UNITED KINGDOM

Policy environment

The Office of the e-Envoy (OeE) [www.e-envoy.gov.uk] was established in September 1999 following a central recommendation of the Performance and Innovation Unit’s (PIU) report “e-commerce@its.best.uk” [http://www.cabinet-office.gov.uk/innovation/1999/ecomm.shtml]

The OeE is leading the drive to get the UK on-line, to ensure that the country, its citizens and its businesses derive maximum benefit from the knowledge economy.

To support this aim, the Office has three core objectives:

− to make the UK the best environment in the world for e-commerce by 2002
− to ensure that everyone who wants it has access to the Internet by 2005
− to make all Government services available electronically and in a customer focused way by 2005

The Government’s programme of work to ensure the UK is a world leader in the knowledge economy revolution is set out in the UK Online Strategy [http://www.e-envoy.gov.uk/ukonline/progress/anrep1/default.htm].


The UK Online Strategy sets out 94 detailed recommendations for action, grouped under 25 key priority areas. Progress on each of these recommendations is updated monthly [http://www.e-envoy.gov.uk/ukonline/champions/actionplan_menu.htm].

The e-Minister and e-Envoy provide the Prime Minister with a monthly report, setting out progress towards meeting the UK Online Strategy [http://www.e-envoy.gov.uk/ukonline/progress/montprog.htm].

The UK Online Strategy draws together the findings and recommendations of a number of other reports:


The Modernising Government White Paper was published in March 1999. It set out a long-term programme of improvement for the delivery of government services, and covered ‘Information Age
Government. It proposed that 100% of government’s dealings with the public should be capable of being delivered electronically by 2008, a target which was brought forward to 2005 by the Prime Minister following the Knowledge Economy Cabinet meeting on 30 March 2000 [http://www.official-documents.co.uk/document/cm43/4310/4310.htm].


**Specific policies and programmes**

**Technology development**

**Government demonstration and development programmes**

In April 2000, the e-Government Strategic Framework [http://www.e-envoy.gov.uk/ukonline/strategy.htm] was published which required all Departments to produce e-business strategies showing how they planned to implement electronic Government and service delivery taking into account technical policies, including compliance with the recommendations of the Successful IT report (published in May 2000) [http://www.e-envoy.gov.uk/publications/reports/itprojects/index.htm].

Departmental e-business strategies are focused on outcomes rather than processes, with a client-side orientation. They identify opportunities for innovative joined-up working, new service delivery channels, and elimination of paper trails. Further, e-business strategies are intimately related to the overall business strategy for a Department. They are based upon delivery, through e-channels, of the services that are contained in their Public Service Agreement and Service Delivery Agreement. The strategies take full account of the wider Modernising Government agenda.

Initial versions of Departmental e-business strategies were produced at the end of October 2000 (copies are available on the e-envoy website). Feedback was given in February 2001 and on 29 March the Government announced its overall assessment of the first round of reports. Departments are required to update their strategies every six months, providing the latest snapshot on developments and their future plans.

In the Modernising Government White Paper, all government departments were set the target of managing their records electronically by 2004. The OeE is working closely with the Public Record Office [http://www.pro.gov.uk/recordsmanagement/default.htm] to meet this target [http://www.e-envoy.gov.uk/publications/frameworks/erm2/index.htm].

An essential component of the e-Government Strategy is the Interoperability Framework (e-GIF). Joined-up Government needs joined-up information systems, and the e-GIF sets out the policy and standards for interoperability across the public sector. It sets the architecture for joined-up and web-enabled government, for the UK Online Portal and Gateway, and for Electronic Service Delivery.

The e-GIF was initially launched by Minister Ian McCartney in September 2000 following wide consultation across the public and private sectors both within the UK and internationally. Version 4 was published in April 2002 and is available at www.govtalk.gov.uk. The e-GIF:

- adopts Internet and World Wide Web standards for all government systems;
− adopts XML as the key standard for data interchange;
− adopts standards that are well supported by the market;
− aims to reduce the cost and risk for government systems;
− makes the browser the key interface for access and manipulation of all information.

These standards are mandated for all new systems and for all outward facing legacy systems, *i.e.* those that are needed to meet ESD targets. The e-GIF applies to all interactions between UK Government Departments, between UK Government and the wider public sector, between UK Government and citizens/businesses, and between UK Government and foreign governments. It also provides an implementation strategy using the UK GovTalk website [www.govtalk.gov.uk] as the mechanism for consultation and communication.

UK GovTalk plays a significant part in the implementation of the e-GIF. It holds agreed copies of all policies, documentation, standards, XML schemas, etc relating to interoperability within the UK public sector, and provides public consultation and discussion forum facilities to help with the development of this set of information.

From an international viewpoint, the UK is continuing to take part in discussions with the EU Parliament and other foreign governments who are developing their own interoperability frameworks.

More recently the UK has chaired a new OASIS international standards committee aimed at setting standards for e-voting. A letter from the e-Envoy has been sent out to contacts in most countries in the world, including many in the ICA (International Council for Information Technology in Government Administration – www.ica-it.org) community, requesting that they join in the work of that committee. Full details of the work of the committee are available at www.oasis-open.org/committees/election/#top

A complementary framework to the e-GIF is the Metadata Framework (e-GMF). This sets the standards for tagging information to assist in resource discovery and records management. Version 1 of the e-GMF was published in May 2001 and is available on GovTalk.

