2.40 Identify and remove the barriers to the widespread take-up of authentication services by individuals and business users. In particular working with industry to promote the critical importance of authentication and security for enabling e-business and e-Government. [16.7]
	2.41 Provide greater integration and personalisation of Government websites within the ukonline.gov.uk framework. [17.2]
	2.42 Develop a single payments engine, allowing bills generated by Government departments to be settled online within a secure environment. [18.1]
	2.43 Redesign Citizen Space on ukonline.gov.uk. The proposal is to turn it into a showcase example for e-democracy, providing an improved set of electronic fora designed to enhance public participation. [19.1]
	2.44 Promote online participation across central Government. [19.2]
	2.45 Develop a detailed plan for implementation of electronic voting. [19.3]
	2.46 Complete the introduction of a complementary Government-wide local and regional knowledge-sharing system. [20.2]
	2.47 Begin the drive to online community-based working amongst key operational groups throughout Government, beyond their departmental silos – including Public Expenditure Guidance, Regulatory Impact Unit and the Government Legal Service. [20.4]
	2.48 Trial real-time messaging and electronic communications – including web-based 'sametime' working at the desktop – between officials. [20.5]
	2.49 Supplement the proposed modernisation and improvement in working practices with a robust and well-researched policy framework for knowledge management in the UK Government. [20.6]
	2.50 Conduct an international benchmarking and comparator research study of trends, capability and activity in knowledge management by overseas governments and public sector bodies. [20.7]

People	Action
3. Our goal is to ensure that everyone who wants it has access to the internet by 2005.	
The Government will: • raise awareness of the internet; • promote affordable internet access at home, at work, on the move and in the community; • improve ICT skills; • build trust in the internet.	3.1 OeE will build on the success of the 'Let's all get on' campaign and deliver a major campaign in 2003 to encourage people, particularly socially excluded groups, to get online and promote more sophisticated usage by existing users. 3.2 OeE will deliver a range of partner marketing relationships with private, public and voluntary sector bodies, as well as consumer brands which reach our target audiences. 3.3 OeE will develop e-mentoring support materials in 2003 to help experienced ICT users encourage those who are new to the internet. 3.4 OeE will continue to provide a telephone helpline and contact point offering details of the nearest UK online centre and general information about getting started on the internet. 3.5 DCMS will continue to stimulate the production of relevant and motivational content to new and existing users, developing up to 30 new projects by June 2004. 3.6 NOF-Digitise will continue to develop digital learning materials consisting of well over 1 million images, tens of thousands of audio and video clips, innumerable pages of text and many hundreds of new learning packages being made available by the end of 2004. 3.7 OeE will develop guidance on the annual tax benefit, introduced by the Finance Act 1999, on loaned PCs in order to promote home PC ownership. The guidance will be delivered by July 2003. 3.8 DfES will, in parallel, use the evaluation of the Wired Up Communities initiative to analyse the costs and benefits of offering home internet access device leasing schemes for the public. 3.9 OeE will revise guidance for the Civil Service by October 2003 on the use and benefits of the internet. 3.10 DfES, DCMS and OeE will support UK online centres to develop sustainability strategies. This will include working with centres to deliver e-Government services and exploring the possibility of increasing the number of centres delivering learndirect courses. 3.11 DfES will continue to develop the Cybrarian service to be piloted during Autumn 2003.

