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Electronic Government Services for the 21st Century

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FOREWORD

BY THE PRIME MINISTER

In July, we announced the biggest investment in public services of modern times. That increase is a huge opportunity for everyone involved with public services to improve the way we deliver those services to citizens.

But with that opportunity comes a responsibility: to use those resources as effectively and efficiently as possible. So, the new funding is tied to targets about the outcomes we want to achieve. By specifying *what* we want achieved, we can innovate with *how* to achieve those goals.

Electronic service delivery will be a key source of innovation. We can use new digital channels to deliver better quality services to the citizen – available 24 hours each day, faster, more convenient and more personalised. By doing so, we will also stimulate the market for e-commerce, by encouraging the widespread adoption of these new technologies and creating new business opportunities.

I am determined that we should capitalise on these opportunities and that by 2005 at the latest, all government services will be online. Equally important is that by the same time, everyone should have access to the Internet, so that the whole of society can benefit.

None of this is straightforward, for we need to make profound changes to the way government works if we are to make the most of new technology. We need to be sure that everyone in society can benefit, and that we are using the talents of the private and voluntary sectors as effectively as possible. To begin with, government must set out a clear vision of what it is trying to achieve, and a carefully worked out approach for attaining its goals. That is why I asked the PIU to develop a strategy for the electronic delivery of government services to the citizen.

This report sets out a radical and compelling direction for government electronic services. Services will be joined up, delivered through a range of channels, and backed up by advice and support. Service delivery will be opened to the private and voluntary sectors, so that there will be a mixed economy of electronic delivery. Competition between providers will stimulate innovation and drive up service quality.

I am determined that government services delivered electronically should be of the highest quality. The strategy set out in this report will provide a sound basis for rapid progress towards that goal and for continuing innovation and service improvement in the future. Service users deserve the step change that electronic delivery can provide. By implementing the conclusions of this report, I am confident that we will deliver precisely that.

Tony Blair

Tony Blair

1. EXECUTIVE SUMMARY

Key points

- Electronic service delivery offers **huge opportunities to improve public services** for the benefit of citizens: more convenient, more joined-up, more responsive and more personalised.

- It is going to **transform the way the public sector does business,** in many cases replacing traditional channels for doing business with more efficient and effective electronic channels.

- This report sets out a **comprehensive strategy,** underpinned by a **clear vision,** for realising the full potential of electronic service delivery.

- This strategy requires **change** in three broad areas:

  - **ensuring that government electronic service delivery is driven by the use that citizens make of it.** There is scope for better co-ordination of initiatives to ensure that citizens have the skills, information and equipment to interact electronically. There should also be measures to give people mediated access to electronic services where they want and need it. Government must also respond more effectively to citizen preferences and make investment decisions on the basis of service use;

  - **opening the electronic delivery of government services to the private and voluntary sectors.** Competition between public, private and voluntary sector providers of electronic government services will improve service quality, stimulate innovation and improve value for money;

  - **putting in place new incentives, levers and institutional structures to make sure the transformation happens,** including new funding and sharpened financial incentives to promote electronic service delivery and the creation of a government incubator to develop new service ideas.

- **In addition, the government must continue to implement its rolling programme of priority services, with a significant number of priority citizen services funded for full implementation this year.**

- **The report includes an implementation plan to show how government can realise the vision. The roles of individual departments will be critical in delivering this and there are also key roles for the e-Government Minister and e-Envoy.**

Electronic service delivery offers unparalleled opportunities to improve public services for the benefit of citizens…

1.1 The digital revolution offers huge opportunities to improve public services by better tailoring them to the needs of individual citizens, who increasingly want to be able to choose when, where and how they interact with government. Many public services will be delivered far more efficiently and effectively electronically than through traditional channels. However, groups that use government services most heavily are often those that currently have the lowest levels of access to electronic service delivery channels.

… and is going to transform the public sector

1.2 Technological change also presents government with an unparalleled opportunity to transform the way the public sector does business. It is a significant challenge. The scale and complexity of government, both central and local, means that the transformation required to capitalise on the potential of the new technology will not be easy to manage, as the private sector has already found. Government's track record of managing IT

projects is not good, and the move to electronic service delivery will require very substantial work on back-office IT systems. The changes required to the ways government works are likely to be an even greater challenge.

To realise the full potential of electronic service delivery requires a comprehensive strategy and a clear vision

1.3 This report sets out a comprehensive and radical strategy for implementing government electronic service delivery (ESD) to the citizen. This strategy is grounded in a clear vision for government ESD, and includes both central and local government.

Electronic service delivery needs to be joined-up…

1.4 Electronic service delivery should be used to join up service provision across departmental boundaries, to break down silo-based delivery networks and to allow citizens to interact with government whenever they choose, whether at home, at work or on the move. Over time people will increasingly find that electronic delivery provides greater convenience, responsiveness and a more personalised service than other forms of delivery.

… delivered through a range of channels…

1.5 Citizens should have a choice of electronic channels for accessing government services. The electronic delivery of government services should be based around open, Internet standards, so that citizens can access the services through a variety of platforms. Not all services will be capable of being accessed on all platforms, and government should not always aim to put services on all possible platforms. However, whether citizens use a PC, digital TV (DTV), mobile phone or other web device, they should be able to access the same government content in a user-friendly format.

… backed up by advice and support…

1.6 Electronic delivery of government services should be backed up by access to advice and support for those who need and want it. Such advice and support will be critical to achieving high levels of take-up. There will remain a need for a variety of delivery channels, including places where citizens can go to access government services and speak to a trained person. These centres should be supported by essentially the same electronic systems that are accessible to people at home. Telephone call centres will also have a crucial advisory and supporting role.

… open to the private and voluntary sectors…

1.7 Electronic delivery of government services offers enormous new opportunities for the private and voluntary sectors. There should be a new, mixed economy in the electronic delivery of government services in which the public, private and voluntary sectors can all play a role on the basis that what matters is what works rather than who does it.

… competitive…

1.8 Competition between public, private and voluntary sector providers of government services will improve service quality, stimulate innovation, and promote the bundling together of public and private services to the benefit of the consumer. From the perspective of citizens as taxpayers, such competition should result in improved value for money.

… and driven forward by government operating in new ways

1.9 Government will need to work in new ways if the opportunities to improve public services are to be seized. It will need to re-invent how it works through stronger leadership from the top, clearer and more powerful incentives to change, radical shifts in arrangements for working across boundaries and a cultural change to support innovation.

1.10 What can be achieved is illustrated by a number of instances of best practice internationally. For example:

- in Australia, www1.maxi.com.au offers a one-stop shop delivery system, bringing together many government services through the Internet, telephone and public kiosks;

- in Finland, the government collects each citizen's annual financial information and makes a 'tax proposal' to the citizen for agreement, saving them the effort of self-assessment;

- in Singapore, the www.ecitizen.gov.sg site offers a comprehensive range of government services, arranged around life events;

- in the private sector, www.ezgov.com and www.govworks.com in the US offer a comprehensive package of online public services for local and state governments,

including information on all aspects of government, processing payments and allowing transactions, such as renewing driving licences.

The barriers to implementing this vision need to be identified and overcome

1.11 This project has identified three key barriers to realising the vision:

- *government is not yet doing enough to maximise use of its online services;*

- *government may be insufficiently open to private and voluntary sector service providers* who have a crucial role to play in innovative electronic service delivery;

- *the necessary incentives and institutional structures to realise the full potential of electronic service delivery may be absent* in the public sector.

1.12 Much has already been done to address these barriers or is in hand. For example: government has announced a target that all its services should be online by 2005; its e-strategy has been published; departments have begun to develop online services; and the cross-cutting spending review of the knowledge economy has set aside £1 billion to develop online services. The e-business strategies that each department is developing for October 2000 will also be critical drivers of e-government and departmental commitment to their implementation is vital. Building on this work, the following sections set out the *key* recommendations in this report for realising the vision.

Realising the vision (1): Reaching the citizen

1.13 If the benefits of electronic service delivery are to be maximised and all sections of society are to share equitably in them,

government needs to maximise use of its online services. More than ensuring that everyone can access them and has the information and skills to use them, this means that government's online activities must be driven by levels of use and by citizen preferences.

1.14 Access to skills and equipment to use the Internet was a key theme of the cross-cutting review of the knowledge economy carried out by the Treasury in parallel with this project. As a result of the review, a number of DfEE and DTI programmes to build skills have been funded and the Post Office is currently developing Internet Learning and Access Points, as proposed in the Performance and Innovation Unit (PIU) report *Counter Revolution: Modernising the Post Office Network*. The broader government access strategy is set out in the UK online Report, published in tandem with this one. In the light of this work, the PIU team was asked not to make access a key focus of its study, although it did contribute substantially to the review.

1.15 This report therefore recommends that in addition to existing work:

- *the government should take steps to ensure that those who are unable or unwilling to use electronic channels themselves can still benefit from electronic service delivery.* Apart from developing web-enabled support channels, such as telephone call centres, government should experiment with new ways of helping this group to use government services delivered electronically. Following the PIU report on the modernisation of the Post Office network, pilots of a web-enabled 'Government General Practitioner' service in sub-post offices and other physical locations are being taken forward. This study recommends that mobile, laptop-equipped facilitators should also be piloted to provide information and

advice on electronic access to services from the home;

- *government should take advantage of the potential of DTV as a channel for ESD* by deciding whether to link full Internet access to digital switchover;

- *service providers should follow the principle that levels of use must drive what they do.* Before investing in an electronic service, they need to be clear what level of take-up they are seeking to achieve, by when, and how they are going to achieve it. If after the planned period of time, and the planned level of marketing expenditure, a service is not well used, the assumption should be that there is little case for further investment. Funding should be staged, so that there are clear break points at which to review the success of a service before making significant further investment;

- *all service providers should adopt open, Internet standards as the backbone of service delivery,* and build supporting channels around this core electronic service. Government should not be using closed, proprietary delivery systems for its services;

- *the Office of the e-Envoy should develop a Trust Charter for government services,* setting out how government will protect citizens' privacy on its sites;

- *government departments should co-ordinate their marketing and branding of electronic government services.* There are economies of scale to be achieved from doing so, and benefits to the consumer arising from some co-ordinated action.

Realising the vision (2): Creating a mixed economy in the electronic delivery of government services

1.16 The vision of a mixed economy in the electronic delivery of government services relies on government being 'open for business', so that private and voluntary sector organisations are able to access the information and databases that they need in order to deliver services. However, the incentives for departments and other public sector bodies to allow access to the necessary back-office systems are currently weak.

1.17 This report therefore recommends that:

- *the e-Envoy should 'champion' the involvement of the private and voluntary sectors in the electronic delivery of government services.* The Office of the e-Envoy should support private and voluntary sector organisations that experience difficulties in interacting with government. Where necessary, the e-Envoy should promote a level playing field between public, private and voluntary providers, e.g. if the private and voluntary sectors face problems in obtaining access to data and information needed to deliver government services electronically;

- *government needs to take care to avoid crowding out potential private and voluntary sector providers.* Government will inevitably have a prime role in the delivery of its own services. Before developing their own online services, however, public sector providers should assess the rationale for public provision, and review regularly whether continued public sector involvement is indicated;

- *government should avoid exclusive contracts for the 'front end' delivery of its services.* In particular, it should make it as straightforward as possible for private

and voluntary sector providers to deliver government services, and adopt a working assumption that, unless there are strong public policy reasons to the contrary, all such providers should be allowed to deliver government services. It should also actively seek relationships with sites that attract high volumes of users, so that government services are accessible from major private sector portal sites;

- **the government should adopt clear, explicit and consistent policies on advertising and other issues of probity affecting the electronic delivery of government services.** Advertising is a potentially significant source of revenue and there is no reason for government to forego it. However, care needs to be taken not to undermine public trust in government services. Government policy needs to set out the right principles for taking a view on the role of advertising on a service-by-service basis.

Realising the vision (3): Organising to deliver

1.18 Electronic service delivery offers the potential to transform the public services, i.e. alongside other changes, to put into practice the Modernising Government agenda. However, this transformation will not happen by itself. New incentives, levers and institutional structures for electronic service delivery need to be put in place to make it happen.

1.19 This report therefore recommends that:

- **government should give electronic service delivery a stronger strategic focus** through regular six-monthly Cabinet meetings to discuss progress against targets for e-government, through setting explicit electronic service delivery objectives for Permanent Secretaries and by making electronic service delivery

targets part of Service Delivery Agreements between departments and the Treasury;

- **financial incentives for electronic service delivery should be sharpened** by giving the Office of the e-Envoy dual key responsibility with the Treasury for the release of funding for e-government projects and by introducing new bonus schemes to reward individuals who successfully implement ESD;

- **funding for e-government projects should be made conditional on robust departmental e-business strategies and rigorous appraisals of individual project proposals.** These mechanisms should be used to ensure that key public services are brought online and that departments join up service delivery wherever this brings overall benefits to the users of government services. A thorough and rigorous business case should underpin all electronic service delivery projects;

- **'product managers' should be appointed with responsibility for developing joined-up services** targeted at particular customer groups. The recommendations in the PIU report *Wiring it up* should be applied to ensure that this cross-cutting working is successful;

- **electronic service delivery units should be established in major service delivery departments** to drive forward the delivery of services electronically;

- **a government incubator should be established** in the Office of the e-Envoy to develop new service ideas. This incubator should be responsible for developing new ideas in partial isolation from traditional service providers. Ideas should be developed into prototypes, tested with their target audience, and, if successful, rolled out quickly;

- **a study should be undertaken of the detailed implications for the public sector workforce and for the physical**

Table 1.1: Early online services

Area of government	Things that you can do online now	Things that you will be able to do online within the next year
Health	Get authoritative advice and guidance on health and healthy living from NHS Direct Online.	Have your hospital medical appointments and referrals booked directly by your GP while you wait at the surgery (1 million people will be able to do this by the end of 2000). Have the necessary medical information transferred directly between GPs and pharmacies (pilot project by end 2001; national roll-out by 2005).
Education	Access the Parents' web-site containing information for parents on schools and other areas of interest. Search Ofsted inspection database and reports. Access the National Grid for Learning.	Online courses will be available with the Department for Education and Employment, and these may include, for example, Japanese, Latin and Maths. Learn about business and IT online with learndirect.
Courts	Download over 230 forms from the Court Service and get access to the daily lists for the Crown Court and Supreme Court. Obtain detailed legal advice and information by accessing the Community Legal Service website and directory.	Get information on jury service and on facilities provided for jurors at each Crown Court.
Employment	Search for jobs available through Jobcentres via the Employment Service (pilot project online only at the moment).	Apply for Employment Service jobs online either from home or at touchscreen kiosks in Jobcentres. Place job adverts online with the Employment Service. Get information on jobs, learning opportunities and careers from the Learning and Work Bank (DfEE/ES).
Benefits	Access the Pensions Direct service, which enables customer enquiries and reported changes of circumstance to be handled on the spot, using an Internet-supported telephone service. Receive most benefit payments electronically	Use an interactive pension forecast form. Use a pension claim form via the Government Gateway. Download and complete any DSS claim form by the end of 2001.
Environmental services	Search the Land Registry's database of residential property prices in the latest quarter at regional, local authority or postcode sector levels.	

Table 1.1: Early online services – continued

Area of government	Things that you can do online now	Things that you will be able to do online within the next year
Official information	Search a full index of documents held at the Public Records Office.	
Taxation	Fill in self-assessment tax returns and submit online to the Inland Revenue, receiving a £10 discount.	Fill in your VAT registration online with Customs and Excise.

asset requirements of government of the increasing take-up of electronic service delivery. Government needs to ensure that it tackles people issues effectively to ensure ownership of the ESD agenda, and so that employees see it as an opportunity to learn new skills, rather than as a threat. It also needs to be prepared for the scale of transformation that successful ESD will bring. There are many thousands of people in the public sector whose work involves the operation of paper-based systems, and many thousands more whose work will be affected by the scaling back of physical government networks for delivering services. Not all of these people and assets will be affected, but many will. At the same time, the demand for certain skills in government will rise. In the short term, government will need more IT professionals and, in the medium term, more people trained to provide high-quality customer service.

Priorities must be driven forward

1.20 Critical to becoming a leading e-government is that departments, agencies and local authorities should rapidly bring some key services online so that these can act as exemplars for further progress. There are useful services already online, and the life event services on the UK online portal will be helpful examples of the possibilities for joined-up services. Table 1.1 sets out a selection of the currently available services,

together with the key citizen services that will be available by the end of this year.

1.21 It is equally critical that momentum continues to grow behind the ESD agenda, and to this end the PIU worked with the cross-cutting review to identify priority services for funding. These are set out in table 1.2, together with planned implementation dates. It is important that these priorities are driven forward as quickly as possible.

1.22 Firm dates for implementation will be agreed between departments and the Office of the e-Envoy for other services as part of the e-business strategy process currently under way. Timings will be reflected in departments' service delivery agreements. This process will play a critical part in promoting ESD.

1.23 In addition, rapid progress should be made in implementing joined-up services, by moving quickly to appoint demonstrator product managers for priority customer groups. Provisionally, these should be students, parents, motorists and homeowners. Priority incubator projects should also commence rapidly and an open competition to select the first projects should be completed by the end of 2000.

Implementation

1.24 This report includes a detailed implementation plan to show how the vision of a thriving mixed economy delivering public services can be achieved. This sets

out actions that need to be taken to deliver recommendations and the required changes to realise the overall vision. Individual departments and agencies will have the critical role of delivering services on the ground, and individual recommendations are addressed to a range of bodies. The e-Government Minister and e-Envoy will also have important roles as overall champions of the implementation of the report.

Table 1.2: Priority services identified in the cross-cutting review of the knowledge economy

(Includes business as well as citizen services)	Implementation
By the end of 2000:	
Tax returns – electronic filing of tax returns and online contact centres (IR)	Now
Development of the UK Online citizens' portal, Government Secure Intranet, Government Gateway and other corporate projects (Cabinet Office)	From autumn 2000
Development of the Learning and Work Bank – providing an online service for citizens looking for jobs or training opportunities (DfEE)	Dec 2000
By the end of 2002:	
All HE Student Support application forms online	Spring 2001
Connexions smart card for all young people to help with costs of participation in learning	Sept 2001
Small Business Service – putting the SBS online to provide information and advice to small businesses covering support services and regulation (DTI)	First release in Apr 2001 with ongoing development
VAT – online VAT registration and returns, trade statistics and electronic contact centres (C&E)	Fully in place by Jan 2002
Companies' registration – putting Companies House online to allow electronic registration of companies (Companies House)	Apr 2002
Modernisation of CAP payment systems and farmers' portal providing online applications for agricultural grants and advice (MAFF)	Dec 2002
Culture online – putting a large volume of cultural information across museums, libraries, art galleries, etc online, working in association with the private sector	Dec 2002
The option for local authorities to run small-scale experiments with online voting in local elections	Now to Dec 2002
By the end of 2005:	
Driving agencies – putting these online to deliver licence applications, car tax renewals, driving test applications, etc electronically, and establish links with car insurance databases (DETR and agencies)	2005, but duplicate licences now
Benefit applications – putting benefit applications and payments online (DSS)	Rolling programme from Apr 2002 to 2005
Passport applications – putting passport applications and renewals online (HO)	2005
Conveyancing – enabling electronic land registration (HM Land Registry)	2005
Patents – enabling online patent filing (Patent Office)	2005
Modernisation of legal records – putting transactions between the public and the courts (e.g. civil claims), public records and Children and Family Court Advisory and Support Service into electronic, Internet-enabled formats (LCD)	Dec 2005

2. INTRODUCTION

Background to this report

2.1 The government has recognised the importance of the digital revolution for the delivery of its services, and has already taken significant steps towards capitalising on the potential benefits of electronic service delivery (ESD). Government has already:

- set itself the target that **100% of services will be available electronically by 2005**[1] and committed itself to publishing a report twice a year showing progress;

- set a target that there should be **universal access to the Internet by 2005**;[2]

- published the **e-government strategic framework**[3] in April 2000, identifying a common framework and direction for change across the public sector;

- undertaken a **cross-cutting spending review of the knowledge economy,** as part of the 2000 spending review (SR2000) to identify funding for electronic services and to promote universal Internet access;

- developed a personalised point of entry to a wide range of government services: the **UK online portal for citizens**.[4] The portal, to be launched in autumn 2000, will gradually be developed to provide more functions.

2.2 Additionally, there is considerable further work in hand, including:

- the preparation by departments of **e-business strategies**, setting out how departments will meet the 2005 electronic service delivery targets;

- the implementation by departments, agencies and local authorities of **early examples of electronic services**, including, for example, NHS Direct and the tax self-assessment service;

- **the Government Gateway project** to provide a secure and reliable communications infrastructure, so that citizens and businesses can have continuous direct online access to government services;

- **the Government Secure Intranet** (GSI): a managed infrastructure linking departments' networks in a secure manner;

- publication of the **UK online annual report** setting out the UK's progress on e-commerce and e-government.

2.3 In the light of this work, the Performance and Innovation Unit (PIU) was asked to develop a strategy for the electronic delivery of government services. Details of the role of the PIU and of the project arrangements are set out in annexes A and B.

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[1] *Government to speed up introduction of online services,* Downing Street Press Notice, 30 March 2000.

[2] *Prime Minister's speech at the Knowledge 2000 Conference,* 7 March 2000.

[3] *E-government – A strategic framework for public services in the Information Age.* Cabinet Office. April 2000.

[4] www.ukonline.gov.uk from late 2000.

Scope of the study

2.4 This project looks at government service delivery to the citizen. It covers central and local government and the wider public sector, but does not look at service delivery to business, or at procurement.

2.5 In Scotland, Wales and Northern Ireland, the devolved administrations are responsible for deciding their approach to developing and implementing electronic service delivery in respect of devolved services, including health and local authority services, and for the preparation of appropriate IT strategies. The Joint Collaborative Group which the Scottish, Welsh and Northern Ireland Information Age Government Champions have established with the e-Envoy's office will help to ensure that strategies in Scotland, Wales and Northern Ireland remain fully compatible with the approach across the UK. Consideration and implementation of many of the recommendations of this report in Scotland, Wales and Northern Ireland would therefore fall to the devolved administrations.

Structure of this report

2.6 This report first sets out a vision for government electronic service delivery to the citizen, then describes the barriers to its achievement, the solutions to these challenges and concludes with an implementation plan. Accordingly, the chapters that follow are:

- Chapter 3: A Vision for the Electronic Delivery of Government Services

- Chapter 4: The Benefits of Electronic Service Delivery

- Chapter 5: Meeting the Challenge of Electronic Service Delivery

- Chapter 6: Reaching the Citizen

- Chapter 7: Creating a Mixed Economy Delivery Market

- Chapter 8: Organising Government to Deliver

- Chapter 9: Implementation

The financial implications of this report

2.7 This report contains 43 recommendations, which will require action by a range of departments, agencies and local authorities. The PIU team has worked closely with HM Treasury as part of the cross-cutting review of the knowledge economy to ensure that where the costs of the recommendations cannot be accommodated within existing resources, funding allocations reflect additional costs. In particular, the review set aside £1 billion for electronic service delivery, largely ring-fenced within departmental expenditure limits. Additional funding of £4 million per annum has been allocated to the Office of the e-Envoy to carry out additional functions proposed in this report, and money has been ring-fenced for projects undertaken by the government incubator.

3. A VISION FOR THE ELECTRONIC DELIVERY OF GOVERNMENT SERVICES

Transformed lives? – A future for government electronic service delivery

Anthony was asleep. Gail and John sat down in front of their TV and switched into the TPA Travel Portal. Having identified themselves they were greeted by a smiling digital face of a woman.

'We want to get directions from our house to Newquay in Cornwall,' John said. He gave the name of the hotel. It was their first holiday in two years tomorrow. A combination of Anthony, now an energetic toddler, and work had prevented them from taking time away up to now. Gail was heavily pregnant with their second child but both of them needed the holiday.

'OK, John,' began the guide. 'A good way to do that is to…'

As the guide spoke, detailed maps appeared on the screen to illustrate the spoken words. When it had finished it asked if they wanted the directions stored and sent to their mobile phones. They eagerly agreed to this, starting to get excited about the trip, and the guide went on to say,

'If you would like, I can track your position through your mobile phone as you travel. This will allow me to guide you past traffic obstructions and send your position to your breakdown service should you have any problems. This will cost a one-off fee of £10. Are you interested?'

Gail nodded and John said that they were. He instructed the service be directed to his phone.

The guide asked them to wait while it checked for other information relevant to them and their trip. After a few seconds it announced,

'Gail, I am informed by NHS Direct that there are health considerations you might want to take into account for this trip. Would you like to go to NHS Direct now?'

Gail agreed to this. The NHS Direct site, represented by a little cartoon doctor, welcomed her. Commenting on the advanced nature of her pregnancy, it asked if she wanted the contact details for hospitals near the hotel in Newquay.

'Please send them to my phone,' Gail said.

NHS Direct also asked her if she wished to authorise the immediate release of her medical records to any Newquay hospital to which she might be admitted. She and John discussed this briefly, reaching the conclusion that it was alright. The NHS Direct site registered her acceptance, going on to say that the TPA Travel Portal was still online with more points for communication.

They returned to the smiling face, which cheerily said,

'Welcome back to the TPA Travel Portal, John and Gail. The road tax on the New Generations car that you own expires in three days, on 31 July. I can renew it for you, but your car will need to pass an MOT test first.'

They stared glumly at the screen. Then Gail looked at her husband accusingly.

'Really?' she said.

The guide, which had been quiet while it conducted a search, informed them,

'I can book you into a TPA Travel Portal approved garage for an MOT once you reach Newquay. Would you like me to do this now?'

They sorted out arrangements for this, after which the guide offered to let the police know of the length of time they would be away.

'This is entirely optional and for your peace of mind while you leave your house empty. If you wish I can put you on to the Police Service Portal, where you can also take up this option directly.'

They decided to tell the guide the dates and received confirmation that the police had the information.

Finally the guide asked,

'Do you want to see a short sponsored film on checking your car is safe for the journey?'

John put his hand over the voice link.

'I don't know if I need that really,' he said.

Gail treated him to a silent look that led him to lift his hand and say,

'Yes, I'll have a look.'

ESD will transform public services to focus on the citizen

3.1 Over the next five years, government service delivery will be transformed. By 2005, the public, informed by their experience of private sector delivery, will demand no less. This chapter paints a picture of how we think government service delivery will look if it is to meet customer expectations.