A project (Managing Information Resources for e-Government – MIReG) has been set up under the EU IDA programme to establish a European Metadata Framework for Governments and members of ICA have been asked to participate in this work. We are on the Advisory Board of this project. Full details of the MIReG project are available at http://europa.eu.int/ISPO/ida/jsp/index.jsp?fuseAction=home.

An essential part of the Government’s own web presence is to deliver websites that are of a high quality, easy to use and inclusive and to ensure that they present a coherent impression of government activity. We acknowledge that content and presentational style may vary greatly, but that basic technical features and good management practice should not.

The Guidelines for UK Government websites were initially launched in December 1999 [www.e-envoy.gov.uk/webguidelines.htm]. Following an audit of government websites and a wide consultation across the Government webmaster community a second version has been prepared, comprising two parts:

− A framework for government websites – a 30-40 page statement of the policy emphasising good practice for the management and design of sites, adopting World Wide Web Accessibility Initiative, and stressing usability, ease of navigation and economy for the user.
An illustrated handbook – a 200+ page reference for webmasters. This covers the management of websites, their purpose and content. It also deals with issues ranging from advertising on sites, PICS labelling, the use of metadata and domain registration, the use of other languages and legal issues through to the technical aspects of HTML mark up, use of PDFs and scripting, digital television and XML.

The Guidelines have been published on the e-Envoy’s website with some supporting resources in the form of a series of ‘start-up kits’. These are small pre-built websites that comply with the recommendations from the W3C and their Web Accessibility Initiative and are intended both for training purposes and for developing websites.


Government procurement

To support the Office of Government Commerce’s (OGC) key strategy for e-Procurement, key tools and techniques have been developed by OGC, together with research to ensure that Government’s approach to e-procurement is robust. The aim is to reduce the burden of information on suppliers and contribute to OGC’s aim to secure GBP 1 bn in efficiency improvements.

E-Tendering

OGC TenderTrust\(^1\) is the world’s first smart card, Internet-based, secure electronic tendering system, which uses digital certificates and meets the highest security and authentication standards to enable purchasers and suppliers to easily manage the entire tendering process. OGC TenderTrust has been specifically designed to meet the demanding requirements of public sector procurement.

Ten Government departments are taking part in the pilot, which is an excellent example of how OGC is working with colleagues in Government departments and agencies to modernise purchasing and supply in the public sector.

Upon the successful completion of the pilot contract, which was due to finish at the end of 2001, OGC will roll out the piloted system under a four-year contract, across central civil Government - including Departments, Agencies and Non Departmental Public Bodies (NDPBs).

The project gives the UK Government the opportunity to be at the very forefront of the development of electronic tendering. Subject to the results of the Pilot, for the first time, an approved Electronic Tendering System (ETS) will become available to central civil Government delivering benefits to all parties. This project will also support the drive towards modernised Government, and make a real difference to suppliers as a fragmented Government approach gives way to a unified system.

E-Pilots Project

\(^1\) http://www.ogc.gov.uk/ogc/procurement.nsf/pages/Etender1.html
The E-pilots project [http://www.ogc.gov.uk/ogc/procurement.nsf/pages/e-Pilots1.html] was started with the aim of putting live e-procurement systems into at least 6 Government Departments to understand exactly how such systems could benefit Government. By the end of September 2001, four 6-month pilot contracts were awarded to suppliers with e-procurement solutions. Resources are also being assigned to sit alongside each of the pilots (some with several departments to compare and contrast the key issues) to ensure that OGC captures lessons learned. The findings from the pilots were to be available by July 2002.

**Technology diffusion**

*Technology diffusion to individuals and households / Technology diffusion to businesses*

37% of British Households have Internet access (ONS, June 2001): UK is third in the G7 for Internet access. 51% of adults have accessed the Internet at some time, and 41% in the previous month.

On making the benefits of ICTs available to all, the UK Government is taking action in 4 key areas:

- Initiatives to promote access at home, at work and in the community;
- Embedding ICT training in the education system and in lifelong learning to help people develop the skills to make the most of the Internet.
- Building consumer trust through initiatives such as the Trust UK hallmark for online trading and the Internet Watch Foundation (IWF) to tackle harmful content;
- Developing local online content to increase motivation to use the Internet.

**Progress to date**

- First 1,500 UK online centres, providing Internet access and support in local communities, were up and running by September 2001; 62% public libraries were connected by September 2001;
- 98% of all schools were connected to the Internet, up from 28% in 1998;
- GBP 700 m to improve the ICT infrastructure in schools, FE and HE and GBP 230 m to improve ICT skill levels among educators;
- UK online for business Advisers in over 100 local centres.

**Future developments**

- Government to establish 20 new technology institutes to provide advanced learning in ICT, with at least two institutes in each region;
- Continued roll out of UK online centres – 6,000 by 2002, including 4,300 public libraries;
- All schools to be connected to the Internet by 2002;
– Additional GBP 30 m to be invested in UK online for business over the next two financial years.

– Government conducted a survey of the ICT needs of the voluntary and community sectors in September 2001. It was to provide a basis to refine or develop a new programme to support these sectors, which are an important deliverer of government services and a significant part of the UK economy employing 2% of the workforce.

UK online centres

In September 2000, the Prime Minister announced the first 600 UK online centres, funded from the first phase of the Capital Modernisation Fund (CMF).