People	Action
	3.12 DfES will continue to roll-out ICT infrastructure in schools, with the aim of achieving PC ratios of 1:8 in primary and 1:5 in secondary by 2004. DfES will also continue to explore plans to make ICT hardware available to pupils in the home through leasing schemes.
	3.13 DfES will fund and take forward a scoping study for a version of Curriculum Online for the post 16 sector, under the working title of 'College Online', to be completed by March 2003.
	3.14 DfES will continue to develop the Adult Learners Portal, due to go live in April 2003.
	3.15 DfES will, together with key partners, complete the UK online introductory offer pilot by March 2003, with a view to rolling this out across centres by Summer 2003. For the pilot stage this will be called UK online first step.
	3.16 DfES will continue to work with others, including the Learning and Skills Council, towards adding ICT to the Skills for Life strategy to provide coherence to the initiatives already in place and to add momentum to this vital area of national development.
	3.17 DTI will carry out further work on the safe internet shopping campaign starting in November 2002.
	3.18 DTI will continue to work closely with the European Commission and Member States to develop the systems and procedures necessary for EEJ-NET to become fully operational – in liaison with UK stakeholders – by Summer 2003.
	3.19 DTI will work with business, consumer and regulatory organisations to ensure by the end of 2002 that the code approval activities of TrustUK mesh with the Office of Fair Trading's new approach to consumer codes of practice.
	3.20 DTI will conclude memoranda of understanding with Australia, Canada and New Zealand by the end of 2002, and play a major role in the development, with OECD member countries, of a multilateral framework for consumer law enforcement co-operation by Spring 2003.
	3.21 The Home Office will produce an e-Crime Strategy in Spring 2003.
	3.22 The Home Office will, together with the Task Force on Child Protection on the internet, run a further campaign by Spring 2003.
	3.23 The Home Office will assess the need for more consumer-facing internet based information on internet crime by Summer 2003.

8 Glossary

@TEB accredited	Technology Means Business accreditation issued to business advisors
ACETS	Afro-Caribbean Education & Training Services
ADR	Alternative Dispute Resolution
ADSL	Asymmetric Digital Subscriber Loop. A type of DSL
AGI	Association for Geographic Information
APHIS	Animal and Public Health Information System
ATCS	The Anti-Terrorism, Crime and Security Act 2001
B2B	Business to Business. Information society service
B2C	Business to Consumer. Information society service
Bandwidth	A measure of the amount of electronic data that can be transmitted, either down a telephone line or through an individual radio channel. The broader the bandwidth, the quicker the information can be transmitted
BFWA	Broadband Fixed Wireless Access
Broadband	A class of transmission system which allows large amounts of data to be transferred at high speed. See bandwidth
BSG	Broadband Stakeholder Group
BskyB	British Sky Broadcasting
BT	British Telecommunications plc
BWA	Broadband Wireless Access
CBI	Confederation of British Industries
CBT	Computer Based Training
CNI	Critical National Infrastructure
CSP	Communications Service Provider
CSSA	Computer and Software Services Association
Cybrarian	Customised internet search facility to facilitate access to the Internet
DA	Devolved Administration
DCF	Digital Content Forum
DCMS	Department for Culture, Media and Sport (UK Government Department)
DEL	Department for Employment and Learning (Northern Ireland Government Department)
DETI	Department of Enterprise, Trade and Investment (Northern Ireland Government Department)
DfES	Department for Education and Skills (UK Government Department)
DoH	Department of Health (UK Government Department)

Digital TV	Television broadcasts using digital technology. Far more efficient use of radio spectrum enables a larger number of channels and supplementary data services to be broadcast
DotP	Delivering on the Promise. A central infrastructure designed to host multiple government websites
DSL	Digital Subscriber Loop. A technology that enables higher bandwidth communications to be passed through conventional telephone lines
DTI	Department of Trade and Industry (UK Government Department)
DTV	See Digital TV
DWP	Department for Work and Pensions (UK Government Department)
EC	European Commission
EDI	Electronic Data Interchange
EEA	European Environment Agency
EEJ-Net	European Extra-Judicial Network. An EU ADR scheme
e-GDP	e-Government Delivery Programme
e-GIF	e-Government Interoperability Framework. Sets out policies and standards for connectivity and the seamless flow of information across the public sector
e-GMF	Metadata Framework. Sets out tagging and categorisation of information policies
ELFNI	Electronic Libraries for Northern Ireland (Northern Ireland)
ELWA	Education & Learning Wales (Wales)
email	Electronic mail
ERDF	European Regional Development Fund
ESD	Electronic Service Delivery
EU	European Union
Extranet	A ‘closed’ network, accessible only to certain organisations or individuals, that operates using internet technology
FCO	Foreign and Commonwealth Office (UK Government Department)
Fixed-link	Telecommunications using a cable, fibre or point-to-point radio link, rather than mobile telephony
G7	The group of seven most highly industrialised nations
GIS	Geographical Information Systems
Government Gateway	Authentication and routing engine used to register online government services
GPC	Government Procurement Card
GRO	General Register Office (Northern Ireland)
GSI	Government Secure Intranet