3.2 The current pace of technological change means that there are few certainties about future service delivery. But we do know that ESD has the potential to offer truly citizen-focused services:

- **citizens will choose when and where they interact with government.** For many services, government will be open 24 hours a day, 7 days a week. Citizens will be able to interact with government from home, at work or on the move. NHS Direct is an early example of how this might be achieved;

- **services will be delivered through multiple channels.** Traditional channels will compete with new electronic channels.

As well as the public sector, the voluntary and private sectors will offer new interfaces to government services. For example, you may pay tax through your electronic bank or renew your driving licence through your favourite motoring portal;

- **government will be organised to deliver services that are customer focused.** A Government Gateway will allow the aggregation of data across functions by users of that data in the private and voluntary sectors, and by new aggregators acting as wholesalers in government data and information. New citizen-facing government, voluntary and private sector intermediaries will compete to offer the best combinations of services.

3.3 Some elements of that vision are set out in figure 3.1.

## *Joined-up customer-focused services will be available over a range of channels…*

3.4 Interactions with the citizen can be tailored better to the citizen's needs, as

ESD overcomes the artificial separations between services imposed by the separate infrastructures through which services are currently delivered. Joined-up, 24-hour services become a reality as soon as they can be delivered electronically.

3.5 An important part of the vision is the set of web-enabled physical channels. Where there is a fully online service, these physical outlets will be supported by the same technology as the channels going direct to the citizen. They will provide access to the services and thereby spread the benefits of ESD to those not able to interact directly. They may take the form of physical networks similar to those we know today, or mobile facilitators, spreading the benefits of ESD more widely.

3.6 Where a service cannot be fully web-enabled, the existence of ESD can still be used to enhance the experience of the service user. Even where a human interaction is a key component of a service, there may be many other aspects of the service which can be web-enabled. For example, in healthcare, appointments can be booked,

Figure 3.1: Vision of future ESD
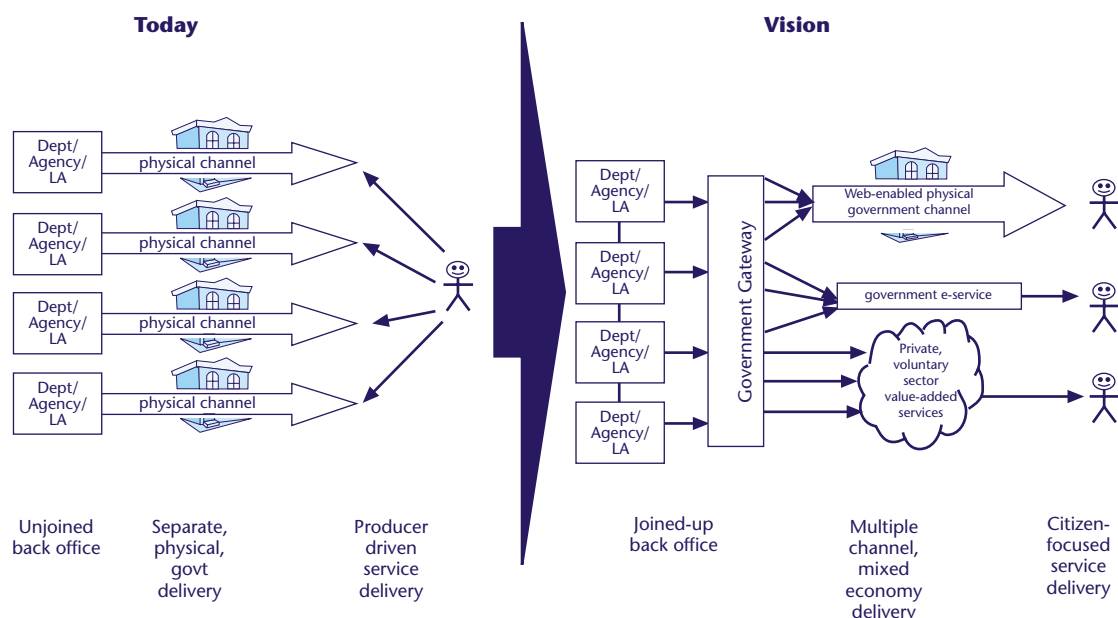
prescriptions sent direct to a pharmacist for immediate collection, and the need to visit the doctor at all for a repeat prescription eliminated. Moreover, those involved in delivering services face to face will be supported by electronic systems: the doctor's ability to help the patient can be enhanced with the right systems, such as electronic patient records and databases of prescription drugs.

… delivered by public, private and voluntary sector providers in a new 'mixed economy' market…

3.7 One key feature of the vision is that many services will be provided through private and voluntary sector channels in competition with one another. In the past government has only been able to interact with citizens through physical channels. In particular, it has been obliged to build a variety of formal and informal physical networks to deliver its services (such as Jobcentres, town halls, post offices). The existence of the Internet means that there is a parallel channel for interaction between citizen and government.

3.8 An example would be a private sector student portal. The portal would provide a range of services to the student, concerned perhaps with accommodation, careers, holiday work and so on. It might well want also to act as a channel for university admission applications and student loan applications, because that would bring large numbers of its target audience to the portal. ESD makes this a viable proposition because it reduces transaction costs to such an extent that the costs of provision can be outweighed by the benefits to the provider of a larger audience.

3.9 The student benefits from the arrangement, because a number of providers will compete for their custom, driving up quality. The government benefits from this

arrangement, because its delivery costs are cut. The private and voluntary sectors benefit as they attract more people to use their services.

… as part of a modernised and re-invented approach to service delivery

3.10 All of these considerations mean that government will be able to achieve its objectives more effectively. To what extent it can also do so more efficiently will vary by service. Where a service is transactional or the provision of information, then the potential savings are very great. The high costs associated with paper processing can be avoided, and government can rationalise physical channels. Those that remain will be web-enabled, guaranteeing both access to services and the benefits of ESD.

3.11 For other key types of service, where face to face meetings are essential, the cost implications are much more complex. For example, personal social services could be enhanced in a number of ways by giving those providing the service mobile access to good back-up systems. However, it is not clear that this would lead to efficiency savings in all cases. Nonetheless, even in this area, the Care Direct initiative is finding a way of enhancing efficiency through ESD by offering an alternative, joined-up channel for health and social care services, and hence providing a more convenient alternative to face to face interaction in some cases.

3.12 With changes to government service delivery will come major changes to government itself, on a far greater scale than is currently being planned for. In our vision of the future, many fewer people will be needed to deal with 'back office' paper and transaction processing. In the front office, perhaps more will be involved in direct customer-facing roles, but many fewer of

these will work in existing physical networks. A rather higher proportion than today will work in one-stop shops, and more in call centres designed to provide access and to support online transactions.

A vision grounded in four key principles

3.13 The vision will not be achieved overnight. Government needs to begin to move there, not least by sorting out its back office and beginning to bring its services online. However, it needs to ensure that all the actions that it takes help it to move towards the vision, and that it does nothing that will prevent it from realising its ultimate goal.

3.14 To this end, as government moves towards the vision, it should observe the following principles:

Principle one: Focus on improving government services for citizens

- Priority areas are those which make the most difference to the citizen:

  – where the transaction volumes and user numbers are high;

  – where there is interaction not just publication;

  – where services can be joined-up.

- Take-up of services must be the key driver of investment and the key performance indicator.

Principle two: Create competitive pressure

- Open up electronic delivery of government services to the private and voluntary sectors.

- Do not make exclusive contracts for front-end delivery – avoid private sector monopolies.

- Let electronic delivery compete with traditional delivery inside government.

- Make the Internet the backbone to ESD, but allow multiple entry routes.

Principle three: Reward innovation, accept some failure

- Get going quickly, and keep learning from mistakes.

- Set ambitious goals, informed by citizen preferences.

- Begin with prototypes that can be built quickly and tested.

- Quickly scale up successful prototypes for launch.

- Be ruthless in weeding out unsuccessful government e-ventures.

Principle four: Push for efficiency savings

- Wherever possible ESD should substitute rather than complement traditional delivery.

- Determine the trade-off between trust and income (e.g. advertising) for each service.

4. THE BENEFITS OF ELECTRONIC SERVICE DELIVERY

Summary

Currently government services are largely delivered through a single, often paper based, channel, involving face to face interaction and frequently attuned to the needs of the service producer rather than the user.

The vision for electronic delivery of government services is to move to multi-channel, mixed public and private delivery of citizen-focused services.

If this is achieved, it will radically improve services to the citizen as consumer, transform government operations, reducing costs to the benefit of taxpayers, and ultimately enhance UK economic performance through increased public sector productivity.

Introduction

4.1 Government has recognised that as a major processor of information it can be a significant beneficiary of the information and communication technology (ICT) revolution. In the following sections we delineate the benefits more fully, showing that ESD can:

- benefit the citizen as a consumer of government services;

- benefit the citizen as a taxpayer; and

- act as a catalyst for enhanced UK economic performance.

ESD will hugely benefit users of government services

4.2 Government services can be categorised in many different ways. A useful distinction is between published, interactive and transactional services, as set out in figure 4.1.

4.3 Across all of these types of service, citizens' expectations of quality are rising as new services from the private sector are delivered faster and more conveniently using ICT. The challenge to government is to match and even surpass these expectations: ''Government will be compared to the cream of the private sector''.[5] Government can do this in two ways:

- firstly, by using ESD technology to enhance existing services;

- secondly, by creating wholly new electronic services.

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[5]   Martha Dorris, Office for Intergovernmental Solutions, US Government. Washington DC. 8 May 2000.
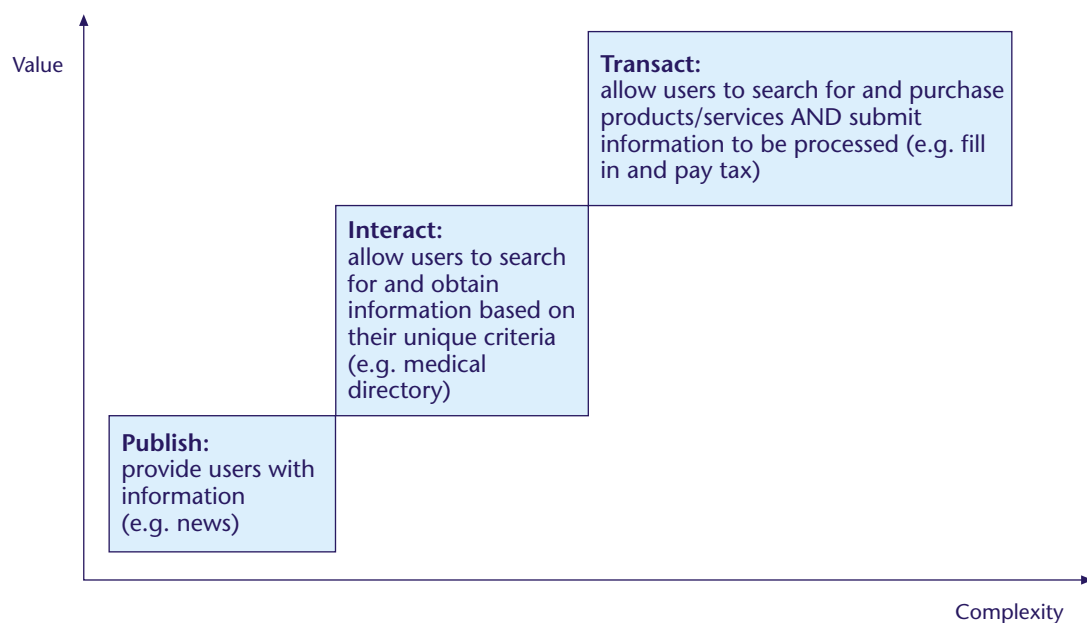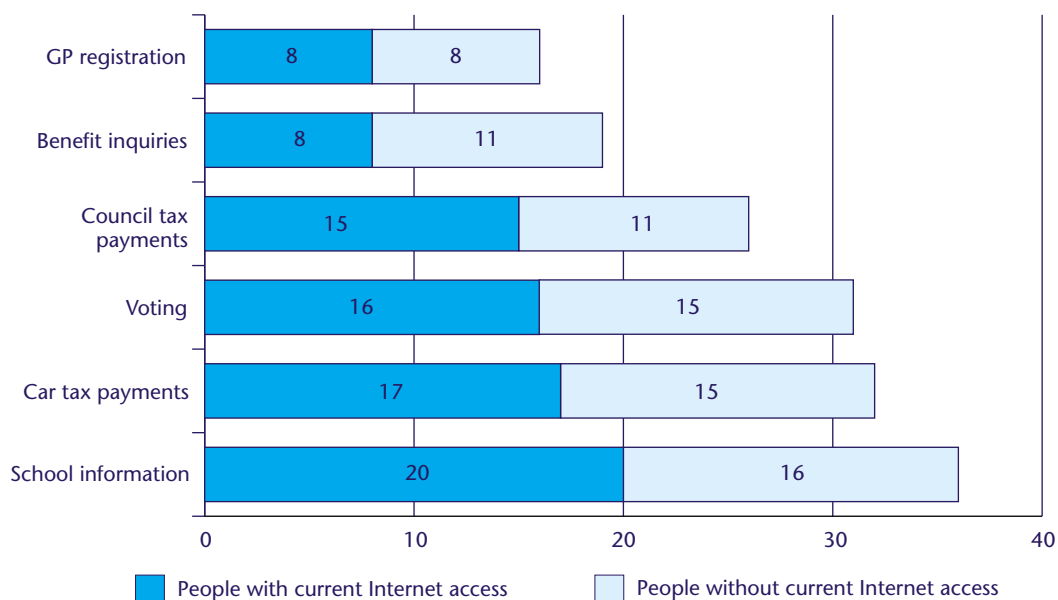
Figure 4.1: Basic service typology

Figure 4.2: Online transactions with government will be acceptable

What citizens believe they are most likely to do electronically in three years' time (2003) (per cent)

Source: KPMG, Financial Times, May 2000. Sample: 2,115

ESD will improve the quality of existing services

4.4 It may be published or interactive services that ESD can most quickly improve, and most people envisage first using ESD for services of this sort.[6] Citizens are positive about the use of new technology for these types of service:

"It will be good for information."

"In getting information this will be better than traditional methods." [7]

"It's a lot quicker on the Internet than it would be in a telephone conversation." [8]

Encouragingly, as shown in figure 4.2, recent polling suggests that citizens are ready to contemplate transacting online in the near future.

4.5 All services can be enhanced by the use of ESD. Table 4.1 sets out examples of **enhancements to existing services** that are already taking place in this country and abroad.

4.6 As this shows, useful public services are already being electronically delivered in the UK. In response to the targets that have been announced, advances are being made across central government. Other examples of progress within UK government have already been set out in table 1.1.

Table 4.1: Examples of services enhanced through ESD

Example Area	Internet Location	Example of Enhancing Service
Health	www.nhsdirect.nhs.uk (interactive)	Citizens can type in symptoms to receive preliminary advice.
Education	www.ecitizen.gov.sg (transactional)	Parents can apply for school places for their children.
Benefits	www.centrelink.gov.au (transactional)	Citizens can set up benefits to be paid directly into their account by the State, removing the need to go out and collect them.
Employment	e.g. www.monster.co.uk / www.jobsite.co.uk (interactive and, sometimes, transactional)	Citizens can get job information, news and articles relevant only to them emailed as soon as they become available. Additional transactional services are developing.
	www.employmentservice.gov.uk (published)	Displays job vacancies online.

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[6] See, for example, *View from the Queue*. Cabinet Office/BMRB Research. October 1998. p20.

[7] C1C2 females, 35+, active Internet users in *What's in IT for the Citizen? Delivering Public Services through Electronic Channels*. Research conducted for PIU. MORI. April 2000. p22.

[8] C1C2 male, 25-34, active Internet user *ibid*.

Table 4.1: Examples of services enhanced through ESD – continued

Example Area	Internet Location	Example of Enhancing Service
Taxation, bills and fines	www1.maxi.com.au (transactional) www.ci.boston.ma.us (transactional) www.inlandrevenue.gov.uk/sa (transactional)	Citizens can pay multiple bills (energy and water) in one go. Citizens can pay parking fines online. Citizens can fill in and send self-assessment forms online with a £10 discount for doing so.
Environmental services	www1.maxi.com.au (interactive)	Citizens can request garbage collection.
Official information	www.open.gov.uk (published)	Contains links to government sites, many of which offer information for free which, for example Government White Papers, would cost money if purchased physically.
Banking	e.g. www.firstdirect.co.uk; www.smile.com (transactional)	Citizens can pay money from their account into somebody else's account online, without having to write and sign a cheque.
Travel	www.thetrainline.co.uk (transactional)	Citizens can plan a rail journey and purchase the ticket for that journey online.

4.7 Away from central government, some local authorities are making very good progress in using new technology to deliver better services. For example, Lewisham (www.lewisham.gov.uk), Knowsley (www.knowsley.gov.uk), Newham (www.newham.gov.uk) and Bristol (www.bristol-city.gov.uk) have all introduced innovative services. For example:

● **Lewisham Council** is using ICT to integrate its back office as a foundation for better service delivery. It is pushing ahead with its 'integrated service prototype' – enabling joint working between council staff and the Benefits Agency.[9] Like other authorities, it takes part in projects like the National Land Information System (NLIS) and NHS.net, which require data sharing between local and national government. Lewisham has also used new technology to transform its approach to serving the citizen. It has moved from a traditional system of junior staff facing the customer with managers in the back office to more senior staff in customer-facing roles, supported by junior staff and electronic systems. ''Front line staff can champion the customers … they can quickly respond by chasing customers' queries across the different systems.''[10]

● **Newham Council** is using technology to support one-stop Local Service Centres and a single call centre. The call centre is already being heavily used for a variety of services. Requests for information make up the bulk of calls, and the centres are used

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9   *Where it's @: Lewisham's strategy for getting connected.* Dave Sullivan and Barry Quirk. 2000. p26.

10   Lesley Burr, Head of Public Services in Lewisham, conversation with PIU. June 2000.

particularly by those seeking advice on benefits or council tax.

4.8 ESD therefore presents a major opportunity to enhance existing services, but perhaps even more significantly, it allows new services to be created, which could not be delivered via traditional channels.

... and lead to the creation of wholly new services

4.9 Government can use ESD to exceed citizens' expectations, but to do so, it must systematically create and develop new services. At the moment this process is very much in its infancy, but examples include the following types of service:

- **Matching:** services matching up citizens with specific services and other citizens relevant to them at a particular time and in a certain area;

- **Personalising:** services that are formulated for the needs of a single individual and no one else. The individual or the service provider can shape them;

- **Pulling together:** services that bring together in one place information on and services relevant to an issue or group of citizens;

- **Democratising:** typically services that allow citizens to express views. In the Netherlands, improved citizen participation in government is at the core of the e-government strategy.[11] In the UK, Lewisham, for example, recognises "real prospects for substantive and short order change to enliven local civic life by using web-based technologies to enable swift and effective connection, communication and dialogue between local political groups, community associations and relevant actors."[12]

4.10 As an illustration, table 4.2 shows new service ideas under each of these headings.

Table 4.2: Examples of innovative services

Sort of Service	Examples
Matching	*Education opportunities matcher:* matches up, for citizens, the educational opportunities in their area and on the Internet (including, for example, online mock tests in anticipation of a child, for example, taking GCSEs).
	Health opportunities matcher: uses the population's health records to identify trends and statistical correlations. Could then apply them to individuals to give advice on how to prevent illnesses and conditions they might be more likely to get.
	For citizens, matches the health care opportunities in their area and on the Internet relevant to them (perhaps on the grounds of age and medical history).
	Enables citizens to send symptoms over the Internet when booking an appointment, so that a doctor can start thinking about diagnosis before appointment.
	Consumer affairs infrastructure matcher: informs citizens about local companies. It could also provide a link between citizens with similar experiences or those who want to learn from others. For instance, www.improveline.com recommends builders and associated professionals in specific areas, having screened them through a four stage scrutiny process of credit history, legal history, years in business (no less than two) and customer comments.

[11]   Interview with Daphne de Groot of Ministry of the Interior, Netherlands Government. The Hague. 15 May 2000.

[12]   *Where it's @: Lewisham's strategy for getting connected.* Dave Sullivan and Barry Quirk. 2000. p15.

Table 4.2: Examples of innovative services – continued

Sort of Service	Examples
Personalising	*Location-specific information provider:* informs citizens as they travel, for example, of the up-to-the-second integrated transport information relevant to their time and place. This could, for instance, help the citizen choose between different modes of transport. It could possibly be delivered through a mobile phone.
	Portal personal profile: a personal profile held by the government but monitored and updated by the individual citizen. This can be sent anywhere as a certified statement of personal details, for instance when applying for a passport – saving the citizen and the Passport Agency effort.
	Personal government champion: an individual within government who could, as a result of intranet capability, pursue a single citizen's best interests through central and/or local government. Through the Internet (as well as by phone) he/she could interact with the citizen and preside over the delivery of services to that citizen, being proactive as well as responsive in attending to the needs of the citizen.
	Online monitoring capability: individual citizens can monitor data held on them by government and can monitor progress made in delivering a service.
Pulling together	*The personal Budget:* informs citizens, comprehensively, how the Budget will affect their core financial status.
	Proactive information gathering and service delivery: Finland's tax proposal service draws together all relevant information on the citizen (from banks and insurance companies) then completes that citizen's tax assessment form and presents it to the citizen as a proposal, requesting signature.
	Segmentation-centric data collection: A service that pulls together all government services relevant to a group, such as older people, e.g. www.seniors.gov (Access America's seniors' site). Draws together information and transactional government services relevant to older people.
Democratising	*Tax/licences. Single Government Account:* enables individual citizens to monitor what they have paid to government and what they still owe, and to pay it (for example, income tax, Council Tax, TV licence, fines, etc).
	Online voting: enables citizens to vote for their constituency MP from anywhere in the country, or abroad, through the Internet. The tally is instantly counted by computer, allowing a longer time period in which citizens can vote. For instance, electronic voting was used in the Arizona Democratic primary in the US in March 2000. It increased turnout by 600%.
	Online policy units: involve citizen groups in policy formulation. This could, for example, allow those with an expertise, not formally tapped by government, to get involved and influence better policy formulation.

4.11 However, if government is to develop ideas in the best way for its client groups, then it must systematically understand the needs and preferences of these groups, and the impact on citizens of what it does offer. It could, for example, make use of the People's Panel (a representative sample of 5,000 people) to begin to do this.

4.12 Government therefore has the chance to increase citizen satisfaction and improve its reputation for service delivery. The nature and scale of this improvement could change the relationship between government and the citizen.

The relationship between the citizen and state will be changed fundamentally as a result

4.13 Besides radically improving service delivery, ESD can have a fundamental effect on the relationship between government and citizen. Some in consumer groups see this as a revolutionary opportunity:

''There is a chance to create a positive inequality in the relationship between citizen and government in this context – with power shifted to the citizen.'"[13]

4.14 Firstly, new technology can enable citizens to **monitor**, access and even alter data that government holds on them. ESD raises many questions about the use of personal data by government but it also provides an opportunity for unprecedented transparency and openness.

4.15 Secondly, ESD technology will also make possible new **democratising** services (see paragraph 3.10). These will enable citizens to be consulted more frequently and effectively on a range of issues. Practical implementation will require much thought, since citizen and government alike could abuse the option for frequent mass opinion gathering; and only with essentially universal access does electronic voting become legitimate.

4.16 However, these benefits to the consumer are only one part of the story. The second is the benefits to the taxpayer that ESD can bring.

ESD will improve value for money for the taxpayer

4.17 In two ways, digital technology can be a key enabler of the UK Government's modernising agenda, making government more productive and reducing the administrative costs of the state:

- by **redefining delivery networks**. If traditional physical networks can be scaled back, then substantial savings can be generated;

- by **benefiting from new partnerships**. Opening up its information assets can reduce the workload of government in unilaterally handling information and managing risk on behalf of the citizen. Innovative partnerships between the public, private and voluntary sectors can then be formed, reducing government delivery costs further.

Transforming existing physical channels…

4.18 Government has for a long time used large physical networks to deliver its services. Some of these are formal, like benefit offices; others informal, like community pharmacies. The new technology changes the logic for such networks. Many of the services presently delivered via physical networks could be delivered electronically, and as figure 4.3 suggests, this could be very much cheaper.

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[13]   Anna Bradley, Director – National Consumer Council (NCC). 1st Advisory Group meeting of the ESD Project. 24 February 2000.

Figure 4.3: Online transactions are very cheap

a) Cost of a typical banking transaction

Counter	$1.07
ATM	$0.27
Internet	$0.01

(scale: $0.00, $0.50, $1.00, $1.50)

b) Cost of a typical travel reservation

Travel agent	$10.00
Internet	$2.00

(scale: $0.00, $5.00, $10.00)
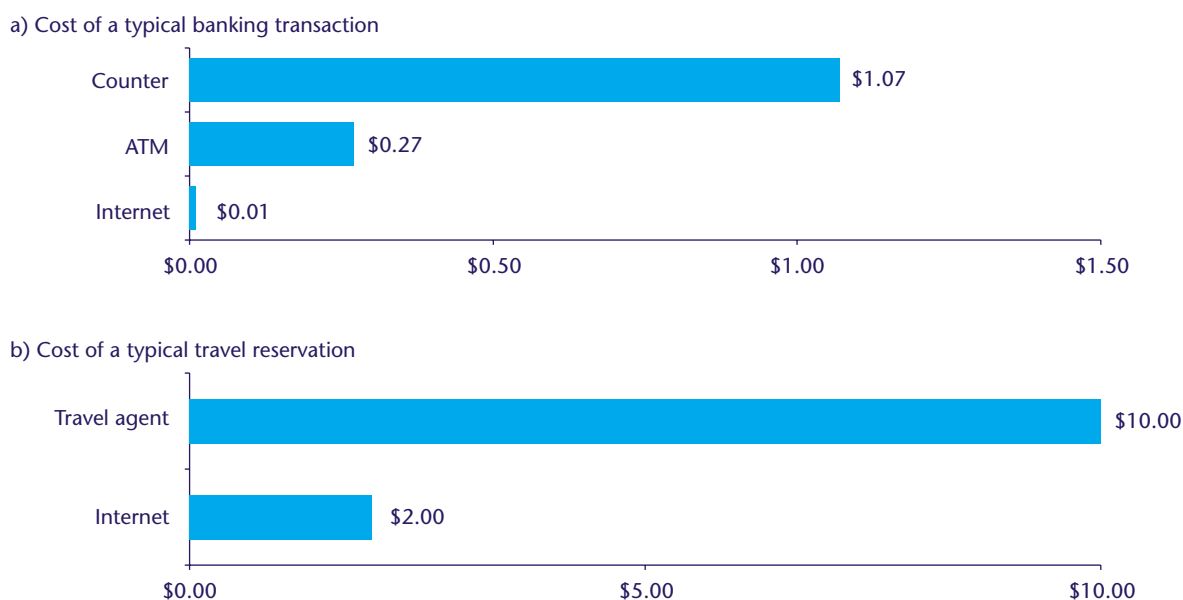
Source: based on information from Lucent Technologies marketing costs; Help Desk Institute; Technical Assistance Research Program (TARP); Purdue University Centre for Customer Driven Quality – analysis by TARP and Andersen Consulting.