UK Online centres will enable everyone in the UK that wants it to have access to the Internet and e-mail near to where they live. A UK online centre could be in an Internet café on the High St, in a public library, in a college, in a community centre, a village hall or anywhere available to the public.

One of the most important features of these centres is that they will be targeted at those who are most excluded from the benefits of ICT and will provide a non-threatening environment in which they can acquire new skills.

There is GBP 252 m of CMF funding available over three years, in England, to set up a network of UK online centres. In addition revenue funding of GBP 77.5 million in England, is available through the New Opportunities Fund (NOF) for Community Access to Lifelong Learning. This also supports the revenue costs of Community Grids for Learning.

As libraries complete their implementation, they will become eligible for the UK online centres brand. The New Opportunities Fund has been available to libraries since September 2000 for the training of staff, and since November for the development of infrastructure. Funding for content has begun, and will continue through 2002. Details of all the UK online centres currently open can be found at www.dfes.gov.uk/ukonlinecentres/ where citizens can search for their nearest centre by postcode or region.

UK online for business

UK online for business is the major Government programme within UK online to help businesses succeed in new ways of working online. It has national targets of getting 1 million small businesses trading online and the performance of the small and micro businesses in the UK up with the best in the world by 2002. Targets for getting 1.5 m small businesses connected have already been met.

The programme has a wide range of awareness-raising activities aimed at stimulating businesses to consider the implications of information and communication technologies (ICTs). It also provides small businesses with impartial, jargon-free advice on using ICTs. This advice is available through the website, www.ukonlineforbusiness.gov.uk, and also through a helpline (0845 7152000) and a network of business advisors across the country.

A major International Benchmarking Survey is undertaken each year to measure progress against the Government targets and to understand how businesses are adopting ICTs. The studies are available on the UK online for business web site.
Computers Within Reach

The Computers within Reach (CWR) initiative, funded through GBP 15 m of CMF monies, aims to provide up to 100,000 recycled computers to low income families.

Wired Up Communities

Wired Up Communities pilot schemes are intended to assess the impact of wiring up all of the homes in deprived communities. At the heart of the scheme is a community portal, which brings together relevant local and central government content. The scheme was launched in October 2000 in Kensington in Liverpool, and has been extended to cover almost 12,000 homes in 7 pilot areas.

Demonstration programmes

The Government’s strategy is not simply about making services available online or electronically, but about delivering them in a customer-focused way, which matches the needs of citizens and businesses (‘Life Episodes’ for example), and not complex government structures.

The Government co-operates closely with private sector and industry on policy formulation and delivery. There are a number of fora in which an active dialogue between the government and the private sector can take place, including the Technical Advisory Group and the Broadband Stakeholder Group.

The e-Envoy has long advocated greater involvement with the private sector in the electronic delivery of government services. Such involvement can take a number of forms, but the e-Envoy has focussed particularly on the private sector’s role in presenting e-government services to citizens and businesses in a customer focussed and joined up way.

Intermediaries are already providing access to government information and services. For example, Natwest’s website page about self-assessment includes a link to the Inland Revenue site for those customers who want to complete their tax return online.

Another example of such co-operation is work between the Office of the e-Envoy and the Post Office, Ihavemoved.com and simplymoved.co.uk on the Change Of Address Service

The Change of Address (CoA) pilot [http://www.changeofaddress.gov.uk] added a selection of Government departments to the range of organisations willing to receive change of address notifications from three existing commercial CoA providers. It was launched in November 2000 and ran for a year. Although volumes of business were low, the pilot highlighted issues that will be involved in delivering the Modernising Government White Paper’s aim - a fully electronic CoA service.

The pilot is based on the services provided by Consignia [https://www.addressingthechange.co.uk}; ihavemoved.com (http://www.ihavemoved.com), and Simply Move (http://www.simplymove.co.uk). They were the only three service providers offering such services to the general public. They satisfy some basic criteria: to provide information and data according to departmental requirements; to satisfy CESG that their services were compliant with the Government security framework; and to provide the pilot free of charge.

Participating departments:

- Department for Work and Pensions (DWP)
A business change of address service was to be launched by the same three providers and co-ordinated by the Small Business Service.

The service providers are all registered with the Data Protection Commissioner. Customers have to opt-in to passing their data to any organisation, and the services are run on the basis of informed consent.

The pilot is accessible through the providers’ own websites and through a Government website [http://www.changeofaddress.gov.uk] linked to the three services, allowing the customer to chose that which best suits their own requirements.

Other joint ventures between the Government and the private sector, industry, and the voluntary sector include, for example, www.mychildatschool.com, an interactive service based on DfES and other data with perspectives designed for a parent, pupil or teacher and Just Ask! [http://www.justask.org.uk/] an award-winning source of advice drawing on many external sources and has been developed by the Community Legal Service. A full list of such services can be found at http://www.e-envoy.gov.uk/online_now.htm.

Also, the OeE has undertaken work on customer segmentation. One of the central themes of the Modernising Government agenda is the delivery of responsive, seamless, better quality public services designed around the needs of the customer rather than those of the service provider.

To this end, the UK Government intends to migrate to the development of e-Business strategies based on customer groupings (as opposed to the current arrangements which are along Departmental lines). The strategies will focus on key transactional services. The target date for the first tranche of strategies was February 2002.

Government on-line, government as model user

The UK online Citizen Portal, [www.ukonline.gov.uk], a unique first step towards establishing a 24-hour point of access to available government online information and services, went live in February 2001. In addition to providing access to a variety of government services, the site provides information in the form of “life episodes” such as “Having a Baby”, “Looking After Someone” or “Pensions and Retirement”.