Hacking	The process of gaining access to private data or systems, without permission from their owner, typically using the internet
HIE	Highlands and Islands Enterprise. An Enterprise Network used as a mechanism for delivery of e-commerce assistance in Scotland
HMCE	Her Majesty's Customs and Excise (UK Government Department)
HMSO	Her Majesty's Stationery Office (UK Government Agency)
HMT	Her Majesty's Treasury (UK Government Department)
HOWIS	Web-based service providing information on health and lifestyle of the people of Wales, performance, management and development of the NHS, provision and availability of services and the evidence base of health care to users throughout the NHS in Wales
HPSS	Health and Personal Social Services
HSE	Health and Safety Executive (UK Government Agency)
IAI	Information Age Initiative (Northern Ireland)
IAP	Information Age Partnership: a DTI initiative bringing together the main UK industry players in the UK
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	Information and Communications Technology
IDA	Interchange of Data between Administrations (European Commission)
IDB	Industrial Development Board (Northern Ireland)
LEDU	Local Enterprise Development Unit (Northern Ireland)
IRTU	Industrial Research and Technology Unit (Northern Ireland)
NITB	The Northern Ireland Tourist Board (Northern Ireland)
IECRC	International E-Commerce Research Centre based at De Montfort University
IEG	Implementing Electronic Government Statements
Internet	'Open' network allowing exchange of data – as opposed to a 'closed' system such as an extranet
IPR	Intellectual Property Rights
IPVPN	Internet Protocol Virtual Private Network
IR	Inland Revenue (UK Government Department)
ISDN	Integrated Services Digital Network
ISP	Internet Service Provider
ISPA	Internet Service Providers Association
ITC	Independent Television Commission (UK Government Statutory Body)
IWF	Internet Watch Foundation. Non-governmental UK organisation set up to combat illegal content on the internet

JANet	Joint Academic Network
KN	Knowledge Network
LCD	Lord Chancellor's Department (UK Government Department)
LGOL	Local Government Online programme
LION	Legal Online Information System
Local loop	The last part of a fixed-link telecommunications network that connects to a subscriber's home or business
Bps	Bits per Second (Unit of digital bandwidth)
Hz	Hertz (Unit of analogue bandwidth)
m-Commerce	e-commerce over mobile telecommunications networks
Metadata	A summary of information about the form and content of a resource
MGF	Modernising Government Fund
mini-DSLAMs	New, smaller ADSL exchange equipment designed to deliver ADSL from small exchanges where it would not otherwise be commercially viable
MoD	Ministry of Defence (UK Government Department)
Modem	A device attached to a PC which enables it to communicate using the internet or other data network
MORI	Market & Opinion Research International
MSN	Microsoft Network
NACAB	National Association of Citizens' Advice Bureaux
NCC	National Computing Centre
NCIS	National Criminal Intelligence Service (UK Government Agency)
NDPB	Non-departmental public body
NGfL	National Grid for Learning
NHS	National Health Service (UK Government Agency)
NOF	New Opportunities Fund
ODPM	Office of the Deputy Prime Minister (UK Government Department)
OECD	Organisation of Economic Co-operation and Development
OeE	Office of the e-Envoy (UK Government Department)
OFCOM	Office of Communications (Proposed UK Government Statutory Body
OFTEL	Office of Telecommunications Regulation (UK Government Statutory Body)
OGC	Office of Government Commerce (UK Government Agency)
OGC.bs	Office of Government Commerce Buying Solutions (OGC's trading arm)
ONS	Office of National Statistics (UK Government Agency)