4.19 As a result of ESD, it will increasingly be possible to create long-term cost savings by rationalising traditional networks. In some sectors, ESD-related rationalisation of physical networks is already happening in the UK.

- **Banks:** Use of high street bank branches is declining. For example, the proportion of Barclays customers using a branch for day to day transactions fell from 56% in 1994 to 36% in 1999. Banks are now examining the future of their networks: between December 1989 and December 1999 the number of bank branches in Britain fell from 17,100 to 12,144.[14] The impact of telephone and online banking is a key factor.

- **Local government:** Newham has decided to replace existing physical outlets with six one-stop shops (scattered around the borough) and one central call centre.[15]

4.20 All will benefit from changes to the face of the state – whether these are channelled into better, more efficient services or a lightening of the tax burden.

... and opening new opportunities for partnership working

4.21 An important function of government has been to collate, analyse and apply information for a variety of purposes, including determining and pooling risk on behalf of the citizen. By enabling low cost, immediate access to that information, new technology has reduced the need for this role. In a variety of areas, individuals are increasingly able to carry out the task themselves, assisted by private sector players who can bundle and manage information. This increased access to *better* information means that there are fewer market failures relating to individuals' inability to assess risk on their own. There is therefore a reduced role for government, and hence reduced costs.

4.22 Successive governments have had to think about the most effective way to pay the large and increasing cost of running the Welfare State. However, government's

[14] HM Treasury figures. June 2000.

[15] Interview with Simon Norbury, Assistant Chief Executive Officer (IT and Business Management) Newham Council. Newham. 3 March 2000.

non-physical assets (information and knowledge) have remained largely untouched by the changes of the 1980s and 1990s. There is a real opportunity for the taxpayer to obtain significant benefits from new kinds of public private partnership and there are already several examples of how such partnerships might look.

4.23 The potential is widely acknowledged. ''Already leading governments around the world are placing services online and forging alliances with outside providers to acquire the necessary technology and capability.''[16] For example, ''all information produced by the federal government [of the United States] is made freely available to the private sector – to repackage and sell on in innovative ways, which could add value for the customer.''[17]

4.24 Companies can profit from playing various roles. Table 4.3 sets out some examples internationally, which include: taking on non-core back-office services; reformatting information for the government; and relieving demand on public services.

4.25 There are opportunities for cost savings and extra revenue for government as well. For example, it can make savings from outsourcing work; it can sell its information; and it can allow advertising on its web-sites. These are sometimes contentious options, but they highlight the potential that ESD has for providing government with new funding streams.

4.26 Whatever form it takes, such a redefinition of the role of government could make it possible for government to save money in the long term while dramatically improving services. Furthermore, such a transformation of government could affect the performance of the UK economy, especially in e-commerce.

ESD will support improved economic performance

4.27 The overall impact of the Internet on economic performance is still being debated, but it is clear that the greater transparency in markets that it brings and the reductions in search, transmission and inventory costs are facilitating competition, stimulating innovation and driving down prices. It is also clear that innovation and research and development, as exemplified in the ICT sectors, are key drivers of long-term growth.

4.28 While these are processes essentially of the private commercial sector, the government also has a role. The Internet was created and developed in public sectors around the world and the British government can continue to provide impetus to its development. Through implementing its e-strategy, government can make a major contribution to raising productivity in the entire British economy.

By helping to raise investment levels…

4.29 Closing the UK's investment gap with Europe and the US is an important driver of government economic policy. It can do this through public investment and by creating new investment possibilities for the private sector. While much new public investment will be in traditional public infrastructure, ICT investments will also be significant. Through public private partnerships, government can share its investment opportunities.

[16] *Vision 2010. Forging tomorrow's public-private partnerships.* Economist Intelligence Unit and Andersen Consulting. 1999. p2.

[17] *E-commerce@its.best.uk.* Report by PIU. September 1999. p95, paragraph 11.21.

Table 4.3: International examples of private sector involvement

Example	Comment	Financing/revenue
MAXI	**Maxi** was launched in December 1998 as a one-stop shop delivery system, bringing together government services through telephone (interactive voice recognition), Internet and public kiosks. It offers seven types of service: ● making a payment; ● acquiring a product; ● booking a service; ● changing customer details; ● monitoring progress; ● providing customer feedback. In procurement, the tender required ''a system [that] could support multiple agencies at different levels of government, as well as multiple delivery channels.''[18]	The system was built at a total cost of A$10m, but no cost to the government. However, for each service action carried out via Maxi the government is charged 80 cents to A$2 by NEC.
Ezgov	**Ezgov.com**, founded in early 1999, is essentially a software company. It ''develops and supports transactional Web applications for local and state government agencies''[19] and through its web-site, gives information on all aspects of government. It does also host clients' web-sites, processing payments and reporting transactions. It allows citizens to: ● pay parking and traffic tickets; ● renew car registration; ● renew and pay drivers licence; ● contribute to political candidates; ● obtain building permits.	Main revenue to come from selling software. Convenience charges levied on citizen or government, when agreed by Ezgov and the government in question. Monthly subscription fees charged to government for web-hosting.
National Information Consortium (NIC)	**NIC**, formed in 1991, is one of the older e-government companies. The company builds enterprise portals for a range of US states. It offers business-serving applications, as well as services for the citizen, including: ● car registration; ● income tax filing; ● legislative tracking systems; ● election results monitoring; ● public meeting calendar; ● state court information systems.[20]	Revenue is secured by winning bids for government portals, through standard tendering process. It then uses ''fixed price, transaction-based and gain sharing contracts.''[21]

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[18] *E-Government – an international study of online government*. Kate Oakley, commissioned by Cable and Wireless Communications. February 2000. p14.

[19] www.ezgov.com

[20] *Citizen-facing government portals: profiles of an emerging provider class*. Dataquest. 10 January 2000. p8.

[21] *Ibid.*

…encouraging enterprise and innovation…

4.30 By opening up markets for new electronic services, government can stimulate innovation. By improving its capacity to work with smaller businesses it can ensure that industry incumbents are challenged to remain competitive. Recent work by the OECD (1997) highlights the impact on productivity growth that the entry of new innovative firms can have. Evidence from Italy in the 1980s and the US in the 1990s suggests that it is new, high technology businesses that generate growth in high quality employment and output. Moreover, a combination of appropriately priced access to government information and electronic access to government will provide the demand for a huge range of potential new services which will generate employment, income and international demand.

…improving skills…

4.31 Electronic government service delivery has to be accompanied by a universal policy that ensures that all members of society have the skills and the equipment to participate equally. This nation-wide stimulation of ICT skills, already beginning through IT learning centres, libraries and subsidies for equipment, will enable the country to access all Internet services. Direct government demand for ICT services, to develop intranets and web-sites and transform its databases, is helping to develop skills in a sector which has huge export potential. The greatly enhanced potential for collaboration between public and private sectors presented by ESD can help diffuse skills and technology throughout the economy – from private to public sector and vice versa.

…promoting competition and clear technical standards…

4.32 By creating market opportunities in new government services in such a way that incumbent firms do not have an unfair advantage, government can ensure a soundly competitive basis for this important new sector. Clear technical standards (e.g. for security and data protection) for its own services will be an important contribution to promoting that competition and may influence the setting of standards internationally.

…and so raising public sector productivity and the sustainable rate of UK economic growth

4.33 The introduction of new ICT will be the vehicle for comprehensive modernisation of government, with the potential to improve policy-making and reduce administrative inefficiencies. Public private partnerships for ESD will enable government to learn and benefit from the skills and management methods of the private sector. And together they can work not only to reduce costs but also to improve outcomes. Ultimately, if public sector productivity is increased, this raises national productivity. The result – a higher sustainable, non-inflationary rate of economic growth.

4.34 In summary, this chapter has shown some of the ways that ESD can benefit the whole of the United Kingdom. It can deliver new and improved services to the citizen. It can drive forward a major and innovative modernisation of government and, consequently, it can help the UK's economic performance. Realising these benefits will not be easy. Barriers exist that will have to be overcome, within government and amongst citizens. It is to these, and the options for breaking them down, that we now turn.

5. MEETING THE CHALLENGE OF ELECTRONIC SERVICE DELIVERY

Summary

The benefits of ESD are real and achievable. However, there are major challenges to be overcome by government if it is to realise these benefits for the citizen and the taxpayer.

These challenges fall under three headings:

- reaching the citizen;

- involving the private and voluntary sectors; and

- organising government to deliver.

5.1 There are many possible concerns about the vision that we have set out. If government follows the principles set out in the vision, then both service improvements and cost savings are genuinely achievable. However, poor implementation could lead to the very opposite: services that are no better, and no more efficient, despite the heavy investment made. This chapter sets out concerns about the current position and about the vision and its achievability. It explains the challenges that this report addresses.

Government services are complex…

5.2 The public sector has a significant range of very different services provided to very different client groups. On one analysis by the IDeA, from an information management perspective a typical unitary local authority has 706 functional areas, compared to around 12 in a typical bank. Not only is there a large number of services, but these form a very diverse collection.

5.3 The previous chapter outlined a basic typology of published, interactive and transactional services. A simple split of the more interactive part of this spectrum shows that major areas of government service are:

- collecting tax and revenue – such as income tax, council tax, and parking fines;

- paying benefits and allowances – such as council tax benefit, job seeker's allowance;

- issuing permits, passes and licences – such as driving licences and passports; and

- providing 'content rich' services – such as education, health, personal advice.

Within each of these categories, there may be a significant number of very different actions. For example, obtaining health care may involve arranging an appointment, visiting a doctor in person, obtaining a prescription and obtaining a drug. The

potential uses of ESD at each stage may be very different.

5.4 The implications of this number and range of services are profound. Bringing different types of services online may present very different challenges. For benefit payment, security considerations are critical, and there is a need for strong authentication that the applicant is not posing as another person. For services where human interaction is crucial, a greater difficulty may be to establish how ESD can best be used in support.

5.5 Government therefore faces a very difficult challenge in bringing such a wide range of complex services online. It is therefore perhaps not surprising that progress has been patchy.

… Government online is at an early stage …

5.6 Government remains some way from realising the potential of ESD. At the end of 1999, the NAO report, *Government on the Web* found ''the provision of [web] site facilities still in its infancy'', and that government web-sites are information giving ''but have few more advanced features or interactive capabilities''. It noted that ''responses … to the development of the Internet and the Web have been patchy and relatively slow''.[22]

5.7 Truly transactional citizen services have only begun to be developed with the introduction by the Inland Revenue of self-assessment tax returns. The latest monitoring report on electronic service delivery shows that 152 of the 457 services detailed in central government departments' service delivery agreements were available electronically.[23] Around 50 of the 152 are

services direct to the citizen and at most four of those 50 transactional.

5.8 In local government, a number of authorities have developed sophisticated, attractive and useful sites. Even so, fully transactional services are few and far between and progress remains mixed, with a number of authorities continuing to have no online capability at all. Of the 467 local authorities in the UK, 401 (86%) have web-sites.

- 58% are promotional
- 34% are content (some interaction)
- 8% are content plus (advanced interaction)
- 0% are transactional[24]

… and government is not well placed to take advantage of new technology

5.9 Government is not well placed to take advantage of the current wave of technological innovation, nor to realise the benefits that it might bring:

- parts of government still see ESD as an optional extra, not as central to its business. Many senior managers still see it as 'about IT' rather than about transforming the service that citizens receive from government. This makes fundamental change difficult to achieve;

- some key services to businesses (rightly identified as demanding ESD earlier than citizens) are now online, but comparatively little effort has been made to improve outcomes for the citizen. According to the latest returns, some 32% of services are online, but this includes no transactional services and (with very rare exceptions, such as NHS Direct) few of government's key citizen services are available as yet;

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[22] *Government on the Web.* NAO. December 1999. p3.

[23] However, note that this list of 457 services is still believed to be incomplete.

[24] *Better Connected? A year 2000 snapshot of local authority websites.* SOCITM and MAPIT. Spring 2000. p3.

- government finds it almost impossible to act at the speed that would allow it to match the best of the private sector. That matters because it opens up a huge gap between what the consumer expects and what the government delivers;

- the scale and complexity of government, together with its multiple accountabilities mean that a coherent whole is difficult to achieve. Service providers have typically begun by working alone. The result is confusing to the user, and misses significant economies of scale and network benefits. There is currently a danger that the government's web presence will largely reflect its silos, rather than customer needs;

- government is not used to developing Internet services. Beginning with rapid prototype development rather than major procurement exercises is essential. So is the spirit of making rapid progress despite uncertainty, learning from experience and modifying the service as a result. There are current examples where uncertainties about technology, or identifiable future challenges (like the need for strong authentication) have blocked action altogether;

- government is used to working with large, established companies, but not with the small, newly formed dot.com start-ups. It needs new ways of working if it is to obtain the benefits of involving the new private sector companies that lead the way on the Internet; and

- there is as yet no coherent programme that will promote use of electronic services. There are many valuable initiatives under way, but it is not clear that together these will deliver the high use of ESD necessary to achieve the possible benefits.

5.10 Moving from this position to that outlined in the vision will be problematic.

The challenges that government faces are the subject of the next section.

Government must address a number of challenges if ESD is to be a success

5.11 If government is to achieve the vision of improved services more efficiently delivered, then it must take steps to overcome a number of barriers. Otherwise the nightmare scenario of high investment without improved services will not be avoided. We have grouped the concerns as follows:

- concerns from the citizen's perspective – such as equity, quality of service, access;

- concerns about the involvement of the private and voluntary sectors;

- concerns about government's capacity to deliver.

We take each of these in turn.

Citizens must want and be able to use electronic government services …

5.12 Government would achieve neither cost savings nor service improvements if people did not choose to use its electronic services. Additional electronic channels are simply added cost if existing physical channels are not scaled back. And whilst high quality electronic public services may be a huge step forward for government, people will not experience these improvements unless they use the electronic services.

5.13 Confidence in government's ability to deliver is very low. There is a real prospect of low service use unless specific measures are taken to generate use. Not only are there considerable divisions in levels of access to technology between social groups, but also the highest users of government services are

often less likely to possess digital technology and the skills to use it. There are several key obstacles to be addressed before people will choose to use government services. These are discussed more fully in the next chapter.

… private and voluntary sector service providers must play an integral part …

5.14 There may be concerns about the involvement of private and voluntary sector organisations in acting as delivery channels for government services. Some of these concerns are clearly valid: people will want choice about the use to which personal data is put, for example. Equally, there must be clear rules about what is a legitimate site for the delivery of government services, the use of advertising, how the government service is presented and so on. However, we do not believe that a general concern about the involvement of third parties is justified, if these other concerns are met.

5.15 What matters is what most effectively and efficiently delivers the government's objectives. On a case by case basis, government should choose between public, private and voluntary sector solutions on the basis of benefit to the client group and costs to the taxpayer. There is a clear benefit to the government if it can avoid some or all of the costs normally associated with its delivery networks. If non-governmental providers will compete to provide a channel between the citizen and the state for government services, then the taxpayer will benefit from lower costs, and the service user from higher quality, driven by competition.

5.16 ESD offers the opportunity for a new and potentially more beneficial relationship with third parties. Firstly, as the private and voluntary sectors act as intermediaries between the citizen and the state,

government can reduce expenditure on its delivery channels. Secondly, there will be real competition as soon as government allows access to its information, with the expected benefits to the citizen.

5.17 Government will not withdraw from certain functions, as has tended to be the case in privatisation and outsourcing arrangements. It will simply scale back physical delivery networks, whilst retaining ownership of its information assets and control of its services. It will retain responsibility for the key 'back office' functions for each service.

5.18 Finally, government must take steps to ensure that a marketplace does develop. If it does not, then government faces potential problems of slowed progress, with reduced benefits to the citizen and reduced cost savings. Problems would arise if, for example, third parties were unable to gain access to government information. Equally, a failure to regulate the emerging market adequately might mean that citizens did not trust third party providers, or lost confidence in government services. The government needs to take steps now to prevent either scenario from taking place. These issues are considered further in chapter 7.

… and government departments and agencies need the incentives and organisational structures to deliver

5.19 A further set of concerns relates to the government's ability to deliver. We have grouped concerns about government's capacity to deliver under two headings:

- technological concerns; and

- other concerns about government.

There are concerns about government's ability to manage IT projects ...

5.20 Government's poor record of managing major IT projects means that the need for essential changes to the back office presents a very real threat. The recent review of government IT projects[25] has set out key failures in the past, and produced detailed recommendations setting out what government must do to avoid comparable problems in future. We strongly endorse these recommendations. They need to be embedded in all the projects that are brought into being to implement ESD.

5.21 One important lesson is that government must not regard these projects as essentially technological. If ESD is seen as primarily an IT issue (as appears to be the case in some service providers), then there is a risk that these problems could re-emerge. The same is true if the task is thought to be the mechanistic achievement of the targets for availability, rather than the delivery of real benefits to the citizen.

5.22 The resolution of the technical and IT issues facing government is not the focus of this report, which instead concentrates on the wider challenges that government faces. Nonetheless, these issues are critical to the success of ESD, and government must ensure that it learns the lessons of the *Review of major IT projects* if it is to be successful.

... and to cope with the organisational challenge

5.23 Difficult though the technical challenges are, perhaps an even more important concern is the enormous organisational challenge for government. The scale of organisational change required may be beyond anything government has previously experienced. This issue is addressed in chapter 8.

5.24 This report considers specific problems in all of these areas, taking as its themes:

- reaching the citizen: the actions needed to promote use of ESD;

- establishing a mixed economy delivery market: the actions needed to create the market to implement the vision;

- organising to deliver: the actions needed inside government so that public sector organisations can make the changes needed to deliver.

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[25] *Review of major IT projects*. CITU. May 2000.

6. REACHING THE CITIZEN

Summary

None of the benefits of government ESD will be achieved unless all sections of the population use the services. The largest cost savings will come from migration to ESD by high users of government services – but these are often among the least able to access government electronically.

This chapter focuses on what government needs to do in order to generate use of its services:

- enabling people to use electronic channels – many either do not have access to the technology or do not have the skills to use it;

- putting services on channels that encourage use – at present, there is no clear strategy for deciding which services should be put on which channels;

- making government electronic services easy to find and use – many people are not aware of government services, cannot find them online, or find them difficult to use;

- making people want to use government electronic services – government needs to create trusted services that people want to use.

Key parts of the solution are:

- developing a strategy for prioritising channels;

- developing a strategy for the use of a variety of portals;

- generating trust in government services.

6.1 This chapter is about reaching the citizen – the challenges government must overcome and the actions it must take so that people choose to use its services electronically. First we set the scene by looking at the importance of reaching the citizen.

Reaching the citizen is crucial for delivering government services electronically

6.2 Electronic service delivery will only succeed if electronic services are widely used by the citizen. For reasons of equity, the government cannot allow disadvantaged groups to experience less good government services than advantaged ones. However, it is often the disadvantaged who have the lowest levels of access to electronic channels, and the most need of government services. Government must ensure that this group receives the benefits of ESD.

6.3 Moreover, the potential efficiency gains to government of ESD will only be achieved if take-up is high. Providing services through additional channels increases costs. Potential efficiency gains will be realised only if it is possible to some extent to rationalise other channels. That will require high uptake of electronic services.

6.4 However, government must overcome obstacles to reaching the citizen. In the following sections we consider the challenges that government faces in generating use of its online services. In summary, the key ones are:

- enabling people to *use* electronic channels – many either do not have access to the technology or do not have the skills to use it;

- putting services on *channels* that encourage use – at present, there is no clear strategy for deciding which services should be put on which channels;

- making government electronic services easy to *find* and *use* – many people are not aware of government services, cannot find them online, or find them difficult to use;

- making people *want* to use government electronic services – government needs to create and market trusted services that people want to use.

6.5 We consider these challenges in order, beginning with access.

People need the skills and equipment to access and use electronic delivery channels

6.6 Achieving universal access to digital channels and to the Internet in particular is clearly essential to achieving high use of electronic government services. The first part of this section sets out the actions already in hand to deliver universal access, which already form a coherent universal access strategy. The second part of the section sets out recommendations from the PIU team for building on this sound base.

6.7 The Prime Minister announced on 7 March 2000 the goal of achieving universal access to the Internet by 2005.[26] That target will be met through a wide range of measures to promote the use of a number of channels, including, for example, PC, digital TV and mobile devices. Government is already taking action to make it possible for people to use the Internet through all these routes.

6.8 There is a significant number of access initiatives already under way (including, for example, actions flowing from the *Closing*

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[26] Prime Minister's speech at the Knowledge 2000 Conference. 7 March 2000.

Table 6.1: Universal access in the knowledge economy spending review

Universal access was a key theme of the cross-cutting spending review of the knowledge economy, to which the PIU team contributed. Specific proposals to achieve access were given new funding. These are:

- piloting of initiatives for post offices to provide people with new opportunities to use the Internet (Internet learning and access points), as proposed by the PIU report *Counter Revolution: Modernising the Post Office Network;*[27]

- promotion of ICT skills through DfEE programmes: target of 75% proficiency at age 14, and further rise in the PC:pupil ratio; wiring up communities to build ICT skills; progressing Individual Learning Accounts to provide discounts on ICT training; launch of the University for Industry. A DTI programme to promote ICT skills in small- and medium-sized enterprises also funded;

- a new DTI team to plan work on building consumer trust and developing cross-border hallmarking;

- DfEE's online learning programme, to promote more social content on the web.

the Digital Divide[28] and *Achieving Universal Access*[29] reports). Moreover, the cross-cutting review of the knowledge economy, which was part of the 2000 Spending Review, was tasked with considering universal access (see table 6.1). The PIU team carrying out this study was therefore asked not to focus on this issue.

6.9 These new proposals and the additional funding form part of a wider package of measures designed to achieve the Government's target of universal access to the Internet by 2005. The UK online report, published in tandem with this one, sets out a full account of ongoing and planned government actions, showing a wide range of activity across central and local government, to promote use of the Internet through the full range of channels.

6.10 Building on the PIU report *e-commerce@its.best.uk*, the strategy set out in the UK online report tackles the key barriers to use of the Internet, which are:

- easy, affordable *access* to channels;

- the *skills* to use the technology;

- the *motivation* to use the Internet; and

- *trust* in it.

In each of these areas, government has put in place a range of measures, which are set out fully in the UK online report, and summarised in table 6.2.

6.11 This wide-ranging set of measures will promote access to the Internet across a range of channels, and it is critical that the strategy is driven forward effectively. In considering the actions necessary to deliver high use of government services, the PIU team has identified three areas within the strategy which deserve further attention:

- given the large number of initiatives under way, there is a need to ensure that they are well co-ordinated so that they deliver the target of universal access to the Internet by 2005;

[27] http://www.cabinet-office.gov.uk/innovation/2000/postoffice/postindex.htm

[28] *Closing the Digital Divide: ICT in Deprived Areas.* Policy Action Team 15, DTI. November 1999.

[29] *Achieving Universal Access.* Booz-Allen and Hamilton. March 2000.

Table 6.2: The access strategy

Access to channels – from home, from work, in the community

Access from home

- Government is working with industry to open up a full range of access channels, including digital TV and mobile communications.

- The Government is using tax incentives to encourage employers to provide PCs and Internet access for their employees at home.

- Government departments are looking closely at the costs and benefits of low cost PC leasing schemes for public sector employees.

- Government is providing low cost recycled computers for 100,000 low income families.

Access at work

- Government is actively promoting the benefits to employers of providing all employees with Internet access at work.

- All government departments are addressing the question of full Internet access for all public sector staff as part of their e-business strategies.

Access in the community

- Government is establishing a network of UK online centres in three phases, with around 700 open by March 2001.

- All public libraries will offer Internet access supported by trained staff by 2002.

- Government is investing in piloting new initiatives for post offices to help people to access and use the Internet.

Skills to use the technology – in the education system and through lifelong learning

In the education system

- The Government is investing to give 14 year olds a high standard of basic IT skills.

- In schools and further and higher education the Government will be investing in ICT infrastructure including almost £250 million on the National Grid for Learning in 2001–02; and there will be a substantial increase in future years.

- £230 million will be invested over several years to improve ICT skill levels among educators.

- Government will stimulate high-quality online educational content.

In lifelong learning

- £84 million will be invested in the development of the University for Industry (Ufi) in 2000–01. By 2002, Ufi will have 2.5 million users of its learndirect service per annum.

- The Government will offer free ICT taster courses to unemployed people.

- By September 2000, there will be 80% discounts for computer literacy training for those with Individual Learning Accounts.

Table 6.2: The access strategy – continued

- The New Opportunities Fund will fund high-quality lifelong learning content through UK online public libraries.

Motivation to use the Internet – by driving up the amount and quality of social content

- Government is emphasising the importance of strong plans for developing local content when assessing bids from local partnerships bidding to run UK online centres.

- Government is considering how best to work with creative industries to explore new ways to stimulate the development and availability of high-quality cultural content for a range of audiences.

Trust in the Internet

Government is promoting trust in the Internet by:

- working as part of the Internet Watch Foundation to protect children from unsuitable content on the Internet, and building on its work by agreeing with others and publicising a set of best practice self-protection tips for parents and children;

- endorsing Trust UK as a means for fostering consumer trust and confidence in Internet trading, publicising its work and developing with it a consumer trust standard for use by government departments transacting online;

- reducing the scope for online fraud, by working with the credit card industry to establish an address verification scheme applicable for online credit card transactions by the end of 2000. Government is also continuing to work to develop the t-scheme, as a means of ensuring privacy, security and authentication on the Internet;

- combating the use of the Internet for criminal activity by the introduction of the Regulation of Investigatory Powers Bill.