From government sites you can order and pay for companies' financial returns. You can check to see if you need hospital treatment. You can find out if it is safe to visit Fiji, apply for a passport (and find out what the weather is going to be like) - and you can fill out a tax form - all on-line. You can also keep up to date with what is happening in Parliament, read the proceedings in the Commons or Lords and obtain recent legislation. You can find your MP (and send a fax from your computer to them) who might be able to refer something you are unhappy about to the Ombudsman.

The Court Service can provide you with a range or legal information including case law and access to online legal advice. And you can now report minor crime online.

Online information is available from “Things you can do online” [www.e-envoy.gov.uk/online_now.htm].
Central Government

The latest findings based on the autumn 2000 survey of departments shows that for the whole of central Government there are 521 services (457 were identified in spring) to the citizen or to business

For electronic delivery of these services:

- 218 services were enabled by 2001 (42%)
- 384 services will be enabled by 2002 (73%)
- 517 services will be enabled by 2005 (>99%)

The headline figures for the spring 2000 report published in July, were 33% of services available were enabled then, 71% were projected to be available in 2002 and 99% were projected to be available in 2005.

The reports, copies of which are available on the Internet [http://www.e-envoy.gov.uk/publications/esd_menu.htm], give further information on innovative approaches, joined-up working, take-up of services and measuring customer satisfaction.

Departments revised ESD returns were being evaluated and were be published at the same time as the Departmental e-business strategies.

Local Government

Over 100 English councils are to take part in 25 pathfinder projects resulting from the Knowledge Economy Review. They aim to develop better, more accessible local services by harnessing the benefits of new technology which will be available to all local authorities at nil or low cost.

Each pathfinder is a partnership between councils and other public service agencies, local communities and the private sector are involved in some of the various schemes. The Pathfinders are covering a range of issues which will help to take forward the agenda for all.

The Government is investing GBP 350 m in local e-government projects to kick start a gear change in councils, GBP 25 m of which is going to these pathfinder projects in 2001/02.

UKOnline Citizen Portal

A single web address [www.ukonline.gov.uk] now gives access to all UK Government information and services online, 24 hours a day, 365 days a year. The UK Online Citizen Portal is the easiest place on the web to get in-depth access to UK Government information and services. The portal went live in December 2000 and has been regularly enhanced since then.

The priority in developing the site was to ensure a friendly and accessible experience whether you’re new to the Internet or frequent user. Content is organised around the needs of the citizen, to make dealing with government as easy and seamless as possible. “Life Episodes” enable the user to access all the information about a particular event without having to understand the workings of government.

Presently there are eleven “Life Episodes”:
• Having a baby
• Your choices at 16+
• Looking for a job
• Going away
• Dealing with crime
• Death and bereavement

• Starting a new school
• Learning to drive
• Pensions and retirement
• Moving home
• Looking after someone

The portal also contains other services and features, including:

− Quick Find  A powerful search engine that searches across the breadth of some 700
government sites.

− Do It Online  A suite of useful online transactions such as paying bills, buying a TV licence
and applying for a passport.

− Citizen Space  Allows people to get more involved in the democratic process – from
consultations to discussion forums.

− Easy Access  Provides access to the portal for those who are visually impaired or have low
reading skills.

− Open.gov.uk  Access to open.gov.uk services

Now the central place for all government information and services has been established the UK
Government can build on this and in the future, integrate many of the presently separate government sites
into a consistent environment.

Plans for the future on Ukonline.gov.uk

Multiple access media channels:
The government is working on a programme to add new media and channels to ukonline.gov.uk. Work has
already started with digital TV, WAP phones and kiosks. 500 kiosks giving access to ukonline.gov.uk have
been available since September 2001. Work will continue to ensure universal and inclusive access for all
citizens.

Advanced human interfaces:
ukonline.gov.uk currently provides an extensive search and query facility through ‘Quickfind’. The vision
is to develop the advanced human technology interfaces using multimedia capabilities working on three
fronts:

− intelligent and natural language search;
− output in multiple languages;
− interaction through voice recognition.

**Advanced personalisation:**

ukonline.gov.uk currently allows you to personalise information based on where you live and a choice of language. Although much will depend on citizen feedback, future developments will concentrate on increasing the depth of personalisation in two ways:

− giving choice of colours, configurations and images;
− offering personalised updates on government information and services with which an individual citizen is currently engaged.

**Transactional services:**

ukonline.gov.uk is intended to be much more than just joined-up information. In conjunction with the Government Gateway, it will enable citizens to interact and transact fully with government. “Do it online” was launched in August 2001 and provides people with a suite of useful transactions.

**Lessons learnt from ukonline.gov.uk**

The development of ukonline.gov.uk has required the coherent integration of government infrastructure, systems, processes and services. The scale of change required to deliver ukonline.gov.uk is immense. The government’s strategy has therefore been to focus initially on what the citizen finds most valuable. The future development of the site will be based on feedback from citizens and government stakeholders.