OSS	Open Source Software
PC	Personal computer
PFI/PPP	Private Finance Initiative/Public Private Partnership
PIAPs	Public Internet Access Points
PKI	Public Key Infrastructure. A system that allows individuals and businesses to use Public Key Cryptography
Public Key Cryptography	A system for encrypting data sent over the internet by generating a 'pair' of solutions (keys): A public and private key
QCA	Qualifications and Curriculum Authority
RA	Radiocommunications Agency
RAu	Radio Authority (UK Government statutory body)
R&D	Research and Development
RDA	Regional Development Agencies in UK
RIPA	The Regulation of Investigatory Powers Act 2000
RNIB	Royal National Institute for the Blind
SEn	Scottish Enterprise. An Enterprise Network used as a mechanism for delivery of e-commerce assistance in Scotland
SETNET	Science, Technology, Engineering and Mathematics Network
SFIA	Skills for the Information Age framework
SIC	Standard Industrial Classification – for goods and services
SIM	Systeme Internationale Mobile. Standard for digital mobile communication used in Europe
Smartcards	Plastic cards containing computer chips that can store data for identification or electronic cash purposes
SME	Small and Medium-sized Enterprise
Software	Computer programs
Spam	Unwanted 'junk' email
Spectrum licences	Licences given to businesses to exploit internationally agreed areas of the radio-frequency spectrum. In UK licences are issued by the Radiocommunications Agency (RA)
SSCs	Sector Skills Councils
TESTA II	The European Union Extranet
Third generation mobile	See UMTS
TrustUK	Non-profit organisation endorsed by the UK Government to enable consumers to buy online with confidence
TSP	Trusted Service Provider
UFI	University for Industry

UMTS	The Universal Mobile Telecommunication Service is a standard for mobile telecommunications that will offer high bandwidth access from 2002
Unbundling	Ensuring that the last part of a fixed-link telecommunications network that connects to a subscriber's home or business is made available to competing telecommunications companies
URL	Universal Resource Locator. The 'address' of a website on the internet
VCS	Voluntary and Community Sector
Virus (electronic)	Software, usually originating in the internet, that infiltrates a PC, making something happen that the owner would rather not (e.g. loss of data)
Walled garden	A 'closed' environment on the internet allowing users access to a range of electronic traders selected by the owner of the walled garden
WAP	Wireless Application Protocol
WCVA	Wales Council for Voluntary Action
WDA	Welsh Development Agency
World Wide Web	The complete set of documents residing on all Internet servers that use the HTTP protocol
Website	A virtual location on the internet that has been developed by an individual, business or organisation for the purpose of giving information, advertising or selling its products. Accessed by using a URL
White Paper	Official UK Government document
WIPO	World Intellectual Property Organisation
WLGA	Welsh Local Government Association
XML	Extensible Markup Language
3G	Third Generation mobile telephony. Also see UMTS

9 Footnotes

1 Office of National Statistics (ONS)

2 In completing the 2002 Benchmarking Study we worked with the Information Age Partnership (IAP), Office for National Statistics (ONS) and Booz-Allen & Hamilton with academic input from INSEAD Business School. The complete results are being published in a separate benchmarking report.

3 www.nhsdirect.nhs.uk

4 'Developing Workforce Skills: Piloting a New Approach' HM Treasury and DfES, April 2002 (www.hm-treasury.gov.uk/mediastore/otherfiles/ACF528.pdf)

5 Earlier Government targets were framed around the term e-commerce, however this is now seen to refer primarily to trading online. The term e-business is now in use, covering wider use of ICT in such areas as customer relationship management, procurement, supply chain relations, trading and internal processes such as HR.