- digital television will be an important access channel, particularly for users of government services, and it is critical that government takes action to ensure that this is used as effectively as possible; and

- there is an identifiable group of people who will probably never use online services themselves. It is critical that measures are put in place to enable them to benefit from government ESD.

These three areas are the subjects of the remainder of this section.

Existing initiatives to promote access must be better co-ordinated

6.12 It is easy to identify the problems that must be overcome to achieve universal access. Technology must be made available and affordable, people must be able to acquire the skills to use it and must feel that the channels are relevant and trustworthy. More specific barriers affect certain groups disproportionately, e.g. absence of a home telephone connection (between 5% and 10% of households[30]); lack of a bank account (2.5 to 3.5 million people[31]); basic literacy

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[30] *Closing the Digital Divide: ICT in Deprived Areas.* Policy Action Team 15, Department for Trade and Industry (DTI). November 1999. Section 5 on web-site.

[31] *Access to Financial Services.* Report of Policy Action Team 14. HM Treasury. November 1999. p42.

problems (up to 20% of people[32]); and the need for people to be able to interact in their own first language.

6.13 Government must tackle this set of barriers. Research by Booz-Allen,[33] broadly in line with other projections, forecasts that with no government intervention, market growth will result in some 60% of the adult population using the Internet by 2003. This means that considerable intervention is required to meet the 2005 access target. The initiatives identified above cover some of the key questions of skills and access to technology. However, government does not yet have a coherent programme for systematically identifying and addressing each problem as it affects each citizen group.

6.14 As recommended in *E-commerce@its.best.uk*,[34] government is developing such a programme more explicitly, to ensure that it is addressing the challenges in full and as efficiently as possible to meet the 2005 target. The UK online report sets this out more fully. In central government, co-ordination should be led by one of the key players, who would be tasked with ensuring that a coherent programme exists to deliver the target and achieve economies of scale across government. The role of local government will also be important, and there would be merit in giving the Government Offices in the Regions an enhanced role to ensure that local and national initiatives join together effectively, and that local authorities achieve economies of scale by working together.

6.15 Co-ordination should be light touch to avoid additional bureaucracy, and focused on drawing together existing and planned programmes to form a coherent programme.

Conclusion 1: DfEE, working closely with the Office of the e-Envoy and other Departments, should take the lead in co-ordinating all community-based access initiatives to ensure they form a coherent programme, as part of the overall strategy to deliver universal access to the Internet by 2005. DfEE should appoint a senior official to lead this co-ordination function by autumn 2000, and have a responsible minister to oversee this work.

Conclusion 2: Government Offices in the Regions, working closely with DfEE, should take the lead in co-ordinating policies on access at the regional and local level and integrating local government policies with central departmental programmes. Directors of GORs should report on progress every six months to the responsible minister at DfEE, beginning March 2001.

The potential of digital TV to be a key channel needs to be fully exploited

6.16 Government has rightly identified digital TV as an important driver of access. Given the extensive penetration of television, DTV is likely to be a key digital channel in homes. Market research suggests that people are more comfortable and need less training to use a television than a PC to access information. This is in part reflected in the fact that a higher proportion of older people and lower income groups use DTV than use PC-based Internet. The total subscriber numbers are shown in figure 6.1.

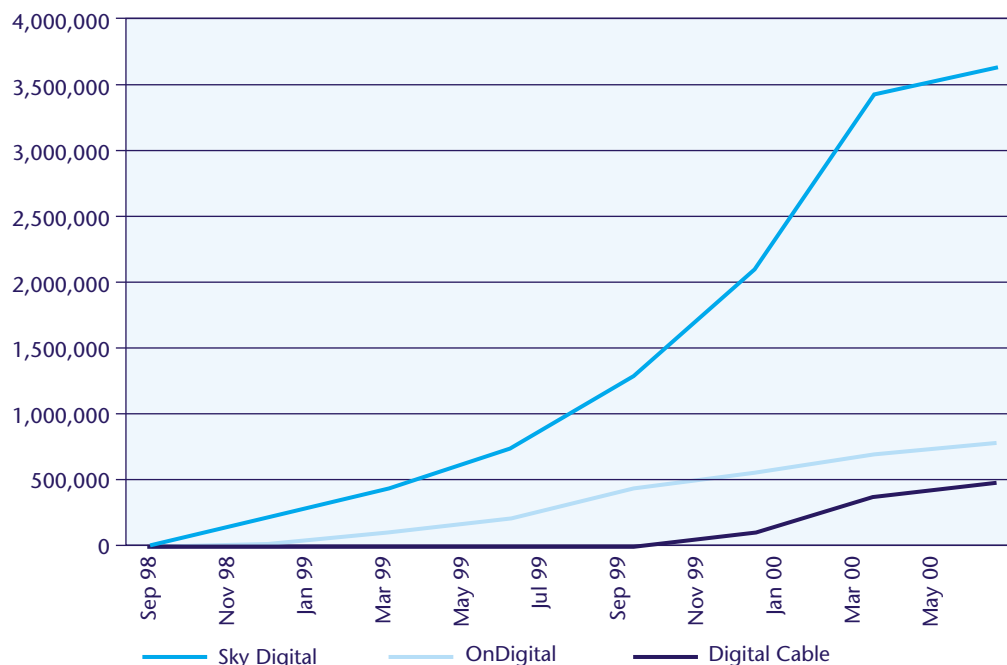[32] *Fresh Start: Basic Skills for Adults.* Report for the DfEE by Sir Claus Moser. March 2000.

[33] *Achieving Universal Access.* Booz-Allen and Hamilton. March 2000. p14.

[34] *E-commerce@its.best.uk* PIU. September 1999.

Figure 6.1: UK digital TV subscribers

6.17 However, the benefits of extensive DTV penetration in homes are only fully realised if DTV offers full Internet access. As Chris Smith said:

"Wouldn't it be wonderful if, after switchover, we could guarantee … that every home in the country with a television and a telephone could have access to the Internet?"

There are some encouraging signs that the market will deliver this as competition for subscribers increases. However, there are intricate competitive dynamics between the commercial players. Some DTV suppliers already offer Internet access through set-top boxes or have announced that they will do so. However, others do not and offer only a limited number of suppliers in a closed site.

6.18 Government has announced its plan to switch off the analogue television signal between 2006 and 2010. Analogue to digital switchover and its precise timing will clearly affect the evolution of the DTV market. Against this background, government has three key objectives:

- **Equity.** Government will need to ensure that current analogue viewers are not disadvantaged by switchover. Given its access objectives, government also wants to achieve full Internet access through DTV as soon as possible;

- **Competitive markets.** Government needs to ensure that there are no anti-competitive outcomes in the DTV market as a result of switchover;

- **Economic benefits.** Government should balance the potential economic benefits from the possible redeployment of released analogue spectrum against the costs of switchover.

6.19 Government is keen to promote digital TV for two reasons. First, it is likely to be an important method for achieving the goal of universal Internet access. Second, promotion of digital television will facilitate the eventual switchover from analogue to digital. Further analysis is needed on the degree to which it would be beneficial to link these two goals positively.

Conclusion 3: Government should work with the private sector to encourage widespread uptake of DTV and of Internet access via DTV as an important contributor to achieving the goal 5 of universal Internet access by 2005. This should be taken into account in the work to prepare for analogue switchover.

Innovative approaches are needed to ensure access for those who can't or choose not to use electronic channels themselves

6.20 Research suggests that there is an identifiable group of people who will probably never choose to interact with government across electronic channels. Research[35] suggests that in their attitudes to technology, citizens broadly divide into three groups:

- firstly, two-fifths of adults, who are **favourably inclined** to new technology, largely based on their general use and acceptance of it in their work, education or leisure;

- secondly, a further two-fifths could be **persuaded**, although about half of this group would require incentives or active support and encouragement; and

- finally, just under a fifth, who **generally avoid new methods** and are antagonistic towards them. The old and those in social groups D and E are disproportionately represented in this group.

6.21 It would be unacceptable if those groups who cannot or choose not to interact electronically were unable to obtain the benefits that government electronic services will bring. There are two ways for this group to benefit from ESD, without being required to use new technology themselves:

- firstly, some of the group will find telephone contact convenient, and this should be developed to enable access to government services;

- secondly, others will prefer to deal with intermediaries face to face, as they tend to do now, and there needs to be a means of enabling this group to benefit as well.

We take each of these in turn.

The telephone has a key role to play in supporting access…

6.22 The telephone remains a very popular channel with citizens for communicating with government (see figure 6.2). It can be used as a channel in its own right, as a stepping stone for citizens between face to face and full digital access, and as a support for other channels. It is likely to remain a key channel for the foreseeable future.

6.23 There is a strong case for establishing a cross-government approach to dealing with the citizen by telephone. There are already *call centre guidelines*, but more generally, a cross-government approach would ensure that call centres take account of citizens' preferences for joined-up services and that there is a mechanism for identifying economies of scale, where they can be achieved. For example, there is considerable evidence at present that many local authorities are proposing to establish their own call centres, where (as even major call centre providers recognise) economies of scale might flow from working together to establish common call centres for generic services.

6.24 The Netherlands, with its 'Public Counters 2000' project has established a single telephone number for all government services. The project provides a single Internet portal as a route to all services, one-stop shops where all services can be accessed

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[35] For example: *Electronic government: the view from the queue*. CITU. October 1998. p13.
The Henley Centre highlights similar groups in *E-government. Ready or Not*. July 2000.

Figure 6.2: Preferred channel for interacting with government

Which of the following means would you most like to use for interacting with the government? % agreeing
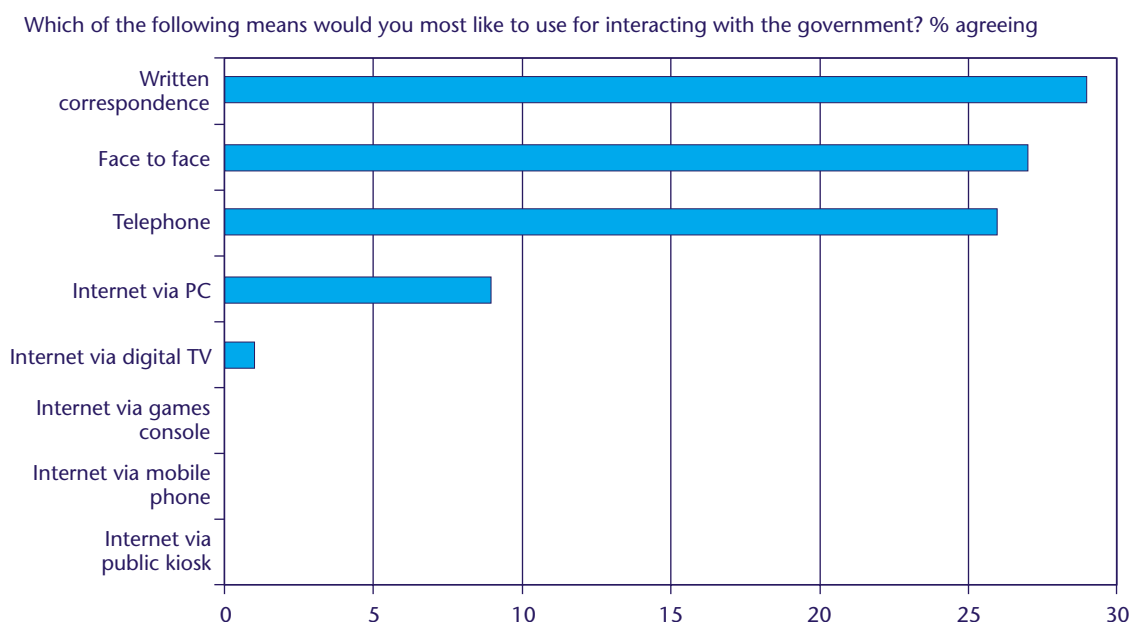
Source: The Henley Centre 2000

through human interface, and a single telephone number. Such an approach need not mean, of course, that there would be only one route for telephone access.

Conclusion 4: The Modernising Public Services Group in the Cabinet Office should develop a cross-government strategy for dealing with the citizen over the telephone by March 2001.

In developing business plans for online services, departments, agencies and local authorities should ensure that:

● **key online government services are supported by a web-enabled call centre facility where appropriate; and**

● **call centres are capable of dealing with a range of related enquiries, rather than being based on single 'silo' services.**

6.25 Similarly, there would be advantages in regionally helping local authorities to co-ordinate their investments in call centres to achieve economies of scale. This role would naturally fall to Government Regional Offices.

Conclusion 5: Government Offices in the Regions should support local government to realise economies of scale by helping to co-ordinate call centre investments. DETR should promote bids for joined-up call centres, for example between county and district councils, where this would lead to economies of scale.

… but other forms of mediated access need urgently to be piloted…

6.26 A further group may require face to face support in accessing government services. There is a significant role for facilitators, supported by digital technology, to help those who prefer direct human contact to gain the benefits of ESD. These may either be at fixed sites, or mobile.

● **Mediated Response – fixed.** As now, there will continue to be networks of physical outlets for government services, but in future staff in these locations will offer a wider range of services in one place, supported by electronic channels. People will benefit from ESD whilst continuing to deal with an official or

trusted intermediary. The recent PIU report on the Post Office network suggested that the Post Office could take on the role of trusted intermediary, and other networks will also be capable of doing this.

- **Mediated Response – mobile.** Internet-enabled laptops can be used to support an outreach service similar to the fixed one-stop shops. Trained local officials can provide support and access to government services for groups with access problems direct from their homes. The trained and trusted mediator will provide support in the same way as officials in fixed locations.

Newham is already providing local staff visiting homes with mobile telephones, which can be used to access local services through Internet-supported call sites.

Conclusion 6: Alongside the 'Government General Practitioner' pilots to be carried out following the PIU report on modernising the Post Office network, the Modernising Public Services group in the Cabinet Office should pilot mobile as well as fixed facilitators.

6.27 All of these actions are vital to provide access. However, it is clear that they are very much a first step towards generating use of government services. The next step is using channels that meet customer needs.

The channels through which services are delivered electronically must reflect customer preferences

6.28 The range of platforms for electronic service delivery is proliferating (PC, DTV, WAP-enabled mobile telephones, games consoles and kiosks may all have a place). There is general agreement, however, that the Internet will be pervasive, many

households will make use of DTV to access electronic services and mobile access will be of growing importance. But there is also a great deal of uncertainty.

6.29 For example, it is not clear whether open standards will be ubiquitous or whether closed, proprietary systems will continue to have a role; nor whether broadband services will be cheap enough for universal access. In the face of this uncertainty, government must develop an approach to selecting the platforms through which to deliver its services which is capable of coping with a range of possible technological outcomes.

6.30 Choice of channel must reflect the abilities and preferences of the users of a service. In this section we suggest how government should tackle the channels problem with a strategy for selecting platforms. The government's aim must be to choose channels to optimise use, and it must be clear how it is going to use key channels in support of its service delivery, including digital TV, the telephone and public access kiosks.

A strategy for selecting channels to deliver electronic government services needs to be developed

6.31 At present, although government is clear that it should deliver its services on platforms that people want to use, there are no clear and consistent selection criteria for choosing the most appropriate platforms. ESD from central departments has concentrated on delivery via the Internet to PCs. Some local authorities have developed services for different channels, including Digital TV and WAP telephones (see table 6.3 below).

Table 6.3: Uses of different channels by local authorities

Brighton is developing a community portal in partnership with Cable and Wireless and ntl, to deliver local services through interactive digital TV, WAP phones and Internet PCs.

The London Borough of **Newham** is intending to close down all existing physical outlets, replacing them with six one-stop shops or service centres, and a single call centre.

Hampshire County Council's libraries have developed a service for WAP-enabled mobile phones to enable users to find contact details and opening times of Hampshire libraries.

6.32 A balance needs to be found between achieving universal access for the citizen and allocating resources efficiently. We believe that this balance is best struck by making the Internet the backbone of government ESD. By this, we mean that Internet standards and protocols should underlie the delivery of services, and not that service delivery should focus on delivery to the PC – which should not be equated to the Internet. This is in line with stated existing policy but not always with current practice.

6.33 Internet delivery means that citizens will be able to access services through a variety of devices. Since trends in technology indicate that emerging platforms will base their content standards on those used on the Internet (such as HTML, and particularly XML), Internet technology can support delivery to many platforms, including for example DTV. Furthermore, kiosks and call centres should be web-enabled, using the systems that underlie delivery direct to the home; and fixed and mobile facilitators should be supported by the same systems. Even though content will be built using common Internet standards, there will still be issues in redesigning content for different devices.

6.34 There will be cases where content-rich services cannot now reasonably be delivered over narrow band Internet. This may be true of some services currently being developed for DTV, such as the education service pilots. In these cases, the government must still

adopt open standards, so that the service can in the future be delivered over other channels, such as broadband Internet.

6.35 Government should consider on a case by case basis whether a service should also be delivered on non-Internet based channels, using the prioritisation framework at Annex F. Content should then be constructed to be easily re-purposed, if necessary.

Conclusion 7: Government should adopt the Internet as the backbone of ESD and put services on it as the default option. Content should be constructed so that it can easily be re-purposed for different platforms.

The telephone should be used to support ESD

6.36 The telephone has two key functions in ESD. The first, of providing access for those unwilling to use new technology, is described in section 5.3.3 above. This is likely to be particularly important in the short term for services where currently customers are low users of technology. The second important function is as a support channel for fully automated ESD.

6.37 Government should recognise the popularity of the telephone as a means of access even amongst willing users of technology (see paragraph 5.20), but also the convenience and lower cost of fully automated ESD. It is likely that for some time

to come, people will use fully automated channels for simple queries, but will want some human help with more complicated interactions. It is therefore important that there should be continued investment in call centres, to provide access for those who will not use technology and support for web-based interaction.

6.38 However, when making investments in call centres, government needs to be clear about how over time it will encourage use of fully automated channels, and about how the call centres will support this. Service providers should not plan to use call centres as a prime delivery channel where full automation is possible and would be used by citizens. A fully automated service is the most efficient form of delivery, and investments should promote this.

6.39 Many private sector firms (such as the growing range of online banks) use a model in which call centres are available, but are used as secondary channels. An equivalent model for government is shown in figure 6.3 below:

6.40 As described above, there is also a need to co-ordinate investments in call centres, so that call centres support customer-focused services. The co-ordination function needs to be brought together with the decisions about investments.

Conclusion 8: Departments, agencies and local authorities should promote fully automated channels and online services as the primary means of ESD to citizens. Telephone access to web-enabled services should also be a key component of delivery plans, but should be used for access and support, rather than as the main channel, wherever possible.

The e-Envoy should support this approach in making funding recommendations.

Co-ordinated arrangements for investment in public access kiosks for ESD are needed

6.41 Public access kiosks have been proposed as a key channel for government services, but there are several problems with them in the

Figure 6.3: Channels for interacting with government
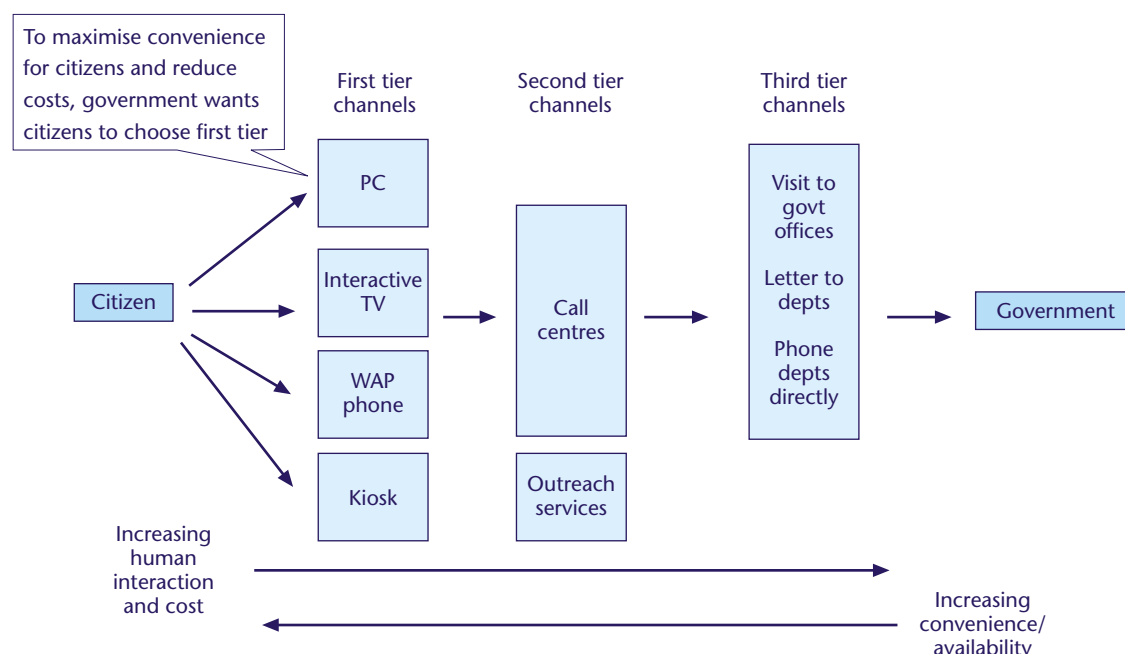
eyes of the citizen. Many people are reluctant to use them for transactional services, and have a fear of being overseen. However, research shows that for certain services, and in the right environment, kiosks have a place.

6.42 At present, there are many proposals for new kiosks to be provided in a variety of government networks and there is a danger that investments will be unco-ordinated. If kiosks are capable of providing only one producer's services and if each producer invests separately, then government will be losing major economies of scale and network benefits. There is therefore an extremely strong case for co-ordination, not only of public provision but of close working with private sector providers.

Conclusion 9: The Office of the e-Envoy and DfEE should work together to establish co-ordinated arrangements for investments in kiosk services. These should ensure that government achieves value for money in distributing its content widely, whilst presenting a coherent and joined-up face to the citizen.

Services should be easy to find and use

6.43 At present, there is a confusion of producer-focused web-sites, with difficult-to-discover addresses and no elements of common look and feel. Government needs to address these problems, so that whichever channel it uses to deliver its services, people will be able to locate and then know how to use them. The recommendations below amount to the need for government to

create a portal[36] strategy, beginning with the need to create a range of easy to find portals.

Government electronic services should be easy to find

6.44 User research has already highlighted difficulties in finding some government sites.[37] There are two key problems, which we consider in turn:

- firstly, entry points to government services currently reflect the silo structures of government, rather than the needs of citizens; and

- secondly, government is not making good use of non-governmental portals to distribute its content.

Sites should be made easier to find…

6.45 Few departments create web-site names from the user's point of view; instead addresses (URLs) reflect departmental structures. There is no site 'tax.gov.uk', for example. Web users often find web-sites by guessing the URL,[38] but users would need to know the department offering a service in order to do this. Furthermore, there is currently no URL system for government ESD. There is a range of domain names and no consistent naming convention (NHS Direct is at www.nhsdirect.nhs.uk but the Inland Revenue is www.inlandrevenue.gov.uk and the Department of Health www.doh.gov.uk). This contrasts with the approach used, for example, by the BBC where every site URL is of the form www.bbc.co.uk/theme where 'theme' is what the user is searching for.

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[36] The National Audit Office's *Government on the Web* report defined a portal as: ''any well-used gateway to the Internet … Portals typically provide large catalogues of other sites, powerful search engines for locating information, and ... other attractive Web services''. December 1999. p91.

[37] *Government on the Web.* National Audit Office (NAO). December 1999. p50.

[38] 22% find consumer commerce sites in search engines. More than 50% simply type in the brand name as the URL (for example, www.nike.com). BrandForward Inc.'s Cyberbranding 2000 Study. March 2000.

6.46 Given its complexity, effective search facilities are particularly important for government. Public sector organisations can also increase discoverability by registering multiple domain names, all of which can point to the same site. These points can be tackled as part of the brand strategy for government, which we discuss below.

… there should be a multiplicity of entry points to government services…

6.47 Government has already announced that it will create a personalisable portal site as an entry point for all government electronic services to the citizen.[39] This concept has tested well (see figure 6.4) but research shows that not everyone will choose to use the portal.[40] Citizens will not use it on every visit and may go directly to a service they know well.

6.48 Government has also recognised the need to provide services in different ways and to increase the discoverability of its services
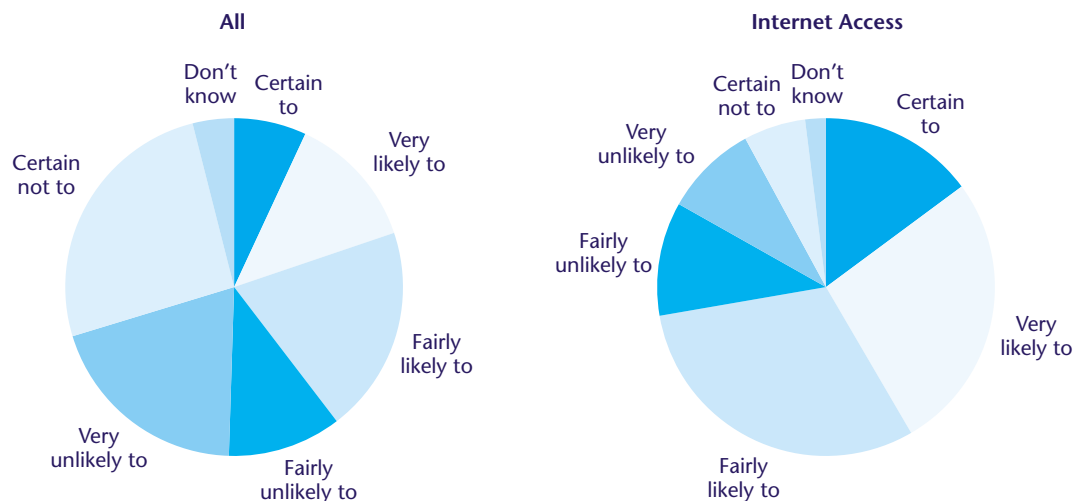
by offering a range of portals. For example, the NHS has a comprehensive portal to services in people's local areas at www.nhs.uk. The Local Government Association has launched a portal for local government and public sector news and information at www.local-government.net.