Whilst the Office of the e-Envoy is responsible for the policy, standards and operational running of ukonline.gov.uk, a crucial factor to ensure success has been an effective partnership programme across the public, private and voluntary sectors.

ukonline.gov.uk has not replaced direct contact with public service providers. Instead it offers citizens choice in the way they access government services, providing a single point of entry into government information and services, available at any time. It also revolutionises the relationship between government and the citizen by transforming the way services are delivered. Services are tailored to the needs of the citizen, instead of being organised around government structures, helping them to cut through the maze of online government. In conjunction with the Government Gateway, ukonline.gov.uk will offer the citizen a quick and easy means of carrying out transactions with the government over the Internet.

**Government Gateway**

The **Government Gateway** [www.gateway.gov.uk] is a cornerstone of the UK online initiative. It provides the single route for transactions into back-office systems. It acts as the “middleware” and consists of self contained software and infrastructure that sits between departmental back-office systems and front-office applications, such as departmental websites, portals (such as ukonline.gov.uk) and commercial applications.
After a citizen or business registers to perform electronic transactions, they can carry out secure authenticated transactions with any of the connected departments using the same identification credential. This will bring the convenience of single sign-on for online services.

The use of a central common infrastructure will also provide economy of scale benefits to Government through a “build-once, use-many” architecture. For example, when the Gateway implements a new piece of functionality, that functionality will be available to all departments connected to the Gateway. This removes the need for multiple individual implementations.

The Government Gateway accepts, authenticates and routes electronic transactions with Government, and is designed to provide high levels of security and resilience 24 hours a day, 365 days a year.

Transactions themselves take the form of XML documents, where XML (eXtensible Markup Language) is a platform-independent language that allows specific pieces of information to be identified. These transactions must conform to predefined document templates (called XML schemas) created by the departments.

Using XML schemas is an innovative move. Front-end applications, on Government web sites, commercial portals or third-party applications can be written to suit the needs of the target audience, as long as the XML output by the application meets the XML schema specification. This could result in a transaction being displayed as an e-form, or as a series of multiple choice questions, or any other user interface that suits customer needs. This greatly increases personal choice for the user, as they can choose the application must suited to them.

The Government Gateway has worked with both Government standards for authentication, and tScheme, a self regulating industry body for transactional security, to provide two methods of authentication: either a user ID and password combination, or a digital certificate which can be used to digitally sign transactions. The choice of which method to use will depend on the required security of the transaction. The Gateway has set a precedent by implementing digital certificates on a wide scale in a public system.

Once a transaction has been authenticated and validated it is routed to the relevant back-office system for processing. The first four transactions enabled by the Government Gateway are:

- PAYE End of Year returns for Inland Revenue
- VAT returns for HM Customs and Excise
- IACS (Integrated Administration and Control System) Area Aid Applications for Department of the Environment, Food and Regional Affairs
- Self-assessment from Inland Revenue

The aim is to continue to develop the Government Gateway, both in terms of the functionality it offers and the transactions available to both citizens and businesses.

The way forward includes the following plans to develop the Government Gateway:

- Provide a common, secure payment facility to accept credit cards, debit cards and direct debit instructions
– Provide a secure facility to enable citizens and businesses to request downloads of documents such as tax statements
– Provide a secure two-way e-mail environment
– Facilitate joined-up transactions
– Integrate with more certificate providers to increase choice of digital IDs.

**Business environment**

**Electronic settlement/payments**

In order to reap the benefits of electronic government, a key part of the UK online strategy is to build confidence in online services. It is important to earn people’s trust. If not, there is a risk that a new digital divide could open – between those who trust and those who do not.

The PIU report *e-government: Electronic Government Services for the 21st Century* included a recommendation that: “The Office of the e-Envoy should develop a Trust Charter for government ESD in co-operation with the Data Protection Commissioner”.

The UK Government has recently published, on www.e-envoy.gov.uk, its e-Trust Charter and supporting guidance, for informal consultation with departments. This e-Trust Charter will help to explain to citizens the measures that will be taken to protect their privacy when they use electronic government services, it should also further assure the citizen that their data will not be misused. The e-Trust Charter will specify mechanisms for allowing easy access to personal data, systems for efficiently and rapidly correcting incorrect data, and the procedure for handling complaints.

**Standards**


– The Internet Services Providers Association of the UK (ISPA) members have signed up to the ISPA Code of Conduct;
– The Internet Watch Foundation was set up to reassure the public and business that the Internet can be a safe and secure place to work, learn and play;
– The Task Force on Child Protection on the Internet was established with the aim of making the UK the best and safest place in the world for children to use the Internet.

**International cooperation**

In 2001 the UK released its second international e-government benchmarking report highlighting cases of best practice across the G7. The focus has been intentionally on qualitative analysis for departments to learn from their international counterparts. However as the UK approaches the 2002 “best in the world”
target there is also a need to measure key e-government indicators within its benchmarking framework. As a step towards this goal a questionnaire has been developed, based in part, on the OECD business survey for consistency. The Government planned to collect data from UK central government departments by November 2001 and to scope out data collection internationally in 2002. Data collection at a local government level will also be explored [http://www.e-envoy.gov.uk/publications/int_comparisons.htm].

The UK is also working internationally on e-commerce measurement: a common definition and common set of questions to benchmark e-commerce are being developed through OECD. The UK also supports and provides input to e-Europe benchmarking initiatives.

The e-Government Metadata Framework has placed the UK at the forefront of developments in this field, having implemented a metadata standard so widely, and great interest in our approach is being shown by other countries. The EC IDA (Interchange of Data between Administrations) programme is taking forward the development of an EC GMF, which will be based on the UK e-GMF, with the aim of creating a new European metadata standard.