6 Study compares UK with Australia, Canada, France, Germany, Italy, Japan, Sweden and the USA.

7 www.nationalstatistics.gov.uk/pdfdir/ecom0802.pdf – 2001 survey of 12,000 UK businesses.

8 This finding is consistent with the 2002 DTI international benchmarking survey, which also found that 91% of businesses are connected to the internet by employment weighting.

9 Could alternatively be stated that if connectivity figures are revised to account for the differential between large businesses and small businesses, by employment weighting the survey data, then 91% of businesses are effectively online.

10 www.oftel.gov.uk/publications/research/2002/q9intb0702.htm – OFTEL report a successive declines in SME use of dial-up access over the last year.

11 The shift towards broadband is also confirmed by the 2002 DTI International Benchmarking Study (IBS) which found that 50% of businesses by employment weighting connected via cable modem, xDSL, leased lines of wireless broadband. The employment-weighted figures show a decline in the % of employees working in businesses deploying dial-up and ISDN services.

12 82% of UK employees work in a company with a website. This ONS figure aligns with the 2002 DTI IBS figure of 80%.

13 Source ONS 2001 e-commerce survey of business – selling and buying electronically includes the Internet and other computer mediated networks. The pure internet figures are 11% of businesses selling online and 28% buying online.

14 The IBS 2002 survey found that there has been a 10% reduction in the number of micro businesses selling online compared with a 7% increase in the number of large businesses selling online.

15 2001 online trading by UK businesses – Office for National Statistics 8th October 2002.

16 Source: e-business index derived from the benchmarking framework.

17 www.ukonlineforbusiness.gov.uk

18 www.hmso.gov.uk/click-use-home.htm

19 (2000/46/EC)

20 www.e-envoy.gov.uk/oee/oee.nsf/sections/guidelines-eprinciples/$file/index.htm

21 The draft Bill and other consultation documents can be found at www.communicationsbill.gov.uk along with the responses we received.

22 Electronic commerce: formal requirements in commercial transactions. www.lawcom.gov.uk/library/lcspecial-1/e-commerce.pdf

23 Treasury paper 'Developing Workforce Skills: Piloting a New Approach', HM Treasury and DfES, April 2002.

24 www.e-envoy.gov.uk/oee/oee.nsf/sections/guidelines-skills/$file/skills.htm

25 http://www.e-envoy.gov.uk/oee/oee.nsf/sections/reports-esd-spring-2002/$file/esdrep-spring-2002.htm

26 www.moneyclaim.gov.uk

27 www.ukonlineforbusiness.gov.uk

28 IEGs detail how e-Government contributes to each local authority's vision and set out the council's current position, their priorities for future investment and an action plan for how they are going to implement their work and how this will help them to meet the 2005 target http://www.local-regions.odpm.gov.uk/egov/ieg/index.htm

29 PIU, September 2000 - http://www.cabinet-office.gov.uk/innovation/2000/delivery/e-gov.pdf

30 http://www.e-envoy.gov.uk/oee/oee.nsf/sections/resources-word/$file/etrust_guide.doc

31 PIU, April 2002 – http://www.cabinet-office.gov.uk/innovation/2002/privacy/report/

32 http://www.e-envoy.gov.uk/oee/oee.nsf/sections/consultation

33 A system that allows use of Public Key Crytography.

34 http://www.e-envoy.gov.uk/oee/oee.nsf/sections/framework-channels/$file/Channels-framework-final-version.pdf

35 UKonline Action Plan number 19, http://www.e-envoy.gov.uk/ukonline/progress/actplan/table.htm

36 Further information can be found on the e-democracy website at www.edemocracy.gov.uk.

37 See http://www.hm-treasury.gov.uk/Spending_Review/spend_sr02/report/spend_sr02_repindex.cfm?

38 The Electoral Commission: Modernising Elections – a strategic evaluation of the 2002 electoral pilot schemes. 1 August 2002.