6.49 The key point is that sites should be built to serve customer needs, and this will almost certainly mean a diversity of entry points. Providing all services through the UK online portal has great merit in offering a rounded, personalised service to the individual. There is also a strong case for portal sites that provide a focused service for one group (such as students) by packaging government services for them. Services can be bundled in many ways, including by age, life event or interest and it is unlikely that one portal site can provide for all such groups. There may also be users who wish to continue to obtain specialist information from a departmental site as they do now.

6.50 As the vision makes clear, many such portal sites aimed at specific customer groups

Figure 6.4: Expected take-up of e-portal to government

Q   On balance, how likely or unlikely do you think you would be to use the Government Portal on the Internet?

All

Don't know
Certain to
Very likely to
Fairly likely to
Fairly unlikely to
Very unlikely to
Certain not to

Internet Access

Certain not to
Don't know
Very unlikely to
Certain to
Fairly unlikely to
Very likely to
Fairly likely to

Base: 2,147 GB adults, MORI Omnibus 4th – 8th May 2000

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[39] *E-government. A strategic framework for public services in the Information Age.* CITU. April 2000. p17.

[40] *What's in IT for the Citizen?* Research conducted for PIU. MORI. April 2000. p28. (see Annex D).

should be provided by the private and voluntary sectors in a competitive market. This will benefit service users, not only in the incentives it provides for improvement but also in the content of the sites. For example, a student site which brings public sector information from central government, local authorities and universities together in one place has considerable merit. However, it will be far more useful and more widely used if it combines this content with information and services from the private and voluntary sectors, concerned for example with the local housing market, vacation work and careers.

6.51 Figure 6.5 below shows schematically how a mixed economy of portals providing government services might look.

6.52 Government needs to take care to avoid crowding out the private and voluntary sectors. It should not, therefore, seek to create large numbers of joined-up portals of its own. However, there would be a powerful demonstrator effect from the creation of a small number of them to provide services to key customer groups. Government should

therefore invite bids from the public, private and voluntary sectors to act as 'product mangers' responsible for creating portal sites providing integrated services to these groups. These 'product managers' are introduced by recommendation 34 in section 7.3.2.

6.53 Except in unusual cases, all government services, local and national, and including local portals and the 'joined-up' portals described above, should be accessible through the UK online portal. At a minimum, this will mean that there is a link through to the appropriate service (which may be the correct way of dealing with local portal sites, for example). There may be some cases where this will not be sensible, and in these cases, the Office of the e-Envoy should provide a specific exemption.

Conclusion 10: All government services to the citizen should be available through the UK online portal, unless given specific exemption by the Office of the e-Envoy. However, access through multiple citizen-focused portals should be the norm.

Figure 6.5: A mixed economy of portals providing government services
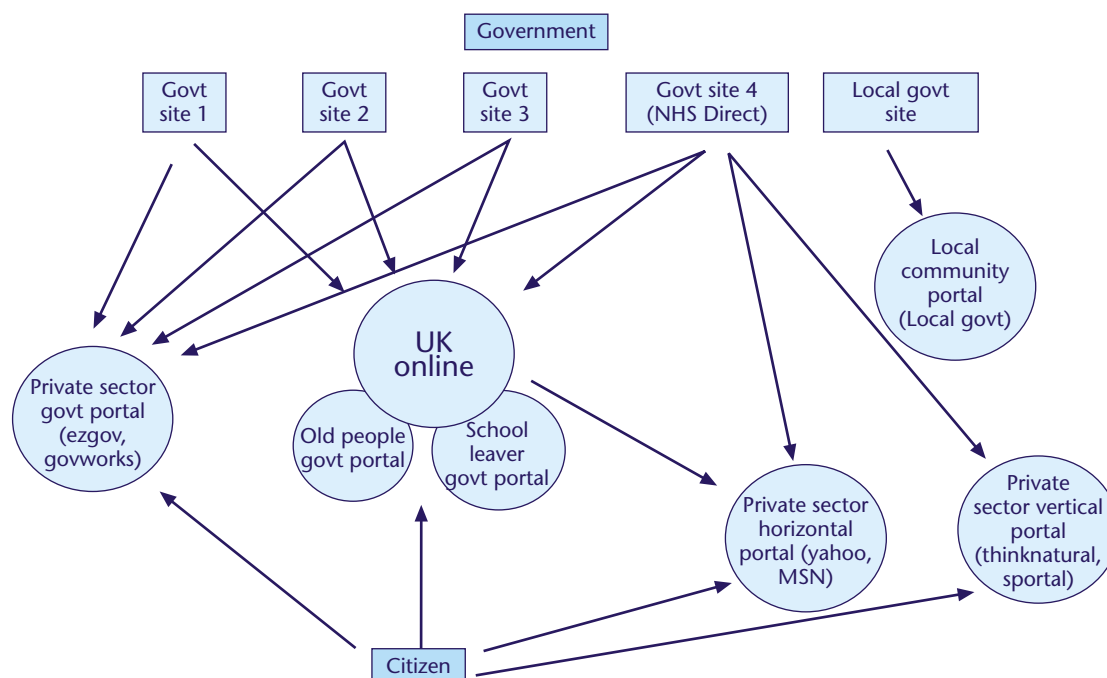
... and links with private sector portals should be fully exploited

6.54 When considering its portal strategy, government needs to consider the question of how to *distribute* its content electronically rather than simply what to do about a single preferred site. A key part of the question is how government can best use relationships with private sector sites. However, the private sector currently has very little guidance from government on how to enter portal relationships.

6.55 Government has not so far pursued potentially useful relationships with:

- **existing private sector horizontal and vertical portal sites**. Horizontal portal sites (like www.msn.com) attract a general Internet audience. Fifteen per cent of all web traffic passes through the top four portal sites.[41] The top UK portals have a reach of over 40% of the UK web audience.[42] Vertical portal sites attract a more specialised audience with a particular interest (for example, www.sportal.com caters to sports fans);

- **private sector firms which offer government services**. In the US firms such as www.govworks.com and www.ezgov.com provide an entry point to services such as parking fine payment. Such sites can also provide innovative bundles of private and public sector services.

6.56 An important means of making government ESD easy to find will be to establish relationships with high traffic private sector portal sites. The issues of building a market place for government services are discussed in detail in chapter 6.

Electronic government services should be easy to use

6.57 Government has no consistent style of presenting itself to the citizen and emerging web standards are not consistently applied. This contrasts sharply with the private sector, where firms now generally have strong central control over access to their sites. Private sector firms usually have the same interface 'look and feel' across their different sites and co-ordinated branding.

6.58 There are many government services which people use only occasionally. For example, parents apply for child benefit only at the birth of a child, motorists pay their road tax only annually. The fact that people do not use most services frequently makes it all the more important that sites are easy to use and navigate, and that citizens do not need to devote significant amounts of time to learning how to use them.[43]

6.59 The evidence shows that citizens simply will not continue to use a site if it is not easy to navigate,[44] and the more that sites comply with emerging Internet standards, the more straightforward they are to use. There is also a considerable body of work on what makes sites easy to use,[45] and the lessons of this should be applied across government. The web guidelines already begin to do this, but are not fully applied to all sites. They need enforcement, but also continuous updating to reflect Internet norms, and some extension to reinforce elements of common look and feel.

[41] *The portal race is over.* Forrester Research. 28 January 2000.

[42] U*K's Internet population increases by almost a fifth in six months.* MMXI Europe. 2 May 2000.

[43] A point highlighted by commentary on government sites. See, for example, *Web Watch.* The Observer. 9 July 2000.

[44] For example: *Usability On The Web Isn't A Luxury.* Information Week. 14 January 2000.

[45] For example, *Designing Web Usability: The Practice of Simplicity*. Jakob Nielsen. New Riders.1999.

6.60 Other international governments, including the Netherlands and Australia have developed standard components, which can be reused by different agencies in different services.[46] The costs of doing this are small, and the benefits significant. The area of standardisation need not be large, and the standards should reflect emerging Internet norms. There would be clear benefits to the user if the UK adopted a similar approach of reusing interface (particularly navigation) elements conforming to Internet norms.

6.61 The Office of the e-Envoy should establish standards for usability that will work across multiple electronic platforms. They should not aim to specify service design down to the 'pixel' level but should be flexible. They will need to:

- draw up and disseminate further standards for usability, navigation and transactions to generate elements of common look and feel;

- monitor government sites and work with providers to ensure usability; and

- work closely with the Central Local Information Age Partnership to ensure that standards are appropriate for both central and local government.

Conclusion 11: The Office of the e-Envoy should build on existing web guidelines to establish mandatory standards for the usability of government services, including navigation and transactions. These standards should be thoroughly tested with the target audience.

6.62 Important as it is, however, usability alone will not drive up service use, and it is to the question of what more government must do to generate use that we now turn.

Services that people want to use

6.63 People's awareness of and attitude to a service is a crucial factor in determining whether or not they will use it. In this section we make recommendations about making government services desirable in the following areas:

- generating confidence in government services; and

- building use.

Government needs to build confidence in the electronic delivery of its services

6.64 There are three elements to building confidence in government services. The first is confidence that data transmitted to government is *secure*: that eavesdroppers cannot read it and that no one else is capable of impersonating another to gain access to the data. Secondly, people need assurance of their *privacy*: that personal data will not be misused. Finally, government needs to make sure that its sites generate *trust*, for example by the way they present government, by their display practices and by their use of advertising. We take these points in order.

… by addressing concerns about security…

6.65 If the public is to use government services, then there must be genuinely secure communication between the citizen and government, even though use is made of public channels. The Office of the e-Envoy has developed a security framework, which sets out a staged approach so that security levels reflect the real risks associated with a service. The issues for providing a suitable mechanism for a service include not only the need for a secure channel but also transparency for the user and authentication that parties at both ends of the communication are who they purport to be.

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[46] Interviews with Netherlands Overheid team and Australian Office of Government Online. 15 May and 26 May 2000 respectively.

6.66 Transactional services being launched now, such as tax return filing, will employ simple password/PIN protection. This approach is widely used in online banking for transactions, but will not be adequate for services where strong authentication is needed. The PIU report *E-commerce@its.best.uk* recommended that the UK introduce a secure communications system known as a public key infrastructure (PKI). PKI provides a high level of cryptographic security for communication and allows a user to authorise a transaction using an electronic signature. The same mechanism is being developed across the world.

6.67 In the UK much effort has been expended in investigating the workability of PKI. This has provided confidence that an alliance of private companies can establish the infrastructure under a self-regulatory framework. This alliance is known as the 't-scheme' and is due to be launched late in 2000. Government rightly expects this alliance to be successful, and should continue to monitor progress to ensure that there is no need to activate a contingency plan.

… assuring people of their privacy…

6.68 Citizens' concerns do not cease when their personal information is safely held within a secure government database. People are increasingly expressing concern about the uses to which their personal data is put. With increasing attention focused on the market value of consumer behaviour data, and widespread concerns about how errors in stored personal information can affect such things as creditworthiness, many people are becoming cautious about supplying personal details, especially in electronic form (see figure 6.6 below).

6.69 People need assurance that their personal details will not be distributed to third parties, or used for purposes other than those for which they have explicitly given their permission. People will also be concerned if their browsing behaviour is monitored and recorded, if they are sent unsolicited material or if unnecessary personal information is collected. There is neither need nor desire for government to do these things.

Figure 6.6: Concerns about privacy

'I am worried about how my personal information travelling over new technologies might be used' (%)
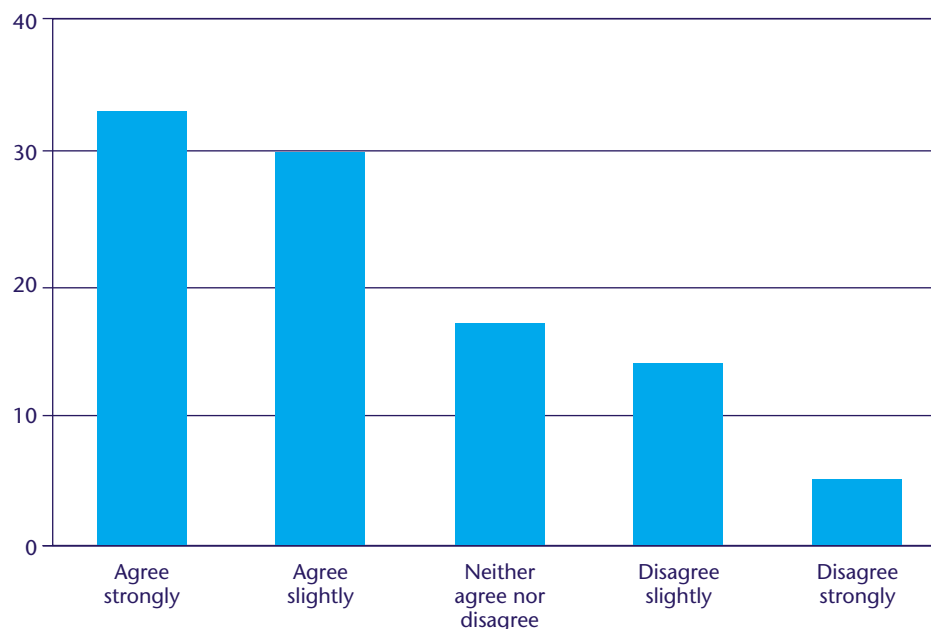
Source: Consumers' Association/IPSOS – RSL, May 1999

6.70 However, for e-government to operate in a coherent and efficient manner, there will need to be improved data sharing between government departments.[47] Although the benefits to taxpayers and service users of new and enhanced electronic services are obvious, increased data sharing does give rise to concerns about privacy in this country.

6.71 Sweden, Finland and the Netherlands have powerful advantages over the UK, not only in their integrated databases and population registers, but also in having a culture of openness in which citizens are accustomed to having much personal information in the public domain. Studies confirm that distributed, departmental data storage and processing will handicap UK e-government.

6.72 Informing the citizen about, and where appropriate obtaining consent for, sharing data within government is therefore vital. The Data Protection Act 1998 already protects citizens and its provisions should be publicised with clear explanations of how it applies to personal data obtained through electronic interaction with government. To this end, government should develop a Trust Charter which explains the protection provided by the Data Protection Act clearly and provides assurance in the key areas of citizen concern:

- notice of data collection;
- citizen choice about how the data is used;
- citizen access to their own data;
- security of the data.

6.73 This Charter will be a document, applied on all sites where the government delivers electronic services. It should also specify mechanisms for allowing easy and immediate access to data held about an authenticated individual, the system for efficiently and rapidly correcting incorrect data, and the procedure for handling complaints. This can be developed through the working group that has already been formed within the e-Envoy's office to develop guidelines for the collection, protection, processing and erasing of personal data.

Conclusion 12: The Office of the e-Envoy should develop a Trust Charter for government ESD in co-operation with the Data Protection Commissioner.

6.74 The case for increased sharing of data between government departments so that e-government can operate far more efficiently and effectively is very strong. It is a key enabler of the proactive joined-up service delivery described in the vision. However, as described above, it also raises concerns about civil liberties, and there is a need to consider this whole set of issues together in more detail. A separate PIU project reporting early in 2001 will examine privacy and data sharing issues and is the ideal vehicle for taking this analysis forward.

... and building trust through policies on branding

6.75 Partly because so few people possess a comprehensive understanding of the technology, security systems and potential risks to be able to make an entirely accurate judgement about the safety of supplying personal information through an electronic channel, a number of other factors influence feelings of trust. These include: *service branding*, which can influence perceptions of trustworthiness; and *advertising*, which can awaken concerns, particularly if products advertised are not appropriate or if government is thought to be endorsing a product. Several overseas governments have adopted an over-arching online government brand (see for example, www.servicecanada.gc.ca).

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[47] See, for example, *Privacy and Data-sharing, Information Age Champions Guidelines.*

6.76 Serious attention should be paid to managing the reputation and trustworthiness of e-government services and to the brand values that they convey. These values should include reliability, confidence, professionalism and a citizen-focus and should be the responsibility of the Office of the e-Envoy.

6.77 The production of content should feel professional and efficient and employ design metaphors appropriate to this. Department or agency branding must not conflict with the overall message. Local authorities whose branding is used to convey a sense of locality and community should not, however, be constrained to carry central government branding.

Conclusion 13: The Office of the e-Envoy should publish a code by December 2000 setting out standards for display practices appropriate for government services delivered electronically.

Take-up of electronic government services needs to be promoted

6.78 With all of these building blocks in place, the final requirement of achieving high use of government services is to generate a real preference for using the service online. There are two key components of this. The first is to provide clear incentives for use; the second is to market the services so that people are aware of them and know about the benefits that they can offer.

… through incentives for using government online services…

6.79 Citizens should have clear incentives to use ESD, but it is important to realise that these do not have to be financial in nature. The benefits of ESD, including convenience, time saved and faster service may all be compelling reasons for citizens to switch to ESD. There is already a small but growing number of people who want to interact electronically with government (see figure 6.7). Government needs to understand the benefits that this group perceives, and their changing preferences.

Figure 6.7: Preferences for interacting with government

49% of people are expected to access government electronically by 2003.

Preferred medium of access to government services in 3 years' time
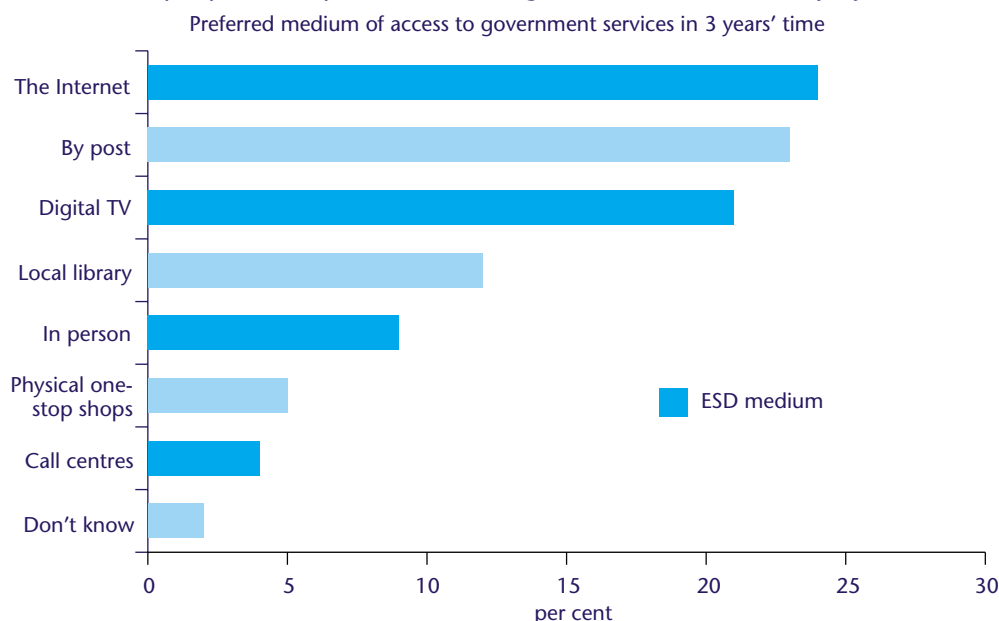
Source: KPMG Consulting, *Britain ready for online public services. The implementation of e-government*, 2000, p2. Sample: 2, 115

6.80 There are many factors affecting what citizens see as the main benefits of ESD and, indeed, whether they see any benefits at all. There are, however, some major widely recognised benefits as recent qualitative research shows (see table 6.3). ESD will be more convenient, faster, more personalised and empowering to the citizen.

Table 6.4: Recognised benefits of ESD

Elements by which services are judged	Recognised benefits (from qualitative research)
Open and empowering: The opportunity to have a say in, and more control over, the decision making process affecting you	"For some the Internet may be empowering… allowing them to take over processes that would previously have been handled by third parties…" *E-Government: Ready or not?* British Telecom. July 2000. "Being able to access information and services quickly without having to depend on an intermediary…is seen as an advantage." *What's in IT for the Citizen? Delivering Public Services through Electronic Channels.* Research conducted for PIU. MORI. April 2000.
Easier to use, including understand	"In getting information this is better than traditional methods." MORI report.
Affordable	"It will cut down on travel costs." MORI report. "As a driver of e-government, [citizens] identified the potential savings of money and time by using email." BT report.
Convenient: When and where you want	"It will put an end to the confines of normal switchboard or opening hours of public bodies." MORI report. "I could send the email in my own time…rather than running home…hoping that I might catch someone before they pack up." BT report.
Faster service	"Email's more instantaneous, whereas if you post something it's two or three days and you don't know if it's got there." MORI report. "I do like the idea that it saves time…time is so precious." BT report.

6.81 It is important that government understands the relative importance of these benefits to different citizen groups. The Inland Revenue has launched a £10 rebate as an incentive for citizens to submit their self-assessment tax returns online, but there is no research to back up whether this is an adequate amount or whether a rebate is the right type of incentive. Customer research into appropriate incentives should be part of the marketing strategy for ESD discussed below.

… and by developing and marketing a government online brand

6.82 Experience from the Australian MAXI project shows the positive effect marketing can have on service reach: usage figures were initially disappointing, but soon exceeded expectations with the introduction of a marketing campaign.[48] Marketing campaigns will be particularly important for high profile portal sites.

48 *Information Age Government: Benchmarking Electronic Service Delivery.* CITU. June 2000. p24.

6.83 It is not possible to identify all the things that government should do to market its services. However, it does need to develop a strategy which is focused on the needs of the citizens rather than those of the producer. This should be co-ordinated by the e-Envoy's office, working with the Government Information and Communications Service and should have a clear focus on generating use of government ESD.

6.84 This approach should provide a framework within which marketing activity can be more effective across government. Though there is no case for total uniformity of brand or marketing across the public sector, some common branding offers economies of scale for government marketing and greater certainties for citizens in knowing whether or not they are dealing with government. The strategy must not detract from the ability of individual service providers to promote their services to their clients in the most effective way, but should resolve current issues of brand confusion in a coherent way. As already identified, issues of brand and marketing also have an impact on levels of trust.

6.85 Key aspects of the marketing and brand strategies will be:

- *branding*, which starts with the UK online portal and extends to all other online services; has the flexibility to cover a wide range of services; works across different electronic platforms; and helps engender trust in government ESD;

- making citizens *aware* of electronic services as they become available;

- a cross media *campaign* paying attention to new media advertising;

- ensuring that every piece of government information carries a *web-site address* and actively encourages citizens to use the web-site;

- considering *rationalising* the web-site addresses (URLs) as discussed above.

Conclusion 14: The Office of the e-Envoy should develop a marketing and brand strategy for government ESD.

6.86 However, the role of service providers in driving up use of services is critical. A key message for departments, agencies and local authorities investing in ESD is that their investment must be driven by use of the service, since this is the key driver of benefits to the citizen. In their business and marketing plans departments and agencies need to be clear about the levels of use they are expecting and how they will go about achieving this. This must be backed by a staged funding process, as set out in the business planning annex to this report, and an expectation that investment will stop if services are not taken up. Service providers should be prepared to experiment, but with clear break points at which to look at what is working.

Conclusion 15: Each business case for an online service should include a clear projection for use of the service, and a clear strategy for achieving that level of use. Business plans should be based around a staged funding approach, with clear break points to review the success of the service and to make decisions about the direction of the service, whether to invest further and if so how this should be targeted.

In line with this approach, early moving departments have published targets for uptake.

7. CREATING A MIXED ECONOMY DELIVERY MARKET

Summary

A new market needs to be created in electronic government services which is open to the private and voluntary sectors, as well as existing public sector providers.

This new 'mixed economy' market will:

- promote competition in the supply of electronic government services, improving service quality and bringing down costs; and

- stimulate innovation, bringing new, joined-up and customer-focused services to the citizen.

For this market to thrive, policy changes are required to ensure:

- the role of the private and voluntary sectors is championed effectively within government and barriers to their involvement removed;

- government policy on advertising and other issues of probity is clarified; and

- open, competitive markets are promoted, and mechanisms are put in place to ensure innovative ideas for the electronic delivery of government services by the private and voluntary sectors are not crowded out by the public sector.

7.1 Government will inevitably have a major role in the delivery of its own services. At the same time, the private sector will have an important role in helping to build government infrastructure to deliver these services. However, as the vision describes, digital technology makes possible a new mixed economy of government service delivery. We begin with a discussion of why this is important.

A mixed economy market in the electronic delivery of government services is crucial

7.2 Earlier chapters have described a mixed economy marketplace in which government, private sector and voluntary sector information and services are bundled together to maximise value to the consumer. In the Internet style, this is the emerging G2C (Government to Citizen) market.

7.3 The information 'raw material' in this marketplace comes in two forms:

- information which is **published** – which can be repackaged/resold and bundled. This information is *not specific to an individual* citizen, such as market surveys, generic advice and so on, published by the public sector. The market is reasonably well developed. It has been the subject of recent work in the Cross-cutting Spending Review of the Knowledge Economy (SR2000) with which the PIU worked closely; and

- services which involve **interactions** and **transactions**, such as an application for a licence or the payment of fines or taxes. This type of information *is specific to the individual concerned*. An example of private sector involvement in delivering these services is the Government's Change of Address project.

7.4 Both these types of information will be involved in the new electronic government services marketplace. This vision of a mixed economy delivery market offers significant benefits to the consumer. These arise for two key reasons:

- it will create competition to drive up quality for the citizen and reduce costs; and

- new value-added intermediaries will provide more customer-focused services.

Competition between public, private and voluntary sector providers will drive up quality…

7.5 The Internet changes the economics of service delivery. It means that government can deliver services more cheaply itself and the barriers to entry for potential new entrants are reduced. As a result we should see private and voluntary sector entities offering services which were previously largely the preserve of the public sector.

7.6 For example, www.upmystreet.com takes aggregated government information and repackages it so that, using a postcode identifier, you can find information, for example on local schools and hospitals. Companies like www.ihavemoved.com inform various bodies, soon to include parts of government, when an individual has changed address. In both cases, a single interaction with government is required, whereas before the advent of the Internet, various interactions were required.

7.7 The competition already emerging in this marketplace is delivering benefits to the consumer because it provides incentives for innovation, service improvements and cost reductions. The further expansion of this market would extend these benefits more widely across government services. One critical outcome is that services can be much more tailored to individual needs. New private sector intermediaries are beginning to appear, bundling sets of services in novel ways, to make life easier for the citizen.