The UK also participates in a number of other EC projects and initiatives, including the eForum Initiative, which aims to provide a means of exchanging experiences and best practice in eGovernment across the EU. In addition, the OeE represents the UK at meetings of various working groups, and the OeE works with many difference European countries in different areas and is involved in both inward and outward secondments.
Policies relating to building ICT skills

The Government is taking steps to ensure that ICT training is embedded in the education system, the priorities will include:

- GBP 700 m to improve the ICT infrastructure in schools, further and higher education
- GBP 230 m to improve ICT skill levels among educators
- Establishment of City Learning Centres (CLC) [http://www.standards.dfes.gov.uk/excellence/CLC_contents.html]. These centres provide the chance to make the most of the Internet and new technologies to both school pupils and adults.

National Grid for Learning

The National Grid for Learning [www.ngfl.gov.uk] is an Internet-based resource for education and lifelong learning which brings together an increasingly wide variety of institutions and content providers (including schools, colleges, museums, libraries and broadcasters) to provide access to high quality materials. The National Grid for Learning will ensure that all schools and colleges are connected to the Internet by 2002. Persons having left formal education, can benefit from the Lifelong Learning programmes [http://www.lifelonglearning.co.uk/].

University for Industry

The University for Industry (Ufi) - is a focal point of a national multimedia learning network to improve the availability and quality of learning information and materials, simplify and widen access by individuals and companies, and stimulate demand. Ufi is taking forward the Government's vision by stimulating and meeting demand for lifelong learning among businesses and individuals. Working as a public-private partnership in England, Wales and Northern Ireland, Ufi aims to put individuals in a better position to get jobs, improve their career prospects and boost business competitiveness.

Ufi's learning services are being delivered through learndirect, which provides access to innovative and high quality courses, over 80 percent of them on-line. learndirect will enable people to fit learning into their lives, learning wherever they have access to the Internet - at home, at work, or in one of over 1,000 learndirect centres [www.ufi ltd.co.uk].

Learndirect

The learndirect service was rolled-out across England, Wales and Northern Ireland in October 2000. There are 885 learndirect centres open, offering over 600 learndirect courses. learndirect helpline has helped over 2.3 million callers. A searchable database of UK learning opportunities is available on-line and by mid-2001 had received 900,000 website hits.

learndirect is aimed at all adults - whether they are in work, seeking work, considering returning to work or retired. It provides a wider range of skills provision than UK online, spanning a wider range of levels, within an integrated, supported end-to-end online learning environment. The centres operate under the national learndirect brand which will guarantee that learners will be able to pursue their learning at any
learndirect centre, or from work or home, and receive the same level of support (either face-to-face or on-line) in any one learndirect centre as in any other [www.learndirect.co.uk].

To address skills priorities within the Civil Service, the Central Government National Training Organisation (CGNTO), based within the Cabinet Office has published a Workforce Development Plan, *Developing 21st Century Skills*, which includes a focus on skills for e-Government [http://www.central-gov-nto.org.uk/links/swpd_link.htm].

**Professional IT skills**

In the White Paper *Opportunity for All in a World of Change*², the Secretaries of State for Trade & Industry and Education and Employment stated “our ambition is to make the UK the number one country for the supply of advanced ICT and related skills”. The major themes of this agenda include:

- expanding specialist ICT and other high-tech learning programmes in further and higher education. By 2004-05, the UK will be training up to 10,000 students a year on full time and updating courses;
- introducing a programme to train 5,000 unemployed people over the next three years for technician level jobs in ICT;
- working with business to reverse the serious under-representation of women in ICT jobs. The aim is for the UK to match best international performance with regard to women’s employment in ICT.

The Government’s agenda to address advanced ICT and related skills takes into account the analysis and recommendations for action of *Skills for the Information Age: Final Report of the Information Technology, Communications & Electronics Skills Strategy Group*, published in November 1999³. Also relevant to this agenda are the reports and recommendations of the National Skills Task Force and the Government’s response to these⁴.

Specific initiatives in relation to the Government’s stated ambition to make the UK the number one country for the supply of advanced ICT skills include:

- Developing *vocational specialisation* in further education: the new Learning & Skills Council will invest GBP 100 million over the next 3 years to develop specialists, such as electronics, ICT and design & technology in further education colleges, for which they will be recognised as a centre of excellence locally, regionally or nationally.


⁴ Also relevant to the ITEC skills agenda are the reports of the National Skills Task Force and the final statement on the work of the National Skills Taskforce from the Secretary of State for Education and Employment [http://www.skillsbase.dfee.gov.uk/Reference/Reference.asp?sect=1&page=2](http://www.skillsbase.dfee.gov.uk/Reference/Reference.asp?sect=1&page=2)
– Introducing New Technology Institutes (NTIs): we will establish NTIs based on partnerships between universities, colleges and local business to provide specialist ICT and other high-tech learning programmes and ensure local companies have the know-how to apply advanced technology practices.