39 The GPC was introduced in October 1997 as a tool to purchase goods and services, efficiently and cost effectively.

40 http://www.ogc.gov.uk/index.asp?id=2314

41 Regular use is defined as those respondents to the Office for National Statistics OMNIBUS survey who state that they have used the internet within the month prior to the survey.

42 Educational establishments, internet cafes or public libraries.

43 Internet users in the survey sample have been divided into salary 10 salary bands such that equal numbers of internet users from the sample fall within each band. Decile 1 represents the lowest salary band and Decile 10 the highest.

44 Figure 3 contains data from the July 2002 Omnibus survey which was the most recent to measure take-up on a region by region basis. The 45% of UK households with internet access quoted at the beginning of section 5.2 is from the September 2002 survey.

45 http://www.oftel.gov.uk/publications/research/2002/q8intr0402.htm

46 http://www.oftel.gov.uk/publications/research/2002/trenr1002.htm#Annex2

47 http://www.nationalstatistics.gov.uk/pdfdir/intc0802.pdf

48 No available DTV data for Australia, Canada or Japan.

49 http://www.cultureonline.gov.uk/

50 The New Opportunities Fund (NOF) – http://www.nof.org.uk/ – is a Lottery Distributor created to award grants to education, health and environment projects throughout the UK.

51 http://www.nof-digitise.org

52 The People's Network – http://www.peoplesnetwork.gov.uk/ – is a project to connect all public libraries to the internet and improve their provision of content and information services. Lottery-funded by the New Opportunities Fund and managed by Resource, more than 4000 library centres will be up and running by the end of 2002.

53 The National Grid for Learning (NGfL) – http://www.ngfl.gov.uk/ – is a gateway to educational resources on the internet. It provides a network of selected links to web sites that offer high quality content and information.

54 Learndirect – http://www.learndirect.co.uk/ – offer a range of internet-based courses that can be accessed via home PCs or learndirect centres.

55 http://www.e-envoy.gov.uk/oee/oee.nsf/sections/resources-top/$file/resources.htm

56 The Standards Fund helps LEAs and schools to achieve national and local priorities in raising standards: such as improvements in literacy, numeracy and Key Stage 3; the Excellence in Cities programme; and tackling social exclusion. The grants are paid to LEAS which are required to devolve most of them to their schools. http://www.dfes.gov.uk/standardsfund/

57 Based on teacher assessments. The Key Stage 3 National Strategy is designed to raise standards by strengthening teaching and learning across the curriculum for all 11 to 14 year olds. Level 5 is the level pupils are expected to attain at age 14. http://www.standards.dfes.gov.uk/keystage3/

58 Grid Club – www.gridclub.com – aims to provide a safe, fun online learning resource for children aged 7 to 11.

59 TeacherNet – www.teachernet.gov.uk – provides teachers with a single point of access to online information and resources, bringing together a range of materials from different government agencies.

60 Parents Online – www.parentsonline.gov.uk – seeks to help parents understand the educational benefits of the internet.

61 JANET – http://www.ja.net/ – is a government-funded network for education and research. Further details of Government investment in this area can be found in the Business chaper.

62 http://www.dfes.gov.uk/curriculumonline/

63 TrustUK – http://www.trustuk.org.uk/ – is a non-profit organisation to enable consumers to buy online with confidence.

64 http://www.consumer.gov.uk/consumer_web/index_v4.htm

65 http://www.consumercomplaints.org.uk

66 (see www.scotland.gov.uk/digitalscotland/publications.htm)

67 www.scottish-enterprise.com/

68 www.hie.co.uk/

69 www.scotland.gov.uk/library3/enterprise/smart-successful-scotland.pdf

70 SMART stands for Specific, Measured, Agreed, Realistic and Timed.

71 www.cymruarlein.cymru.gov.uk/scripts/fe/fe_learncentres/learncentres_list.asp.

72 www.bwrdd-yr-iaith.org.uk/techgwyb/rhestrmeddalwedd-c.html

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Publication date: November 2002

Ref: 253242/1102/D24