…and offer new customer-focused services to citizens

7.8 This new market is furthest developed in the US, with new companies such as www.ezgov.com, www.govworks.com, www.netgov.com and www.nicusa.com. These have slightly different business models, but all are innovating as intermediaries between government and the citizen and business. These companies are already planning to move across the Atlantic, seeing the UK as a good starting point for tackling the European market. Meanwhile in the UK the sector is just taking off. Recent launches in the UK include www.impower.co.uk and www.yougov.com.

7.9 These companies are starting to bundle information and services provided by different government departments and agencies, and combine this with private sector services. Such combinations are better able to meet the needs of citizens, partly because they cut across traditional departmental boundaries. It is also possible to envisage the bundling of public, private and voluntary sector content (such as charities for the elderly providing pension advice and payment covering both state and private pensions). It also seems likely that aggregators or wholesalers of information will emerge to bundle information from different sources and then resell it on to third parties.

7.10 As Box 7.1 demonstrates, the voluntary, as well as the private sector will play a role in this emerging market.

7.11 Although this emerging market offers opportunities for private and voluntary sectors, there are challenges to ensuring its successful development.

A clear framework for this new market needs to be put in place

7.12 The challenge that lies ahead is to create a successful and competitive marketplace which delivers both innovation and private investment in customer service, but at the same time meets public policy objectives. However, creating such a marketplace will not be a simple process.

7.13 Although it is evolving rapidly, this market is still at a very early stage of development. At present, government is in a complex position: potentially it is a buyer, a supplier, a policy maker, a regulator and a partner. Clarity of these differing roles is paramount, particularly as the marketplace

Box 7.1: The voluntary sector and electronic service delivery

There are over 180,000 registered charities in England and Wales. There are many more 'non-governmental organisations' which are not registered but which are active in similar ways, particularly on the Internet. Their number and the scope of their activities continue to rise. NGOs support the growth of the market economy by fostering social stability and trust and promote democracy by encouraging and enabling citizen engagement. Their strong advocacy role has historically been the source of many important social and economic policies.

During the last few decades NGOs and charities have also begun to participate explicitly in the delivery of government services. Many now have service contracts, for instance, with local authorities to deliver home and special health care services; others work on a less formal basis with police forces, prisons and hospitals; and many are key participants in multi-million pound regeneration partnerships.

Like the private commercial sector, the voluntary sector is well placed to participate in, and support, the development of electronic government service delivery. In areas like social security, for example, voluntary agencies are adept at articulating the conditions for entitlement in plain English and in a user-friendly format. Their function of identifying and promoting special groups, and the trust that many of the longer-standing charities and voluntary bodies have with the public, means that NGOs can help government target its services in an increasingly fragmented marketplace. NGOs, being non-profit making organisations, may be able to take the opportunity to do this rather more quickly than the private sector, for whom the commercial incentives to serve special needs may be weak or unclear. Already there are examples such as taxaid.co.uk, which provides tax advice and a tax ready reckoner aimed at those who lack confidence in dealing directly with the Inland Revenue, and adviceguide.org.uk, run by the National Association of Citizens Advice Bureaux, which provides advice across a wide range of consumer, legal and welfare issues.

The voluntary sector will play an important part in filling that space between the state and the citizen and supporting the government's aim of universal access and personalisation of services.

for service delivery develops. Government faces three key challenges if the marketplace is to function as it should:

- **championing.** Ensuring that departments, agencies and Local Authorities make their data and systems (i.e. the key raw materials) open to third parties;

- **clarifying policy.** So that it deals adequately with issues like advertising and trust;

- **providing the framework.** Providing 'rules of the game' for the marketplace to ensure competition and that outcomes are efficient and equitable.

The interaction of these issues is shown schematically in figure 7.1.

7.14 Where the champion may be involved in the provision of services, there is a need for a clear separation between the roles of champion and regulator to avoid conflicts of interest. In the following sections we consider the three challenges in turn.

The role of the private and voluntary sectors needs to be championed within government

7.15 The public sector organisations that are the key suppliers of 'information raw materials' may not face market pressure to make best use of these intangible assets. There is therefore a need to ensure that where private and voluntary sector organisations experience difficulties in interacting with government, they have a champion within government who is able to give them guidance, as well as encourage government bodies to provide data and services promptly and in common formats. A champion could:

- encourage government bodies to establish widely disseminated information assets databases;

- agree any exclusions of information or services from the marketplace – presuming inclusion in the marketplace unless there is a public policy case for an exemption; and

Figure 7.1: Framework for the new marketplace
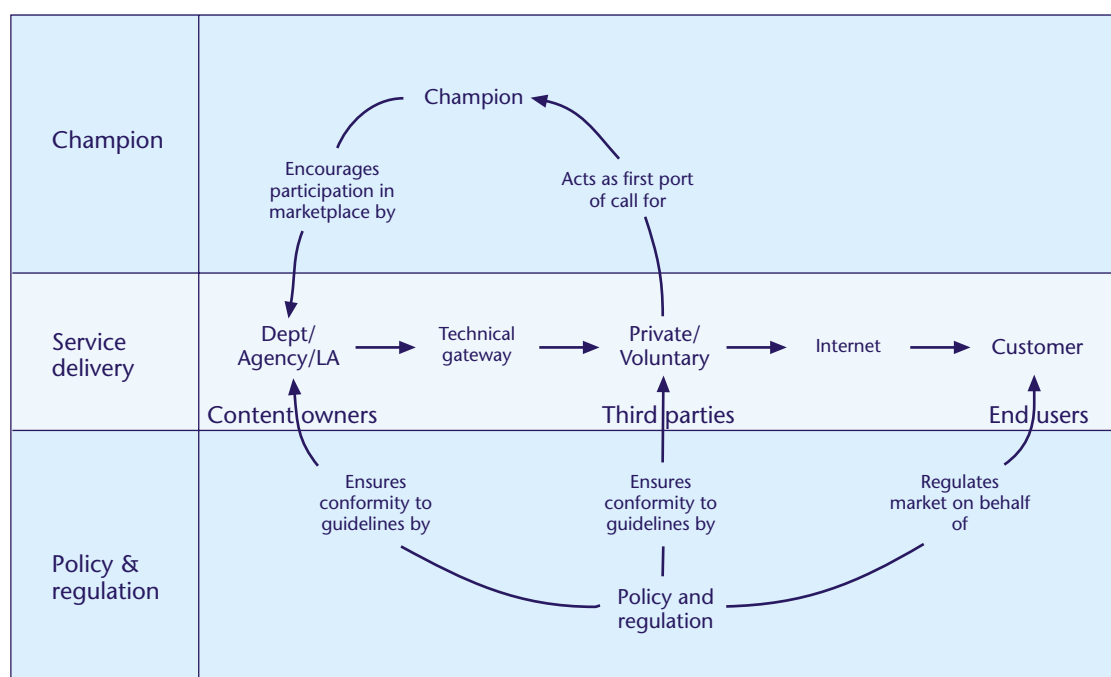
- create a league table of service performance by departments, agencies and local authorities.

Box 7.2 sets out an example of the problems that companies have experienced in the absence of a champion.

Box 7.2: Upmystreet's problems

www.upmystreet.com collates, re-cuts and presents disparate government data based on postcodes. In the past, different parts of government struggled to deal effectively with upmystreet, who have faced threats of legal action for breach of copyright. In addition, the price that upmystreet has been charged for information has varied from free to thousands of pounds, but not on the basis of a consistent and coherent pricing strategy.

7.16 As discussed, much of the government information market is relatively immature. As it develops, so should policy and regulation towards it. Government should adopt an *evolutionary approach* to match the development of the market.

7.17 In terms of championing, we envisage different champions for different parts of the market in the short term:

- **published information.** The Information Review recommended that HMSO should champion the development of new uses for non-personal government information assets. We support this recommendation;

- **interactive service information.** The natural home for this role is the Office of the e-Envoy. With that office's overview of government electronic service delivery, it is best placed to play the role of champion.

7.18 In the longer term, the role of champion as a cajoler of government may become redundant. Although there will still need to be a single point of contact and first

port of call for third parties with grievances, the role of champion may be reduced. At the same time the separation of regulatory roles between published information and interactions and transactions may disappear, as third parties bundle the two together.

Conclusion 16: The e-Envoy's office should champion the development of interaction and transaction markets. In particular, they should press public sector bodies to become 'open for business' and support private and voluntary sector organisations who seek to deliver electronic government services but experience difficulties. The e-Envoy and HM Treasury should review this role in 2003.

Clear government policies are needed for advertising and other issues of policy

7.19 Clarity on relations with non-public sector bodies is critical as the government electronic information and services market develops. There are significant new revenue opportunities for public sector bodies in the mixed economy market, and in general there is no reason to forego them. However, for the public sector, there is a tension between income and cost recovery on the one hand, and trust and probity on the other.

7.20 In the next sections we consider the specific issues around advertising and sponsorship and the more general issues of probity.

Advertising

7.21 Advertising will increasingly become a potential source of revenue on high use government sites. For example, the old government portal www.open.gov.uk received 14 million hits per week on average

in the first half of 2000. In the private sector this could generate advertising income of around £17 million p.a.[49] By not accepting advertising government forgoes potential revenue, but maintains its reputation for impartiality and probity. As these opportunities proliferate it is clearly important that a consistent approach is adopted.

7.22 Public sector site owners are free to advertise, providing that certain conditions are met on the probity of material and the consistency with wider policy objectives. Site owners should ensure that advertisers' branding does not detract from the effectiveness of their own or wider government branding and the site should avoid any implication of endorsement of products or services. As identified in chapter 6, one key issue is the impact of advertising on trust in government web-based information and services. Public reaction will need to be closely monitored as markets develop. Similar issues also apply to any sponsorship on public sector web-sites. There is general guidance given in the Cabinet Office *Guidance for Departments on Sponsorship of Government Activities*.[50] In addition, the New Media Team within the Office of the e-Envoy have recently issued guidance on web advertising and sponsorship in the updated Web Guidelines.

7.23 Advertising revenues have the advantage that they provide funding with which to improve public services without constraining the development of the mixed economy, unlike charging third parties commercial rates for government information or services. Over time, it is likely that advertising will become an increasingly important way of funding the provision of information and services and developing web-sites. Guidelines will need to be revised as the market develops.

7.24 There will also be cases where the government wishes to advertise externally. To optimise traffic to its own sites government will therefore need a co-ordinated marketing policy (Conclusion 14). In addition, government should place its own advertising only in locations that will maintain and enhance the public sector's reputation.

Conclusion 17: The Office of the e-Envoy should contract ongoing research about advertising on public sector web-sites and monitor income and appropriateness. This should be underway before the end of 2000.

Other probity issues

7.25 As advertising, content and service links are mixed and matched on public, private and voluntary sector sites it will become increasingly difficult to manage the public sector's image and reputation. Of particular concern is how data relating to individuals is handled by third parties. Intermediaries handling such data will need to meet certain minimum security and probity standards.

7.26 Policy should be put in place that deals with these issues without stifling the market. Unnecessarily high standards can act as a barrier to entry, protecting incumbent operators. As yet, there are few examples of problems. In different ways, the Change of Address project and tax self-assessment will use third party providers, and in these and other emerging examples, there is a need for providers to keep these issues under review, to ensure that standards of probity are being observed.

7.27 As well as issues over trustworthiness of third parties in handling data, there are more general issues surrounding probity. Internationally, many government bodies, such as Washington State, have developed

[49]   Based on £23 per 1,000 hits; roughly the current UK market rate.

[50]   http://www.gics.gov.uk/handbook/guidance/sponsorship.htm

and published clear policies about what is allowable on their sites. In the UK, public sector sites should also have a consistent policy along these lines about what is and is not allowable.

A competitive market in electronic government services should be promoted…

7.28 The new government information market will need a framework that ensures that government is open for business and avoids crowding out other providers, and that the market is efficient (and in particular competitive) and equitable.

- **Efficiency.** In terms of efficiency the best outcome is a competitive market. However, the issues of ensuring the security and privacy of citizen-specific information are complex, as are those concerning the monopolistic provision of government information and its pricing. The economic nature of information and the position of government as a collator and channel for it suggests that there is a strong role for pro-competitive regulation of this emerging market. Regulation will need to ensure that pricing criteria for the release of government information to the market are established and adhered to, ensuring the most competitive outcomes. The presumption will be in favour of open access for all organisations unless a public policy case can be made for a restricted market.

- **Equity.** As well as efficient outcomes government also has equity goals. Equity issues such as universal access and avoiding the 'digital divide' for government services are discussed in previous chapters. Just as OFTEL needs to consider such issues in its deliberations over the telecoms market, so any new regulation in this marketplace must also be conditioned by these considerations.

7.29 There should be a light regulatory regime to achieve these outcomes and to avoid crowding out the private and voluntary sectors.

… but regulated lightly …

7.30 At this point in its evolution, the market needs a light regulatory touch to stimulate development. To ensure competitiveness the key questions that need to be addressed are the pricing of and access to government information assets. The Spending Review team looked at these issues for published information. Regulation of pricing and access for interactive services and citizen-specific information is less developed.

- **Published information.** Working with PIU, the cross-cutting spending review on the knowledge economy made several recommendations relating to 'published' information. In summary, HMSO is responsible for ensuring access to these intangible assets through a new class licence which will apply to most Crown Copyright material. Marginal cost pricing (i.e. often close to zero) will apply to digitised raw data produced by departments and agencies (other than trading funds). HMSO will therefore lose its current licensing revenue. Delegations of authority will be rescinded to centralise a simplified licensing regime via HMSO. HMSO and HMT will work with the trading funds to improve their pricing and dissemination policies, but within the overall rates of return set out in Treasury guidance. All government bodies, including those to whom the rule for raw data applies, should still be free to develop value-added services charged at market prices. Regulation of competition in this sector will continue to lie with the Office of Fair Trading.

These recommendations should be implemented as quickly as possible. This will require strengthening existing functions within HMSO, who then need to complete and make available the Information Asset Register as a priority. It needs to create mechanisms for monitoring the full and proper use of information assets. Finally, HMSO needs to develop enforcement regimes such as league tables.

- **Interactive services.** The market for interactive government services is barely developed. However, it is likely to evolve quickly. Indeed, the first deals are being struck now by government with third parties in this area (e.g. tax self-assessment and change of address services). These may set precedents for the future. In the short term the existing rules for procurement (the responsibility of the Office of Government Commerce, OGC) and rates of return for government activity (HMT responsibility) should suffice. However, a more comprehensive policy and regulatory framework will need to be developed in the near future.

Conclusion 18: Early examples of the provision of government services by third parties (such as tax self-assessment and the change of address service) should be allowed to develop. HMT and Office of the e-Envoy should adopt a light touch, but monitor them to ensure that equitable and efficient outcomes are achieved.

Conclusion 19: HMT should chair a working party of the relevant authorities (OFT, DTI, HMT, HMSO, e-Envoy) to agree the longer-term framework for the interactive government information market.

7.31 In the short term then, the championing, policy towards and regulation of this market can be summarised as set out in figure 7.2.

7.32 Whilst these actions should ensure an appropriate framework for the market, further steps need to be taken to ensure that government does not inadvertently stifle the private sector through its own actions.

Figure 7.2: Summary of roles

		Publish		Interact-Transact	
		Function	**Institution**	**Function**	**Institution**
Champion		Third party champion	HMSO	Third party champion	e-Envoy
		Asset database	HMSO	Asset Database	e-Envoy
		Exemptions	HMSO	Exemptions	e-Envoy
		Service performance	HMSO	Service performance	e-Envoy
		Function	**Institution**	**Function**	**Institution**
Policy		Advertising, branding, ethics	e-Envoy and DPR	Advertising, Branding, Ethics	e-Envoy and DPR
		Function	**Institution**	**Function**	**Institution**
Regulation		Entry/access criteria	HMSO	Entry/access criteria	HMT brief
		Pricing	HMT	Pricing	HMT brief
		Competition	OFT	Competition	OFT

… and carefully overseen to ensure that innovative private and voluntary sector services are not crowded out

7.33 There is a multiplicity of services that the public sector can and should deliver electronically. The government faces stern organisational challenges in doing this, as we discuss in subsequent chapters. However, there are many areas where the private and voluntary sectors might deliver services in whole or in part. Because this is a rapidly changing market and because it is not clear how it will evolve, government faces a dilemma. If it acts now it may crowd out private sector entrants. If it does not act now citizens may be left with negligible or poor electronic services.

7.34 In many cases, there will be strong reasons why government should act now, working in general with partners from outside government. In the first place, it will secure delivery of the government's objectives. Secondly, it will act as a lever for government to sort out its back office fully, which again it will generally do with partners from the private sector. Finally, it is only by trying to deliver service electronically that government will discover and work through all the problems that it faces. However, there is no reason why government should do these things in isolation, or by using a traditional procurement model. The change of address service is an example of using private sector providers in innovative ways (in competition and without payment) to secure delivery of a service.

7.35 Government needs to optimise the role of the private and voluntary sectors now and in the future.

- **Now:** This requires careful appraisal of whether, and if so, how government intervenes on a case by case basis. Opportunities for partnerships with the private and voluntary sectors need fully to be exploited.

- **In the future:** This requires reviewing whether and when to transfer service provision to the private and/or voluntary sectors if these sectors are not already involved.

7.36 The potential for crowding out depends on the nature of the service. The three examples below show how this can differ.

- **Content-rich services** such as health advice and education are problematic. For example, the creation of NHS Direct Online – one of the most popular government web-sites – may have dissuaded some private sector health portals from entering or affected the business plans of existing UK players. In this case, there are good reasons – to do with independent advice – for creating a public sector presence. However, in other circumstances one option might be to contract out such delivery with some form of public sector quality approval (a quality mark) instead of building from scratch, or to work in partnership with the private and voluntary sectors.

- **Bundling government transactions.** There is an increasing number of examples from the UK and abroad of the public sector delivering a service to which the private sector adds value by bundling it with other services or content. For example, filling in a tax form can be bundled with tax advice or applying for a fishing licence with angling content. Government provides the core service, but not the value-added content.

● **Low revenue services.** Compared to the examples above there may be other areas where the revenue model, and hence the incentive for private sector involvement, is much less clear. Arguably, social security benefits might be difficult to deliver electronically on a stand-alone commercial basis without some form of government payment to providers. However, the voluntary sector might have a key role to play in partnership with government. This could help to build trust and promote take-up.

7.37 There is clearly potential for government crowding out of private and voluntary sector activity in this area. Action needs to be taken to ensure this effect is minimised. The prioritisation framework and business planning annex (annex F) to this report provides one mechanism towards this end.

Conclusion 20: All future e-strategy and business planning submissions should explicitly and rigorously assess the rationale for government intervention and funding, and demonstrate that private and voluntary sector involvement in publicly funded projects has been optimised. This needs to be monitored by the e-Envoy's Office and HMT as part of the budget allocation process.

7.38 The dynamic nature of the marketplace means that there is significant uncertainty of outcome. The public sector may start by providing a wider range of electronic services now, either on its own or in partnership with the private and voluntary sectors. In some instances, it is only after the event that it will be clear whether or not service delivery requires a public, private or voluntary sector solution. So, by 2005 say, one could envisage a variety of outcomes for different services, as shown in figure 7.3.

7.39 Where there are strong third party offerings in the marketplace, government should consider its role and the possibility of exiting. Where neither the public nor the private sector has delivered a strong service and there is demand, then the public sector should analyse why and invest, if this improves social welfare. Difficult decisions arise where there is a strong public sector offering and a weak private sector service. This could either be because there is no role for the private sector or because of crowding out. By the time these services are reasonably established there should be a review of the continued role of the public sector.

Conclusion 21: The Office of the e-Envoy and HMT should carry out a review of all public sector electronic offerings in 2005 to determine whether continued public sector involvement is necessary, and if so, what form it should take.

Figure 7.3: Market outcomes 2005: government action

	Strong public sector offering	Limited public sector offering
Limited third party offering	Maintain current investment. Review rationale for government intervention and funding and seriousness of crowding out.	Analyse reason for limited third party offering. Invest to develop strong public service if necessary.
Strong third Party offering	Review public sector role and exit options.	Review public sector role and exit options.

8 ORGANISING GOVERNMENT TO DELIVER

Summary

Perhaps the greatest challenge the government faces in delivering services electronically is in developing the organisational capability to do so. Like other governments and traditional private sector companies, UK government lacks many of the skills, structures and systems to move easily from traditional to electronic service delivery. Unlike the private sector, government faces no immediate competitive threat to drive the fundamental changes that will bring the potential benefits to the citizen. The fundamental organisational challenges that government faces are:

- motivating change in service delivery;

- co-ordinating these changes; and

- transforming its delivery structures to fit new patterns of service use.

Key themes in the recommendations include:

- greater strategic direction for government as a whole: together the recommendations amount to a requirement for a new e-Envoy group to draw all of government's ESD activity into a coherent whole;

- balancing this requirement with the need for more innovative processes throughout government, including an 'incubator' to develop new ideas into workable services rapidly;

- strong organisational and individual incentives and support for departments and agencies, given their key role, particularly in securing joined-up delivery;

- developing similar incentive and support structures for local government; and

- facing up to the need for very large-scale changes to government.

8.1 This chapter considers the organisational barriers to ESD within government and the things that government needs to change in order successfully to deliver services electronically and to realise the benefits of doing so. 'Organisation' in this context includes all the internal functions of government. First we look at why these questions are important.

Putting the right incentives and organisational structures in place is crucial to ESD

8.2 The organisational challenges facing the UK government are very similar to those that face other large organisations, in the public or private sector. Like those organisations, government lacks many of the skills, structures and systems to move easily from traditional to electronic service delivery. However, government's scale and complexity exacerbate the problems. The size of client groups; the volume of transactions; the complexity and number of 'back office'

systems; and the numbers of people and organisations involved in service delivery all far exceed those of most other organisations, except comparable national governments. But whilst the challenge is greater, the incentive to change can be weaker: government does not face the immediate competitive threat that has driven change in the private sector.

8.3 Organisational questions are central for two key reasons:

- establishing a good organisation is key to effective delivery of electronic services;

- the full benefits of e-business for large organisations are realised only as the organisation is transformed to take advantage of the possibilities ESD brings.

Organising to deliver electronic government services

8.4 Leaders in e-commerce in the private sector have found that costs, risks and speed of change all depend crucially on organisational factors. Fast-moving

Table 8.1: Examples of government organisational change to deliver ESD

Country	Organisational change	Comment
Australia	In 1997 the Online Council at ministerial level was formed.	Formed to "operate as the peak ministerial forum" on ESD.[51] Essential to provide continuing direction.
	Office of Government Online was formed in October 1998.	Makes sure "it all hangs together". Facilitates and co-ordinates e-government.[52]
Boston City (US)	E-government unit within Management Information Services Department.	Manages e-government services: handles database and technical administration (e.g. cybercash).
Brighton (UK local government)	Improvement and Development Division (headed by an Assistant Director).	New unit leads work on call centres, intranet and Internet. Works to integrate e-government into mainstream business and other initiatives of the Council.

[51] *Information Age Government: Benchmarking Electronic Service Delivery.* CITU. June 2000.
[52] Interview with Office of Government Online by video-conference. 26 May 2000.

companies like Egg have been developed by major private sector concerns (in this case, the Prudential) by building them as separate structures outside the existing organisation. As Jonathan Bloomer, CEO of Prudential, said: ''Egg would not have happened as it did if we had not made it a separate entity.''

8.5 Likewise, central and local governments who have been successful leaders of public sector ESD implementation have made organisational changes to deliver:
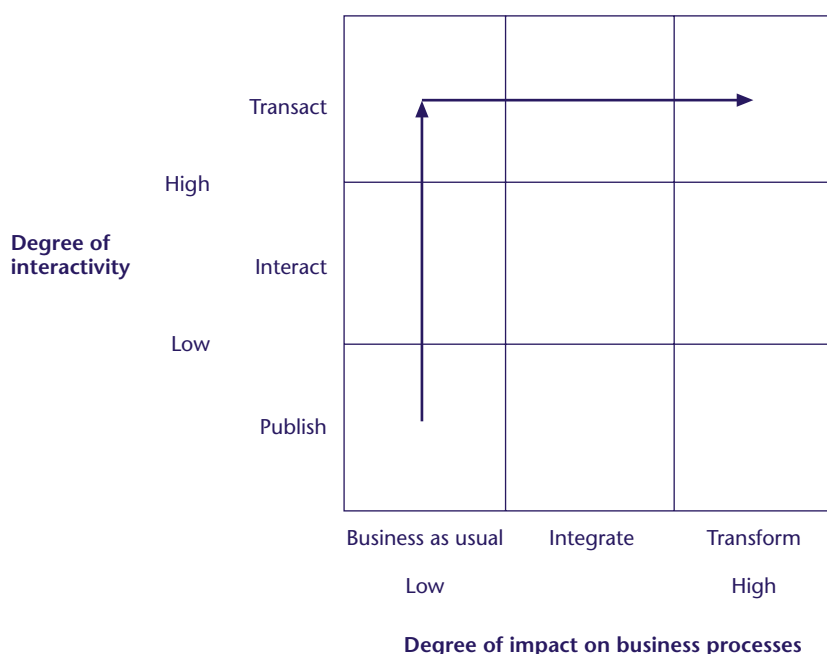
8.6 It would be facile to assume that one of these organisational models can be applied wholesale across the UK. Different public sector organisations in different countries have very different starting points, depending on the attitudes of the public and the history of government organisation. However, the lesson from all of them is that establishing the right organisation is key to the success of ESD.

Transforming to reap the benefits of ESD

8.7 Major organisations moving to deliver e-commerce have found that real benefits are realised only as the organisation embeds its e-commerce activities within the business and then transforms its business processes around e-commerce. This means that instead of delivering essentially the same services but through a new medium, the organisation uses the new technology to change its entire approach to doing business.

8.8 Figure 8.1 illustrates how ESD can have a significant effect on business processes, once the organisation is at the stage of transacting electronically. If the UK government is to gain the potential benefits of ESD, then it needs to make it a priority to bring its key transactional services online. Only then can it begin to transform its operations to take advantage of the new channels. The challenges that it must overcome to do this are set out in the next section.