– Expanding provision of high quality work experience in ICT and related high-tech areas for students:

– Working with industry to create a more positive image of careers in high-tech sectors that helps attract a more diverse workforce:

Introducing a new occupational skills framework for ICT: the framework provides a common standard for describing ICT jobs and represents a key business tool for assessing and improving ICT skills levels.\(^5\)

**Basic IT skills**

The Government is committed to helping raise standards of basic ICT literacy, amongst students in education, the workforce and society at large. Major initiatives to improve people’s access to and competence in ICT include:

In Schools (by 2002)

– to enable all school leavers to have a good understanding of ICT based firmly on the standards prescribed in the national curricula across the UK, with measures in place for assessing student competence;

– to ensure serving teachers generally feel confident and are competent to use ICT within the curriculum;

– to ensure all schools, colleges, universities and libraries and as many community centres as possible are connected to the National Grid for Learning;

– to make Britain a centre of excellence in the development of networked software content and a world leader in the export of learning services.

– to ensure that general administrative communications between educational bodies and the Government and its agencies cease to be paper-based;\(^6\)

In the Community

– 6000 UK online centres in disadvantaged and rural communities by 2002 to ensure all adults have access to ICT skills\(^7\);

\(^5\) More information about the ‘Skills Framework for the Information Age’ can be found at [http://www.e-skillsnto.org.uk/sfia/index.html](http://www.e-skillsnto.org.uk/sfia/index.html)

\(^6\) More information about the Government’s initiatives on ICT in schools and the National Grid for Learning can be found at [http://www.dfee.gov.uk/grid/index.htm](http://www.dfee.gov.uk/grid/index.htm) and [http://www.ngfl.gov.uk/](http://www.ngfl.gov.uk/)
− 80% discounts on the cost of basic ICT courses for people opening Individual Learning Accounts;

In the workforce

− IT4All, a new initiative to improve the ICT user skills of the UK workforce at large\(^8\), increasing the number of unemployed people, those returning to the labour force and people facing redundancy who acquire a basic ICT qualification.

Do they contain specific and measurable targets?

Specific targets include:

Advanced ICT Skills

− By 2004-05, up to 10,000 students a year on full-time and updating courses in advanced ICT and related high-tech skills;

− a programme to train 5,000 unemployed people for technician level jobs in ICT by 2004;

ICT User Skills

− 6,000 UK online centres in disadvantaged and rural communities by 2002 to ensure all adults have access to ICT skills;

− **proposed** target for 2007 of 85% of 14-year olds to reach level 5 or above in Key Stage 3 tests in ICT;

− by 2002 a computer:pupil ratio of at least 1:11 in primary schools and 1:7 in each secondary school;

− by 2002 a connection to the Internet in each school with at least 20% of schools in each area connected at broadband level;

− by 2002 at least one networked computer with Internet access in each school for management and administrative purposes.

Are there specific actions addressing the European or international dimension?

The UK seeks to learn from European and international best practice and is considering how to benchmark its performance for the supply of advanced ICT skills against that of other countries.

\(^7\) [http://www.dfes.gov.uk/ukonlinecentres/](http://www.dfes.gov.uk/ukonlinecentres/)

\(^8\) The strategic objectives of IT4All can be found at [http://www.e-skillsto.org.uk/it4all/background.html](http://www.e-skillsto.org.uk/it4all/background.html)
What are the main instruments used to implement them?

Qualifications & Curriculum Authority [http://www.qca.org.uk/]
The Qualifications & Curriculum Authority (QCA) is responsible for standards in education and training. The QCA works with other partners to maintain and develop the school curriculum and associated assessments, and to accredit and monitor qualifications in schools, colleges and at work.

Learning & Skills Council [http://www.lsc.gov.uk/]
The Learning and Skills Council (LSC) is responsible for funding and planning education and training for over 16-year-olds in England. Its mission is to raise participation and attainment through high-quality education and training which puts learners first. Established in April 2001, the LSC’s work covers further education, work-based training and young people, workforce development, adult and community learning, information, advice and guidance for adults and education business links. The LSC is responsible for implementing new Centres of Excellence in further education.

Higher Education Funding Council for England [http://www.hefce.ac.uk/]
The Higher Education Funding Council for England (HEFCE) promotes and funds teaching and research in universities and colleges in England and works to ensure that higher education is responsive to the needs of business, including the wider community, where this will lead to wealth creation. HEFCE is responsible for managing the introduction of New Technology Institutes.

National Training Organisations [http://www.nto-nc.org.uk/]
NTOs are the recognised voice of employers on the skills and people development needs of UK industry and employment sectors. NTOs work to enhance the competitiveness and prosperity of the UK by improving the skills and competence of people in all sectors of the economy.

New Deal [http://www.newdeal.gov.uk/itskills.asp]
New Deal is a key part of the Government's Welfare to Work strategy. It has been created to help unemployed people into work by closing the gap between the skills employers want and the skills people can offer. Ambition:IT is a new Government-business partnership that will enable unemployed people and lone parents on New Deal to gain ICT skills and experience, with the aim of improving their long-term career prospects. Ambition:IT comprises three targeted programmes: Career Ambition is a three-year pilot programme to help 5,000 people on New Deal into jobs in the IT industry; First Ambition will enable 15,000 people on New Deal to take up ICT training; and Challenge Ambition allows New Deal providers to bid for resources to try out innovative ICT solutions.

Office of the e-Envoy [http://www.e-envoy.gov.uk/]
The Office of the e-Envoy is leading the drive to get the UK online, to ensure that the country, its citizens and its businesses derive maximum benefit from the knowledge economy. To support this aim, the Office has three core objectives:
to make the UK the best environment in the world for e-commerce by 2002
− to ensure that everyone who wants it has access to the Internet by 2005
− to make all Government services available electronically by 2005

The Government’s programme of work to ensure the UK is a world leader in the knowledge economy revolution is set out in the UK Online Strategy [www.ukonline.gov.uk].