Figure 8.1: ESD transforming government

Degree of interactivity

Transact

High

Interact

Low

Publish

Business as usual   Integrate   Transform

Low   High

Degree of impact on business processes

The challenge

8.9 In the face of the complexity of the public sector, there are a number of fundamental organisational challenges for government, which we have grouped as follows:

- *motivating* change in service delivery, so as to generate action on the government's key priorities;

- *obtaining the capability* within service providing departments and agencies to deliver change;

- *co-ordinating* these changes, so that action across government meets the needs of the citizen coherently; and

- *transforming* public sector delivery structures so that new patterns of service use are catered for, access is assured and efficiency gains realised.

We consider each of these in turn.

Motivating change is essential

8.10 Neither the financial rewards of success nor the competitive threat of failure exist to motivate government ESD and throughout the public sector there is a need to provide stronger incentives for change. The drive for change is being led from the very heart of government, and yet the centre (Cabinet Office and Treasury) has had few levers with which to influence progress. Without central direction, there is a risk of unco-ordinated investment, lost economies of scale and network benefits, and a prioritisation that fails to reflect the needs of the citizen.

8.11 A mixture of top-down and bottom-up approaches is required. The centre will slow progress and stifle innovation if it tries to take detailed decisions about the best approach to individual services. However, it is equally wrong to think that the diverse service delivery organisations that exist would

generate an optimal solution for government acting in isolation from one another. The key is to get the balance of roles right, but for the centre to be effective, it needs to be able to incentivise departments.

8.12 The *Government on the Web* report illustrated the current lack of central levers:

> *''CITU's look-ahead advice on future directions has often been listened to by departments and agencies, where staff with ICT roles are understandably made anxious by the current rapid change of pace … But departments and agencies with large ICT budgets do not see small-budget bodies like CITU or CCTA as significant players with any right to regulate operational decisions.''*[53]

8.13 There must be clear carrots and sticks for service providers to get their existing services online and to make them more citizen-focused, following common standards. There must be mechanisms to foster innovation, to prioritise effectively between services and to join up where possible. First we consider mechanisms to secure leadership from the top.

Top level leadership for ESD needs to be put in place

8.14 The major changes that will be required to implement ESD in the public sector will not be possible without leadership from the highest levels. For central government, this means that Cabinet Ministers and permanent heads of department need to be closely involved in driving through change. Regular Cabinet meetings are an important means of securing this.

Conclusion 22: There should be six-monthly Cabinet meetings on e-government, the first of which should be held in October 2000, to

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[53] *Government on the Web*. NAO. December 1999. p50, paragraph 4.6.

fit alongside the e-business strategy process.

8.15 The effectiveness of top leaders in implementing ESD should also be made a key measure of their performance. Their effectiveness should be judged by their success in implementing their approved e-business strategy.

Conclusion 23: The responsibilities of Permanent Secretaries and Ministers for ESD should be set out in their terms of appointment and should be taken into account in the assessment of their performance.

8.16 Additionally, there would be considerable merit in stronger personal incentives for all those involved in the delivery of the e-government agenda. The new Senior Civil Service pay scheme should be used to encourage ESD.

Conclusion 24: Civil Service Corporate Management Command should ensure that new arrangements for Civil Service pay encourage the delivery of the e-government agenda.

There should be clearer strategic direction for the electronic delivery of government services

8.17 The target of making all services available online by 2005 has helped to focus attention on bringing services online. However, it has also increased the perception that electronic delivery is additional to work to modernise government, rather than its key enabler. This perception is currently institutionalised by the separation between the Information Age and other strands of 'Modernising Government'. The original approach to monitoring progress against the targets (which counted all interactions equally, whether key to service delivery or not) also meant that activity to meet the

target need not necessarily have involved progress in bringing essential services online.

8.18 Progress in bringing key services for citizens online was not accelerated as priority was given to those services which could be brought online most easily. Insufficient importance was placed on an assessment of the impact that electronic delivery would make. Further, the targets do not drive departments to change their services as they come online, with the risk that electronic services are no more citizen-focused than their physically delivered counterparts.

8.19 There are few incentives to get priority services online quickly where to do so would compete with existing delivery mechanisms. Before the year 2000 spending review, no cross-government prioritisation had been attempted and, partly as a result, funding has not been closely tied to electronic delivery of the government's key services. The Capital Modernisation Fund and the Invest to Save Budget have been used to support initiatives for change, many of which involve electronic service delivery. However, these programmes were not focused solely on electronic delivery and the sums involved are small relative to total departmental funding, so that the leverage provided by the bidding process is not great. (In total, over the three financial years 1999–2002, ISB is worth £230 million and CMF £2.7 billion, of which £658 million has been allocated to ICT projects, mostly concerned with the back office.) Since the centre cannot control what departments bid for, these mechanisms cannot be used for a complete prioritisation.

8.20 The target is now monitored by reference to the proportion of services fully online. This approach will begin to address the above points, but will not incentivise departments to prioritise those services which are difficult to bring online but offer the largest potential benefits to citizens. The government therefore needs to improve its sense of

strategic direction. The first step is to establish levers at the centre to ensure that there is common direction across government, and to ensure that the key services from the citizen's perspective are driven online.

… using funding levers at the centre of government…

8.21 It has been agreed through the cross-cutting review of the knowledge economy that the Office of the e-Envoy should share 'dual key' responsibility for the release of funding with the Treasury (see table 8.2). This will ensure that departmental plans reflect government-wide priorities and that the release of funding is conditional on real progress towards delivering the government's ESD priorities.

Conclusion 25: The Office of the e-Envoy should use its dual key responsibility for the release of ESD funding to ensure that new investment in ESD is used effectively. Release of funding should be conditional on satisfaction that plans put forward support the government's wider objectives for e-government and that departments

have robust plans for realising efficiency gains.

8.22 It is critical that this does not delay implementation of ESD. Clearly, this means that the e-Envoy's office must have light-touch processes, but there is also a need to ensure that service deliverers have clarity about priorities before they apply for funding. A tool which can be used by all to establish priorities is therefore required.

… by setting priorities for ESD …

8.23 A prioritisation framework will help both the Office of the e-Envoy to make good and rapid decisions and departments to make proposals in line with the government's priorities. This is critical to ensuring that scarce resources are directed as effectively as possible. The framework must ensure that priorities are chosen to maximise benefits to the citizen. In practice, and particularly given the absence of data, this means that there must be a framework of criteria and rules for their application. The PIU has developed a generic framework for the prioritisation of services across government (see annex F).

Table 8.2: Dual key funding

It has been agreed through the cross-cutting spending review of the knowledge economy that the e-Envoy shall in future advise the Chief Secretary to the Treasury when to authorise the release of funds for ESD programmes. Authorisation would be conditional on:

● the programme demonstrating a satisfactory e-business plan;

● there being a strategy for linking with, and streamlining, existing delivery channels;

● the programme being consistent with the government's wider objectives for e-government;

● the programme design being fit for purpose, compatible with the single portal and with cross-cutting delivery; and

● satisfactory completion of the OGC procurement gateway process, in particular to ensure that the project management and contract strategy is satisfactory and that private and voluntary sector involvement is optimised.

Conclusion 26: The Office of the e-Envoy should build on the prioritisation framework attached at annex F to prioritise key strategic services across government, as described in the motivation section.

8.24 A list of early priorities has been developed between the e-Envoy's office, the knowledge economy cross-cutting review group and the PIU, by high-level application of the framework and has been agreed through a series of bilaterals between

Table 8.3: Priority services identified in the cross-cutting review of the knowledge economy

(Includes business as well as citizen services)	Implementation
By the end of 2000:	
Tax returns – electronic filing of tax returns and online contact centres (IR)	Now
Development of the UK Online citizens' portal, Government Secure Intranet Government Gateway and other corporate projects (Cabinet Office)	From autumn 2000
Development of the Learning and Work Bank – providing an online service for citizens looking for jobs or training opportunities (DfEE)	Dec 2000
By the end of 2002:	
All HE Student Support application forms online	Spring 2001
Connexions smart card for all young people to help with costs of participation in learning	Sept 2001
Small Business Service – putting the SBS online to provide information and advice to small businesses covering support services and regulation (DTI)	First release in Apr 2001 with ongoing development
VAT – online VAT registration and returns, trade statistics and electronic contact centres (C&E)	Fully in place by Jan 2002
Companies' registration – putting Companies House online to allow electronic registration of companies (Companies House)	Apr 2002
Modernisation of CAP payment systems and farmers' portal providing online applications for agricultural grants and advice (MAFF)	Dec 2002
Culture online – putting a large volume of cultural information across museums, libraries, art galleries, etc online, working in association with the private sector	Dec 2002
The option for local authorities to run small-scale experiments with online voting in local elections	Now to Dec 2002
By the end of 2005:	
Driving agencies – putting these online to deliver licence applications, car tax renewals, driving test applications etc electronically, and establish links with car insurance databases (DETR and agencies)	2005, but duplicate licences now
Benefit applications – putting benefit applications and payments online (DSS)	Jan 2005
Passport applications – putting passport applications and renewals online (HO)	2005
Conveyancing – enabling electronic land registration (HM Land Registry)	2005
Patents – enabling online patent filing (Patent Office)	2005
Modernisation of legal records – putting transactions between the public and the courts (e.g. civil claims), public records and Children and Family Court Advisory and Support Service into electronic, Internet-enabled formats (LCD)	Dec 2005

departments and the centre. These priorities are being funded through the 2000 spending review and are key parts of the programme for delivering the 2005 target, and for early introduction where this is possible. These are set out in table 8.3 above.

... by using Service Delivery Agreements to drive forward implementation...

8.25 Service delivery agreements (SDAs) between departments and the Treasury can be used to support this prioritisation and ensure that suitable proposals are brought forward in a timely fashion. We believe that it would be useful for SDAs to include a clear target for when key services and components of services will be online.

Conclusion 27: All SDAs should include clear targets for the priority services to be brought online. For priority services, SDAs should include:

- **date for full implementation;**

- **milestones, setting out what should be delivered by interim dates; and**

- **as far as can be determined, a list of services they should 'join up' with, when and how.**

8.26 These recommendations will provide clarity about the service priorities across government, together with clear carrots for service deliverers to act in accordance with the priorities. It would also be useful to establish a fall-back option to be used if existing service providers are moving slowly, or do not bring forward suitable proposals.

...by replacing poor performers...

8.27 One way of doing this is for Secretaries of State to switch service provision to alternative providers, for example by establishing 'dot.gov' start-up businesses. Start-up businesses could be introduced to take over responsibility for ESD from an

existing service provider, or to compete with an existing provider. Such new e-government businesses may focus on core, silo-based services, but could be used even more effectively to promote innovative, cross-cutting services.

Conclusion 28: Secretaries of State should consider the benefits of switching electronic delivery of government services to alternative service providers in the public, private and/or voluntary sectors where progress is slow. This might involve the creation of dot.gov start-ups: new entities to deliver cross-cutting and innovative services, or to compete with traditional delivery mechanisms.

8.28 The mechanisms and structures that will be available to enable this to take place are described in more detail in section 7.3.3 on developing new service ideas. If there is slow progress in any area, the e-Envoy should discuss with departments the reasons for this, and establish with them the best approach to making progress.

8.29 Much of the above applies in particular to central government. It is also critical that local government receives the support that it needs.

... and by creating a framework for successful ESD in local government

8.30 These arrangements will not be suitable for local government, where – even leaving aside questions of accountability – it would clearly not be feasible for the e-Envoy's office to approve e-government strategies for all local authorities. Nor would this degree of centralism be desirable. Nonetheless, there is a need to provide greater incentives and support for those local authorities that currently lag behind the leaders.

8.31 Currently, the 2005 targets that apply to central government do not apply to local government. The PIU recommends that this position needs to change.

Conclusion 29: Local government should undertake to meet the 2005 target for 100% of services being available online.

8.32 Best Value has the potential to act as a key driver of change, and to be an important vehicle for reaching the 2005 targets. The PIU supports the proposal to include Information Age targets in the set of national Best Value performance indicators.

Conclusion 30: DETR should include an Information Age government performance indicator in the Best Value performance framework.

8.33 Furthermore, it would be helpful if the Audit Commission encourages local authorities to undertake Information Age cross-cutting reviews early in their five-year plans. The Audit Commission should also make efforts to ensure that all audit teams include at least one member with recent ICT experience.

8.34 There is also a need to ensure that funding provided for local government ESD through SR2000 is targeted as effectively as possible. There will be various sources of funding for local authorities' additional investments in ESD. Mainstream budgets and PFI credits will be the main ones. In some cases, special budgets such as the Single Regeneration Budget and EU structural and regional funds will be important additional sources.

8.35 Additional funds allocated in SR2000 to DETR for local government should be used to secure a step change in electronic service delivery. DETR should lead development of a strategy to achieve this in concert with the e-Envoy's office and decide in the light of that strategy the best way to disburse additional

funds. This could include funding the costs of sharing best practice, pump priming schemes that would hasten development of ESD, bearing the costs of developing good business cases or the salary and bonus costs of specialist staff. Government Offices in the Regions, staffed with appropriately skilled people, should have a role in advising DETR on the development of e-government strategies regionally, advising local authorities on compliance with the e-Envoy's guidance, identifying synergies in investments and ensuring that technical standards are applied.

Conclusion 31: DETR should be responsible for developing a strategy with the Office of the e-Envoy to achieve a step-change in the electronic delivery of local authority services; and DETR should consider the practicalities and resource implications of working through Government Offices in the Regions to ensure that:

- **individual local authority e-strategies are approved in line with e-Envoy guidance and templates;**

- **regional network synergies in investments are identified; and**

- **central government funding for approved plans is targeted on areas where funding is most difficult and needs are the greatest.**

8.36 As well as providing a mechanism for information sharing between local authorities, there is also a need for a more effective interface between central and local government on the Information Age agenda. The LGA and IDeA have focused on servicing the local government body. There is a need to make current organisations more effective and to move on from the current position of concordats and forums. We believe that the LGA is well placed to liaise with DETR and the Office of the e-Envoy on e-government

strategy, and to link effectively with elected members. DETR should lead the implementation of the local government e-strategy in partnership with the LGA and the IDeA.

Conclusion 32: IDeA should support the implementation of local e-government strategies. IDeA should continue to:

- **develop national projects for local government;**

- **provide training and consultancy advice to local authorities developing their strategies;**

- **develop central–local pilots;**

- **maintain links with the key central bodies.**

It should also support the dissemination and interpretation of best practice information and guidelines.

8.37 The incentives described will help to push service providers to drive their existing services online. However, like the 100% targets, they do not concentrate on

developing services to focus more effectively on what citizens want. It is to this that we now turn.

Electronic government services should be citizen-focused

8.38 Many of the benefits of ESD arise because it becomes possible to deliver more integrated services (as can be seen, for example, on Singapore's life-events based e-citizen site), better reflecting citizen preferences. This requires more effective working between organisations, but the challenges of effective cross-cutting ESD are similar to those of other cross-cutting work. Accountabilities and incentives for joined-up government are the subject of a previous PIU report, *Wiring it up*, and the lessons from that report need to be applied to cross-cutting ESD.

8.39 The development of the National Land and Property Gazetteer (see table 8.4 below) is an example of what is possible in this country with joint action between central and local providers. However, 'joined-up' service delivery is hard to achieve because

Table 8.4: The National Land and Property Gazetteer

The NLPG is effectively a database providing unambiguous identification of land and property through unique property and street reference numbers. It is at the heart of the proposed National Land Information Service (NLIS), which will promote electronic delivery of land and property related services. NLPG project aims are to:

- work towards the delivery of citizen-centred services used by Local Authorities and their partners through the use of a single national address set;

- help local authorities to manage their information to British standards;

- provide a core address dataset for key initiatives such as the creation of electronic voting (based on nationally linked rolling electronic electoral registers) and simplified property searchers for conveyancing; and

- develop a standard methodology for updating and collating addresses and working with partners including the Valuation Office Agency, HM Land Registry, Registers of Scotland, Royal Mail and Ordnance Survey with a simple operation framework.

(with some exceptions, such as joint Public Service Agreements and Invest to Save) there are few strong incentives for interagency co-operation in delivering electronically.

8.40 One idea for producing more customer-focused services quickly is to establish *customer group* or *product managers*, who would be responsible for integrating the services that government delivers to a single group of citizens. This idea is discussed in the context of creating joined up portal sites in section 5.5.1. Customer segments may be identified in a number of ways, such as by life episode (for example, becoming unemployed), by life-cycle stage (for example, being a student) or by interest group (for example, motorists). It follows that a single individual will generally be part of several groups, with different requirements at different times; and that a service might be used by several different groups.

8.41 The functions of such a product manager would be:

● to find out what people in the customer group want from government;

● to bring together the services that the group wants in a coherent way; and

● to present the services to the group in the way that it wants them.

The product managers would therefore have the task of providing joined-up services to one group of clients, working across departments, agencies and local government and with outside organisations to do so. This is closely related to life event work being carried out as part of the UK online portal work (see table 8.5 below).

8.42 The task of identifying all of the relevant citizen segments is not achievable by a small group at the centre. It is also not desirable for the centre to establish product managers in large numbers, since the result of publicly funding large numbers of them would be to crowd out 'mixed economy' provision.

8.43 Nonetheless, government is a long way from achieving the vision, and needs to begin to build more integrated services, consistent with its long-term intent. One way of doing so would be to establish a small number of *demonstrator* product managers in the public, private and voluntary sectors to integrate content for a few key customer groups. Doing this would bring rapid benefits of joined-up service to these groups, and equally importantly would act to show the

Table 8.5: The UK online portal – life events

The UK online portal will initially provide four life episode informational services, which will later be enhanced to include more complex services. They are:

● *Having a baby*

● *Going away*

● *Dealing with crime*

● *Moving home*

A mixed group of departmental and technical experts will implement each life event service, led by a life event champion, usually chosen from the natural lead department (e.g. Home Office for dealing with crime, or Foreign and Commonwealth Office for going away).

value of the role both within and outside government. To what extent (if at all) public funding will be required should be appraised carefully on a case by case basis.

8.44 No more than four such product managers should be introduced. Judged in the first instance by their current access to technology and use of government services, four promising customer groups would be: students, parents, motorists and homeowners. A lead department would be identified for each product manager, but the budget would be pooled between the key departments involved (see *Wiring it up*, PIU, Jan 2000, p49).

Conclusion 33: There should be a small number of demonstrator product managers in the public, private and voluntary sectors, responsible for delivering joined-up content to key customer segments. The e-Envoy should identify four key customer segments and a lead department for each one. The product manager will then be responsible for developing joined-up electronic services to the identified customer group.

A government electronic service incubator should be established to develop and test new service ideas

8.45 If government wants to deliver ESD that really makes a difference for the citizen it needs to foster a culture of rapid service innovation. To free the entrepreneurial spirit within government requires creating and sustaining internal markets for ideas, capital and talent. However, there are several barriers to rapid innovation within government:

- new ESD ideas may be sidelined if they threaten to cannibalise existing government service deliverers;

- complex approval procedures mean that new ideas take a long time to be resourced;

- the incentives to create joined-up services outside existing organisational boundaries are low;

- the supporting infrastructure in terms of capital and skills (technological and managerial) are negligible or lack the critical scale to be effective; and

- finally, the rewards for successful innovation are low.

Table 8.6: In-house incubators

Firms as diverse as IBM, McKinsey & Co, BT and Disney have in-house incubators. Royal Dutch/Shell created a GameChanger process to enable unconventional ideas to circumvent the usual approval process. At Shell 'Innovation labs' bring small groups of people together and encourage them to produce radical ideas. 'Action labs' then help teams develop 100-day plans for conducting low cost, low risk tests of the best ideas generated. Approved ideas can receive as much as $600,000 within eight days.

A rare government example is the Digital Government Academy, developed in Washington State by the Department of Information Services. The Academy brings together business managers, technical developers from agencies and private companies and even the citizen (to test what is developed) to build applications. The end product is an application template and accompanying management tools, for departments and other public sector bodies in the State.

Sources: Various; Harvard Business Review (Sept–Oct 1999); PIU research.

8.46 Private sector incubators, which exist both within companies (see box above) and as independent firms (e.g. IdeaLab!) create a 'home' for the rapid development of small-scale prototypes. A government incubator could emulate this and overcome barriers to innovation within the government organisation. It would act as a legitimate home for rival services; have streamlined approval processes; focus on joined-up services; have a sufficient scale of technology and management support; and offer novel rewards for successful implementation.

8.47 Despite the potential advantages, a government incubator will face several complex issues needing careful management:

- first, it must not crowd out the private and voluntary sectors. As has been described elsewhere in this report, the private and voluntary sectors are keen to play a major role in the new G2C marketplace and announcements of government backed ventures may create a disincentive both to new entrants and to G2C innovations outside governments;

- second, as in the private sector, there will be failures as a result of low take-up of services. The expectation of some level of failure must be managed;

- finally, successful projects may have an existence in the public sector or may be deemed viable private sector entities. A clear process needs to be established to guide projects rapidly into the private sector as early as possible, where appropriate. This would help to release funds for re-investment.

8.48 We therefore recommend the establishment of an ESD incubator within the e-Envoy's office. This will be a small unit, with access to sufficient funds to build ideas rapidly. Ideas from within or outside government would receive funding and technical and planning support, as well as access to government information assets. They will be developed as small-scale prototypes. Roll-out will probably be in the form of public-private partnerships. Despite the need to work closely with other initiatives such as UK online, it is important that incubator projects stand alone. Funding for the incubator has already been secured within the SR2000 framework. The box below sets out further details.

Conclusion 34: An ESD incubator should be created within the e-Envoy's office as a home for start-up government ESD ventures. It will rapidly fund and develop, jointly with the private and voluntary sectors, prototypes from the public, the private and the voluntary sectors.

Table 8.7: Government incubator

Below we outline key features of the ESD Incubator (working title Gov.Lab). As with the creation of the e-Envoy's office itself, the key first step is recruiting staff and a board to manage the unit.

Management. The ESD incubator will be managed from a unit within the e-Envoy's office. A joint public-private-voluntary sector management board will be established which will select projects and oversee resource allocation.

Idea generation. Although we suggest some priority projects below, the main source of ideas should be open competition with ideas from within and without government. The incubator should aim to have launched about six projects at the end of its first year.

Selection criteria. The first question to be asked of any project is what, if any, public sector involvement is needed. The overarching criterion for projects will be to maximise *social return* (see prioritisation framework in annex F). In the short term emphasis must be on electronic services that make a real difference to citizens' lives. This means projects where the volume of transactions is high; where there is interaction, not just publication; where citizens have to deal with government (i.e. compulsory, not voluntary); and where services can be joined up (between central government bodies and between central and local government). Take-up of the new service is the ultimate selection criterion.

Priorities. Given the criteria stated above initial projects might include:

- *voting site.* As well as encouraging democratic participation, this would force the creation of strong identification and authentication mechanisms. E-democracy is already a theme for the government portal UK online and could be fast tracked here. Voting on issues from school governors through to local elections should be trialled;

- *benefits.* Eligibility, calculation of benefits, registration and so on could take place here. Some transactions may still require face to face interaction. The target audience is in lower web usage categories, which will force access improvement.

In addition, new product managers should work closely with the incubator as they develop ideas to prototype stage. Links between product managers and the incubator could be formal initially, becoming more distant as services become more established.

Funding. Funding for an incubator has already been secured within the Spending Review 2000. This will be used to lever in private sector funding for many projects.

Ownership. We expect an ownership spectrum from largely public through to largely private and voluntary sector ventures.

Staffing. The unit will need a small central staff to filter and administrate the project portfolio. The central staff will also contribute to web design, project management and delivery. Project and central staff will be drawn from within central and local government and from the private sector.

Remuneration. Large incentive bonuses should be paid for on-time delivery. Equity participation should be considered where potential for private sector existence is clear.

Infrastructure. Staff will work in one place to ensure cross-fertilisation of ideas and experience.

Project timing. Project owners must deliver a 100-day action plan within the first month. Pilots should be launched within 6 months, full launch 9–12 months after the start date.

Incubator lifetime. The success or failure of the incubator should be reviewed at the next spending review.

The public sector needs to take urgent action to ensure that it has the capacity to deliver ESD

8.49 Establishing incentives and structures at the centre for rapid development of ESD is only the first step in establishing an organisation that can deliver. It is not the centre, but the existing service providers that must deliver services to the citizen, and they must have the capacity to do so. There are two key areas:

- obtaining the appropriate skills; and

- establishing suitable structures to deliver.

By obtaining people with the necessary skills…

8.50 ESD is not primarily about technology, but rather about the chance to transform service quality. However, ICT-related project management and professional IT skills are fundamental to a successful move to ESD, as are managers and strategists able to take a broad view of service delivery and the possibilities offered by technology. None of these are sufficiently available to government. The Cabinet Office *Review of Major Government IT Projects* showed that project management skills are in short supply. Equally, and partly as a result of outsourcing, the number of IT professionals in central government has fallen from some 12,000 around ten years ago to about 3,000 today.[54] This decline is important not only because it leaves government without capacity to carry out the internal IT work that supports ESD, but also because it reduces government's capacity to deal intelligently with the private sector on matters of technology. The picture in local government is very similar, with major outsourcing having left many authorities bereft of IT professionals.

8.51 Government's problems in obtaining IT skills are exacerbated by a shortage of skilled IT professionals nationally. Current evidence suggests that the shortage will grow from 220,000 people now to 300,000 by 2003, and that at the same time, the Europe-wide skills gap will be 1.7 million.[55]

8.52 In this environment, even major private sector consultancies have experienced significant difficulties in recruiting and retaining staff. Research by Hay shows that dot.com managers are currently earning up to 40% more than their 'old economy' counterparts; and shares in fast growing start-ups can provide substantial incentives for success. Firms like McKinsey's and Andersen Consulting talk in terms of a 'war for talent'. Government cannot at present match the incentives offered in the private sector, and must find ways of bringing in skills in a highly competitive market.

8.53 There is a substantial role for the private sector in implementing many aspects of ESD. However, it would be a grave mistake for the public sector to allow its stock of skills to run down to a level where it is unable to be an intelligent customer. The government must therefore understand what skills it needs and examine the options for fulfilling that need. The e-government group has already begun to do that, identifying the headline areas set out in table 8.8.

8.54 Following this work, central government departments are in the process of deciding what mix of skills they need to carry out their e-business strategies and are auditing present skills to see where they are lacking. Similar efforts are being made in local government, led by the Society of IT Management (SOCITM), who have developed some ideas for encouraging recruitment and retention in local government.[56]

[54] *Review of Major Government IT Projects.* CITU. May 2000.
[55] IDC, Datamonitor and J@M Associates in association with Microsoft.
[56] *Services at risk? The growing shortages of ICT skills.* SOCITM, SOLACE, SOCPO. Spring 2000.