**Small Business Service** [http://www.sbs.gov.uk/]

The Small Business Service (SBS) is an agency within the United Kingdom's Government that champions the interests of small businesses. The SBS works with the network of Business Links [www.businesslink.org] that provide information and advice to small business and business start-ups, including about e-commerce and IT.

**learndirect** [http://www.learndirect.co.uk/]

learndirect provides access to innovative and high quality courses, over 80 percent of them on-line. learndirect enables people to fit learning into their lives, learning wherever they have access to the internet, at home, at work, or in one of over 1,000 learndirect centres. Learning is also available to businesses to support workforce development.

**How is their implementation monitored and evaluated?**

White Paper commitments are monitored and evaluated through the publication of an Implementation Plan that list outcomes, milestones and named officials for each commitment.9

**Have specific actions been launched targeting specifically SMEs?**

**UK Online for Business**10 has been created to help UK firms exploit the business benefits of ICTs. The programme is part of UK online, a nation-wide partnership that brings together Government, industry, the voluntary sector, trades unions and consumer groups to help make the UK one of the world's leading knowledge economies. As part of UK online, UK Online for Business shares the overall objective of making the UK the best place in the world for doing business online. It promotes the business benefits of e-business and provides access to a national network of over seventy centres where UK online for business advisers offer free help and advice to SMEs on how to use technology effectively. UK Online for Business manages a number of programmes in support of SMEs including ‘Technology Means Business’, an industry standard accreditation for those providing integrated business and ICT advice to small and

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9 Implementation Plan for ‘Opportunity for All’ can be found at [http://www.dti.gov.uk/opportunityforall/index.html](http://www.dti.gov.uk/opportunityforall/index.html)

10 [http://www.ukonlineforbusiness.gov.uk/first.htm](http://www.ukonlineforbusiness.gov.uk/first.htm)
medium sized enterprises (SMEs)\textsuperscript{11}; and an e-commerce awards scheme designed to recognise and reward those small companies that have demonstrated business excellence through the use of E-Commerce\textsuperscript{12}.

*Have these been evaluated with respect to their impact on competitiveness and SMEs?*

In order to benchmark the UK’s progress towards the Information Age in comparison to our major competitors, the DTI has sponsored research into levels of ownership, usage and understanding of information and communication technologies (ICTs) by companies of all sizes and sectors in the benchmarked countries.

The principal objectives of this year’s study\textsuperscript{13} are:

− to enhance understanding of the levels of ownership and usage of ICT’s by UK businesses;
− to measure the UK’s performance against other benchmarked countries, and to highlight areas of relative strength and weaknesses across all sizes of business;
− to measure progress against the Government’s targets of ensuring that:
  1. 1.5 million micro, small and medium-sized businesses are online by 2002;
  2. 1 million micro, small and medium-sized businesses are trading online by 2002; and
  3. the performance of UK’s micro and small businesses is up with the best in the world.

**REPORTS, STUDIES AND STATISTICS**

In addition to the reports, information and analysis already listed in the footnotes to this paper, the following research papers are available:

− 2001 survey of employers of ICT professionals
− ‘An Assessment of Skill Needs in ICT’ - The Institute of Employment Studies 2001
− ‘Women in ITEC Courses and Careers’, an assessment of women’s participation in IT, electronics and communications - Science and Technology Policy Research, University of Sussex in collaboration with the Institute for Employment Studies 2001

\textsuperscript{11} http://www.technologymeansbusiness.org.uk/

\textsuperscript{12} http://www.ecommerce-awards.co.uk/

\textsuperscript{13} Details of the International Benchmark Study for 2000 can be found at http://www.ukonlineforbusiness.gov.uk/Government/govresearchframe.htm
KEY PLAYERS AND EXPERTS

- Department and Trade & Industry http://www.dti.gov.uk/
- Department of Education & Skills http://www.dfes.gov.uk/
- Department of Work & Pensions http://www.dwp.gov.uk/
- Office of the e-Envoy http://www.e-envoy.gov.uk/
- Learning and Skills Council http://www.lsc.gov.uk/
- Qualifications & Curriculum Authority http://www.qca.org.uk/
- The e-Skills National Training Organisation http://www.e-skillsnto.org.uk 14
- EMTA, the National Training Organisation for Engineering Manufacture http://www.emta.org.uk/
- Skillset, the National Training Organisation for broadcast, film, video and interactive media http://www.skillset.org/

14 (see in particular the strategic plan of the e-skills at http://www.e-skillsnto.org.uk/strategicplan/index.html)
Assessment and evaluation


UK Online Strategy sets out 113 detailed recommendations for action, grouped under 26 key priority areas. Progress on each of these recommendations is updated monthly [http://www.e-envoy.gov.uk/ukonline/champions/actionplan_menu.htm].

The e-Minister and e-Envoy provide the Prime Minister with a monthly report to the Prime Minister, setting out progress towards meeting the UK Online Strategy [http://www.e-envoy.gov.uk/ukonline/progress/montprog.htm].

In addition, the OeE has a number of benchmarking projects [http://www.e-envoy.gov.uk/ecomerce/manalysis/background.htm] working to provide data and statistics on the UK’s standing in the world on Internet & IT issues, and its position in regards to the governments three commitments (made in the UK Online Strategy) to make the UK the best in the world for e-Commerce/Government & Communications.