Table 8.8: Headline skill areas

Technology/information professional skills areas	Business and management skills areas
Support for business strategy and planning	Business strategy and management
Technical strategy and planning	Information systems strategy and management
Management and administration	Management of services and relationships
System development	Technology understanding and awareness
Implementation and operations	User support and development
Service management and delivery	Implementation and programme/project management[57]
User support	

8.55 These departmental examinations of skills needs should be drawn together to provide an analysis of the total skill shortfalls in government, and an examination of possible approaches to bridging the gaps.

Conclusion 35: The Civil Service Corporate Management Command in the Cabinet Office should commission a study to establish by December 2000 the current and potential future shortfalls in skills, and approaches to tackling them.

8.56 In addition, departments need some pay flexibility to retain key staff in areas of skills shortage. The majority of organisations in the UK operate performance related pay schemes, which have delivered real benefits, particularly in the private sector. The principle of individual bonuses has widespread support in the Civil Service but there is a general view that their operation has been ineffective.[58]

8.57 Four departments will this year pilot new versions of pay schemes that link the pay for those responsible for key business objectives to their delivery and introduce team incentives for their national networks. The PIU believes that such pilots could usefully be extended to those involved in

the delivery of ESD. Most ESD units will be relatively small, so that substantial bonuses could be offered at marginal cost and risk to the department. Remuneration packages for scarce specialist skills would be considerably enhanced and key programmes of e-government investment would be incentivised.

Conclusion 36: The government should extend pilots of incentive schemes to the ESD units of all key service delivery departments. Bonuses should be tightly linked to achievement of key targets.

8.58 Judging the extent of the achievement of targets and their impact will require fast and accurate management information systems. Monitoring systems will need to be developed, and third party review would be one option.

8.59 Apart from obtaining the necessary professional skills, government also needs to raise awareness and practical knowledge of ESD more generally. Government cannot afford to pigeon-hole ESD, by treating it as an ICT issue. There is as yet insufficient awareness amongst senior management of the potential of ESD to transform the delivery

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[57] CITU work on skills supporting government e-business strategies. June 2000.
[58] *Incentives for Change* report for the Public Sector Productivity Panel (Her Majesty's Treasury). J Makinson. January 2000.

of services across government. The Centre for Management and Policy Studies (CMPS) in the Cabinet Office has already developed a programme, leaders@e-government, for top civil servants which covers many of the most important facets of electronic service delivery. The PIU believes that all board-level civil servants in major departments and agencies should attend this or a similar course.

8.60 Government also needs to take seriously the idea that in future 'all government will be e-government' – in other words that electronic ways of working will permeate all government activity. This means that, in future, all staff will need to be capable of working through new technology, and to be aware of what it can offer.

Conclusion 37: All Permanent Secretaries and board-level civil servants from key departments and agencies should attend the leaders@e-government course or a similar course. CMPS should consider what adjustments should be made to the course to make it suitable for each board by December 2000.

CMPS should also consider ways of raising awareness of the possibilities and implications of new technology amongst all those involved in service delivery.

E-business units should be established in all major service delivery organisations to deliver electronic services

8.61 The second element of achieving the capability to be successful is in structuring to deliver. The key structural question is the extent to which the e-business aspects of the organisation's work should be integrated within its traditional structures. At one extreme, an essentially new ESD organisation can be established; at the other, those responsible for traditional delivery of a service can be made responsible for its electronic delivery.

8.62 Figure 8.2 shows a continuum of e-business organisational models, from wholly independent at one extreme, to wholly integrated at the other.

Figure 8.2: E-business organisational models

High integration	I	II	III	High independence
	Integrated into traditional organisation	E-commerce unit linked to traditional business	Dot.com– essentially independent	
	• Resources reside in traditional business	• E-commerce leader with clear goals	• Completely independent company	
	• Budgets managed within traditional business	• Dedicated organisation	• Mechanism to re-invent organisation	
	• Traditional functions responsible for business change	• Unit to provide catalyst for business change	• Own processes optimised for e-commerce	
			• Focused on equity growth	

8.63 Currently, most government organisations are attempting implementation using their normal, internal processes – a model close to the leftmost end of the spectrum. This is not an approach taken by leading overseas governments or private sector businesses. However, as table 8.9 shows, fast-moving businesses have chosen various structural models.

Table 8.9: Structural models for ESD in the private sector

Company	Organisational change	Comment
Egg	Formed as a wholly separate subsidiary of the Prudential. Began as a telephone bank and quickly switched its main business to the Internet.	Grew so fast that, according to some, it re-focused on the Internet to slow down growth.[59]
smile	Formed within the Co-operative Bank with dedicated management and separate budget – designed explicitly for the Internet (though with telephone support).	Has also grown quickly. The Co-op Bank did not see the need to start it up as a separate business, although it has a large degree of autonomy.[60]
Wingspan Bank (US)	Formed in 1999 by Bank One in Chicago as an almost completely separate online bank. Customers can use Bank One's ATMs but not its branches. Wingspan is one of America's largest Internet banks.[61]	By keeping Wingspan's business distant from its own, Bank One has reduced the immediate need to close branches. Bank One offers its own multi-channel service, for which customers pay more.

Figure 8.3: Strengths and weaknesses of e-business models

	I	II	III
	Integrated into traditional organisation	E-commerce unit linked to traditional business	Dot.com– essentially independent
Pros	Low risk	Builds on existing strengths	Steps over current organisational barriers
Cons	Nothing may happen No incentive for co-operation	May compete with existing business for resource	Highest risk Major challenge to existing power bases
Why?	Low urgency	Medium urgency Needs to build on existing skills	High urgency If survival at risk

[59] *On Whose Face?* in *Online Finance Survey.* The Economist. 20 May 2000.
[60] Interview with Bob Head, CEO of smile bank. London. 11 April 2000.
[61] *The Case for the Defence* in *Online Finance Survey.* The Economist. 20 May 2000.

8.64 The different models on the spectrum have different strengths and weaknesses, and would be adopted in different situations. Figure 8.3 summarises the pros and cons of three points on the continuum, together with circumstances in which each might be adopted.

8.65 The fully integrated structure is unlikely to deliver the required speed of progress. However, there is no threat to survival or powerful first-mover advantage to suggest that government should begin by establishing wholly independent ESD organisations. As discussed above, a total lack of progress in any area would strengthen the case for new dot.gov start-ups. At present, however, we believe that the best approach for government along this continuum is to establish an e-business unit.

8.66 HM Customs and Excise and the Inland Revenue are two of the fastest-moving departments in delivering ESD and have adopted models close to this one. Both find that it has increased significantly their speed of implementing ESD, and has enabled them much more easily to integrate 'silo' services. In HMC&E, for example, the e-business unit is responsible for all aspects of customer-focused electronic service delivery, including policy, communications and delivery.

8.67 It might be thought that this model would slow the integration of e-business practices within the organisation as a whole. Evidence from the private sector suggests that this is not so. For example, when Prudential established Egg, the success of the new entity was instrumental in driving change across the rest of the organisation. Throughout the business, change was accelerated because a demonstration of the potential of digital delivery made it unacceptable not to take rapid action to move to ESD.

8.68 The PIU therefore believes that there is a very strong case for each major service delivery organisation to establish a unit responsible for the front-end delivery of all electronic services across the organisation. Such a unit should focus on the business and service delivery needs of all parts of the organisation, rather than on technology. The detailed structural arrangements, however, should of course be tailored to the needs of the organisation in question.

Conclusion 38: Establish an e-business unit within each major service delivery organisation, responsible for the front-end delivery of electronic services by December 2000.

Co-ordinating activity

8.69 At present, although there are many 'enabling frameworks' and 'guidelines' the centre finds it difficult to mandate a common approach to ESD. As a result, significant economies of scale and network benefits are in danger of being lost. This is particularly true of local government, where there is a very wide variation in performance in delivering services electronically.

8.70 Clearly, there is no merit in the centre taking powers to second-guess service providers in areas where it lacks those organisations' information and competence. Departments and agencies must have sufficient freedom to serve their customers in the way that best suits their needs and circumstances. Too much central direction could be as damaging as too little, if it imposes an inappropriate uniformity that puts conformity ahead of responsiveness: "it needs to be a loose overcoat rather than a straitjacket."[62]

8.71 However, a number of things need to be co-ordinated if government ESD is to be successful. As identified in chapter 6, the development of a brand and marketing strategy for the whole of government is one of these. Others are:

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[62] Barry Quirk, Chief Executive, Lewisham Council. 3rd Advisory Group Meeting for ESD Project. 19 June 2000.

- **technical standards** – covering interoperability, authentication, security and so on. Guidelines for most of these have been developed by the Office of the e-Envoy. However, they must be made mandatory and enforced;

- **key common functions** – at present one body has responsibility for standards development, common infrastructure development and centrally run projects, potentially giving rise to 'poacher and gamekeeper' problems. There needs to be a clear separation between the roles;

- **information sharing** – currently there are no mechanisms for gathering and sharing information across government. In such a new area, there would be advantages in developing specific mechanisms for improving the online sharing of information and best practice across government.

We take each of these areas in turn.

Technical standards should be mandatory...

8.72 Electronic service delivery depends crucially on the adoption of common standards within government, and on ensuring that these standards fit sensibly with those emerging in the wider world. If different parts of the public sector adopt conflicting standards, then economies of scale will not be realised, and service quality will suffer as it becomes difficult to integrate services. It is therefore critical that common standards are developed and mandated from the centre of government. The Office of the e-Envoy is developing such standards, and it is essential that they are accepted and applied across the public sector.

8.73 Progress is being made to ensure conformity with standards. The Office of National Statistics, for example, has an "in-house project team [who] are ensuring that the

architecture and operability of [their] new web-site complies with central government guidelines, where relevant."[63] Nonetheless, the benefits of common standards are only fully obtained if they truly are common to all. The standards that have been set must be agreed, *mandated*, and applied rigorously to all projects.

8.74 The levers described above, and particularly the dual key funding mechanism, need to be used to ensure that standards are implemented consistently. Projects should not receive funding unless they comply with agreed standards. Because the standards will be widely disseminated across government, there should be no question of this requirement slowing progress.

Conclusion 39: All departments and agencies must implement mandatory standards developed and agreed as part of the e-government strategy.

...and there must be separation of standards setting from other functions...

8.75 A number of key functions are carried out at the centre, and play a part in co-ordinating government activity. However, there is a danger that these fundamentally different roles might give rise to 'poacher and gamekeeper' problems, so reducing the effectiveness of the co-ordination. Three key tasks need to be separated out:

- **setting technical standards** – as discussed, there is a need for a continuing function to develop and agree standards and to monitor their implementation;

- **infrastructure development** – the function of developing and implementing common infrastructure. The construction of the Government Gateway is key. This common interface within government and between government and the outside world and the related security and

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[63] PIU research of central government. April 2000.

authentication infrastructure are crucial enablers of joined-up government;

- **ESD operations** – the role of carrying out the projects being run from the centre. The most important are the UK online portal, and the joined-up services being developed for it. These will play an important role in delivering joined-up government services.

Conclusion 40: There must be clear organisational separation between those responsible for technical standards setting, infrastructure development and the operation of common services related to the UK online portal.

…and the centre can do more to support the sharing of information and best practice

8.76 Government currently lacks basic information about the costs and benefits of ESD. For example, there is currently little knowledge of the transaction costs involved in delivering services; and little understanding of the demographics of customer groups receiving services or about their preferences for service delivery. There is no systematic attempt to collect this data and no mechanism for sharing it across government.

8.77 Although not comprehensive, a PIU examination of cross-governmental plans for future Electronic Service Delivery has thrown this lack of information into sharp relief. Fewer than 10% of the proposals discussed whether overhead savings were achievable, and almost none ventured a figure. Where transaction cost savings were identified, they were never quantified. There were almost no projections of take-up, and hence no long-term planning for switchover from one channel to another. In addition, there was little information about implementation, its ease or the challenges involved. There was

little data or analysis of the possible benefits to be gained by citizens from ESD.

8.78 We believe that there should be some capacity at the centre of government to collect and disseminate useful information about ESD across government. This research function would seek information from early experience in the UK public sector, and supplement it with private sector and international evidence. As pilots and services develop, information from these would be used to build the information base. Submission and dissemination of information over the Government Secure Intranet would make it as straightforward as possible to gather and use the knowledge.

8.79 The volume of data it contains will determine the value of the knowledge base. An initial exercise will be needed before launch to gather together and analyse existing data. As the service becomes established it should achieve its own momentum.

Conclusion 41: The e-Envoy and HMT should agree arrangements to establish a research function to gather and disseminate online data on ESD and e-government by autumn 2000. The function should be in place by March 2001.

CMPS should work with the Office of the e-Envoy to create a knowledge pool for e-government from March 2001.

Opportunities for scaling back physical networks require careful management if the transformation offered by ESD is to be realised

8.80 The final major organisational challenge for government is to deal with the people and asset implications of ESD. As services

migrate from physical to electronic channels, there are cost savings to be achieved, and opportunities to develop a more customer-focused approach to service delivery. Both have substantial implications for people and assets. Cost savings mean the scaling back of traditional delivery networks and reductions in the number of people involved in transaction processing. More customer-focused delivery implies that government will need people with different skills and different patterns of work, located in different places.

8.81 In the past, government could only deliver services by establishing physical networks as delivery arms. These networks are generally arranged along functional lines, with each one delivering a set of services to the citizen. However, a number of other formal and informal networks exist wholly or partly to deliver government services to the public, including the Post Office network, public libraries and community pharmacies.

8.82 The diminishing demand for traditional channels will mean that existing physical networks will need to be thinned out in order to deliver efficiency savings. This has profound implications. To indicate scale, there are approximately 750,000 people working in non-manual administrative grades within local authorities and the Civil Service. Not all will be affected, but retraining, redeployment and rationalisation on the scale that this implies will need to be planned, and action will be required very soon.

8.83 Physical networks will, of course, continue to play an important role for some time. Large numbers of people carry out work, which cannot be automated in the foreseeable future. For example, personal advisers will remain essential in a number of areas. Furthermore, albeit to varying extents, the clients of these networks hold them in

high regard and value the convenience and accessibility that their local offices provide.

8.84 Nonetheless, there is no doubt that there is painful change ahead, as ESD substitutes for some traditional operations. Many people in traditional service delivery arms of government undertake basic processing work, and many administer paper-based systems. At present, there are few explicit plans in place to manage this change.

8.85 Service providers need to begin to make plans. However, if changes to networks are to be optimal, there is a need for some collective action. For example, several existing bodies are planning public access kiosks for their client groups. There is a risk that competing kiosks will result and that their distribution will be less than ideal. For example, if each delivery organisation decides in isolation where its outlets should be, then there may be several access points in one high street, and none in the next.

8.86 Departments have already begun to recognise the need to work together to develop a solution.[64] However, there is a need to carry out a study that will look across all delivery networks, with a view to working out how to manage the expected changes. The study should work out what the future people and asset needs of government delivery channels will be. It should seek to establish how many people will be affected by change and in what way, and should look at how government can go about optimising its physical networks of assets to provide services for all as efficiently as possible.

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[64] For example, Inland Revenue (IR), HM Customs & Excise (HMC&E), DfEE and Department of Social Security (DSS) have produced an outline study on the implications of e-government. June 2000.

Conclusion 42: HM Treasury should commission a study to examine the people and asset implications of ESD, working jointly with CSCM on the people aspects and looking by service provider at: the likely timing of changes; the number of people affected; the likely need for and distributions of physical networks. The study should look across the range of government activity with a view to optimising the physical network of assets to provide services for all as efficiently as possible.

9 IMPLEMENTATION

Summary

To realise this report's vision for ESD, the recommendations in it need to be acted upon. There are many important ESD initiatives currently taking place, which will be instrumental in allowing the implementation of the report's recommendations. These include the targets for 100% service availability and 100% Internet access by 2005, the launch of the UK Online citizen portal site, the launch of the Government Gateway infrastructure, interoperability standards and e-business strategies being produced by departments. In this chapter we set out the timetable for these initiatives, and present an integrated action plan for the implementation of ESD recommendations in this report.

9.1 Acting on the recommendations of this report to realise its vision can be most effectively achieved by integrating this project's recommendations with existing structures and initiatives. In this chapter we review the timetable for the main ongoing ESD initiatives described in the introduction, set out the timeline for this report's vision of ESD to the citizen and the key actions, and present an action plan with timings and lead responsibilities for all the recommendations contained in this report.

Timetable for UK and EU ESD initiatives

9.2 The year 2000 has seen a number of government reports on key ESD initiatives with more due to be published (see table 9.1).

9.3 By the first half of 2000 a number of guidelines to support the e-Government strategy had been published by the Information Age Government Champions or were undergoing public consultation.[65]

9.4 The European Union has announced the e-Europe 2002 initiative which aims to ensure that citizens have easy access to essential public data, and promotes online interaction between citizens and government.[66]

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[65] *Guidelines* and other supporting documents for e-government strategy.
[66] *e-Europe 2002, an Information Society for All, Action Plan.* Council of the European Union Commission of the European Communities. June 2000.

Table 9.1: Government ESD activity in 2000

Month	Activity
January	Change of address demonstrator and portal demonstrator (CITU) Research into attitudes to a change of address function (CITU/MORI)[67]
February	–
March	Publication of a study on achieving universal access to the Internet (Booz-Allen and Hamilton)[68]
April	Publication of the e-government strategic framework (CITU)
May	Completion of a study of major IT projects (CITU)[69] Completion of ESD Progress Report against Targets (CITU)
June	Completion of ESD International Benchmarking Report (CITU)
July	Publication of SR2000 spending review (HMT)
August	–
September	Publication of this ESD report (PIU) Annual report by the e-Envoy
October	Departments' e-business strategies (commissioned by e-Envoy)
November	–
December	Review of IT strategy and progress (e-Envoy) Launch of UK o 94

Table 9.2: European Union ESD activity

Action	Actor(s)	Deadline
Essential public data online including legal, administrative, cultural, environmental and traffic information.	Member states, European Commission	end 2002
Member states to ensure generalised electronic access to main basic public services.	Member states	end 2002/3
Simplified online administrative procedures for business, e.g. fast-track procedures to set up a company.	Member states, European Commission	end 2002
Develop a co-ordinated approach for public sector information, including at European level.	European Commission	end 2000
Promote the use of open source software in the public sector and e-government best practice through exchange of experiences across the Union (through the IST and IDA programmes).	European Commission, member states	during 2001
All basic transactions with the European Commission must be available online (e.g. funding, research contracts, recruitment, procurement).	European Commission	end 2001
Promote the use of electronic signatures within the public sector.	Member states, European Commission	end 2001

[67] *Assessing Attitudes to the Change of Address Function*. Government portal research conducted by MORI. January 2000.
[68] *Achieving Universal Access*. Booz-Allen and Hamilton. 7 March 2000.
[69] *Review of major IT projects*. CITU. May 2000.

Leadership in implementing this report

9.5 The previous three chapters of this report contain 42 conclusions, each with clearly identified responsibility for implementation. However, there is also a need to ensure ownership and responsibility for the overall programme, including appropriate ministerial direction and accountability. Whilst departments and agencies will have the key responsibility for implementing ESD on the ground, the e-Government Minister and the e-Envoy are the appropriate people to bring the programme together.

Conclusion 43: The e-Government Minister and e-Envoy should together champion implementation of this report as part of the overall e-government strategy.
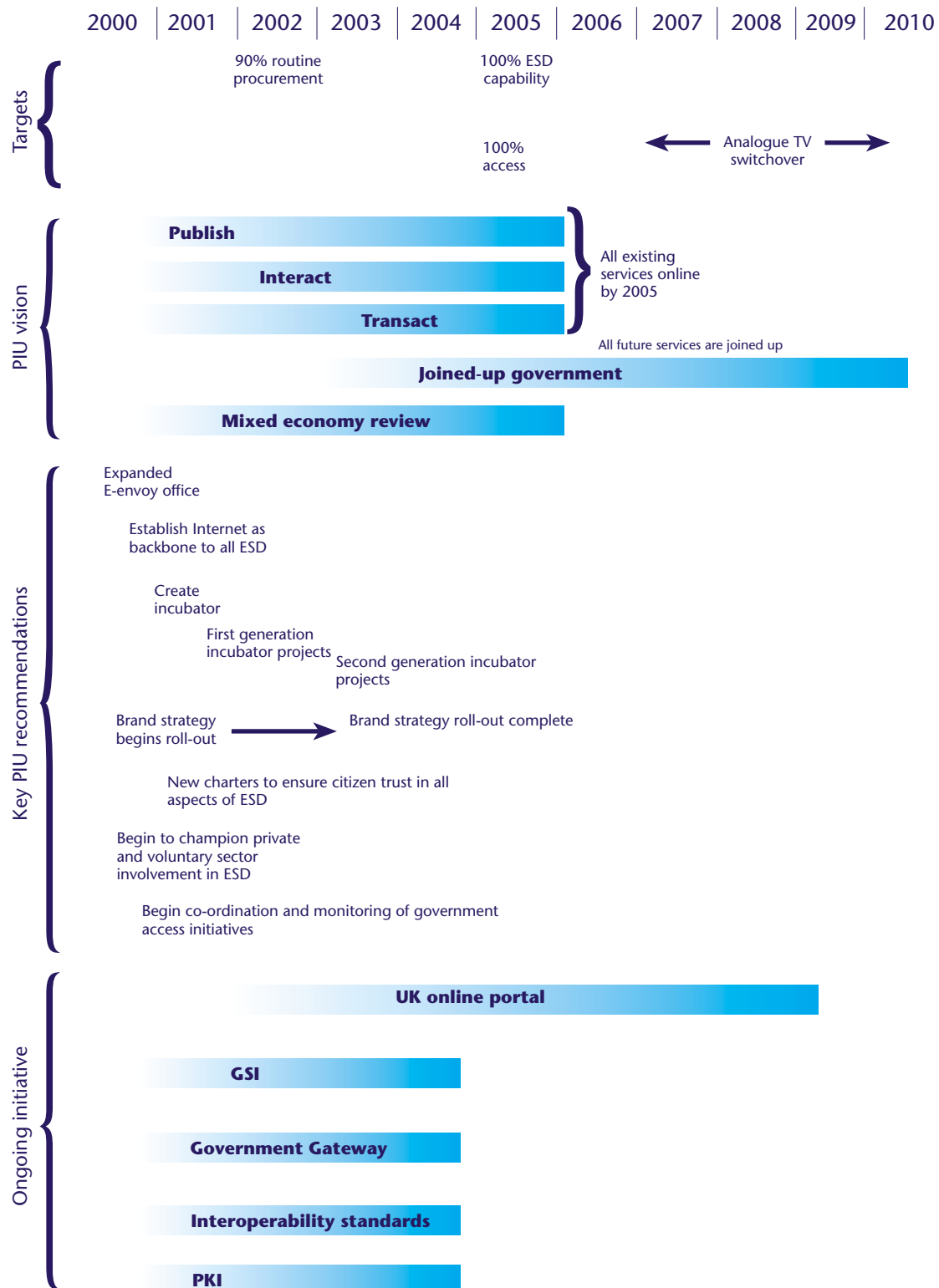
The e-Envoy should have overall responsibility for monitoring progress towards this report's recommendations and should report on progress as part of his annual report to the Prime Minister. He should work with Information Age Champions who will be responsible for implementation in their own departments and should report on progress in their e-business strategies.

The timetable for the PIU vision of ESD

9.6 This report's vision of ESD involves the roll-out to the citizen of services of increasing sophistication. In the Benefits chapter, we developed a typology of these services into those which *publish* information to the citizen, those which allow the citizen to *interact* with government, and those which allow *transactions* between citizen and government.

9.7 As time progresses, we will see electronic services becoming more sophisticated with interaction and transaction becoming the norm, and increasingly we also expect to see joined-up service delivery by the public, private and voluntary sectors. The figure below shows how the vision and key recommendations in this report fit with the ongoing ESD targets and initiatives across government. 2005 will be a key milestone year for ESD developments, but the ESD development process will not end then.

Figure 9.1: Timeline for government ESD

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010

Targets

90% routine procurement

100% ESD capability

100% access

Analogue TV switchover

PIU vision

Publish

Interact

Transact

All existing services online by 2005

All future services are joined up

Joined-up government

Mixed economy review

Key PIU recommendations

Expanded E-envoy office

Establish Internet as backbone to all ESD

Create incubator

First generation incubator projects

Second generation incubator projects

Brand strategy begins roll-out

Brand strategy roll-out complete

New charters to ensure citizen trust in all aspects of ESD

Begin to champion private and voluntary sector involvement in ESD

Begin co-ordination and monitoring of government access initiatives

Ongoing initiative

UK online portal

GSI

Government Gateway

Interoperability standards

PKI

Timetable for PIU ESD conclusions

9.8 The table below summarises timings and lead responsibilities for all the conclusions contained in this report.

Reaching the Citizen				
No	**Conclusion**	**Lead responsibility**	**In support/ other key players**	**Deadline**
1	DfEE working closely with Office of the e-Envoy and other departments should take the lead in co-ordinating all community-based access initiatives to ensure they form a coherent programme, which will deliver universal access to the Internet by 2005. DfEE should appoint a senior official/have a minister responsible for overseeing/leading this co-ordinating function.	DfEE	Office of the e-Envoy, departments	From Dec 2000 onwards
2	Government Offices in the Regions working closely with DfEE should take the lead in co-ordinating policies on access at the regional and local level and integrating local government policies with central departmental programmes. Directors of GORs should report on progress every six months to the responsible minister at DfEE.	GORs	DfEE, Regional Co-ordinating Unit	From Dec 2000 onwards
3	Government should work with the private sector to encourage widespread take-up of DTV and of Internet access via DTV as an important contributor to achieving the goal of universal Internet access by 2005. This should be taken into account in the work to prepare for analogue switchover.	DCMS	DTI, DfEE	From October 2000
4	The Modernising Public Services group in the Cabinet Office should develop a cross-government strategy for dealing with the citizen over the telephone by March 2001. In developing business plans for online services, departments, agencies and local authorities should ensure that: - key online government services are supported by a web-enabled call centre facility where appropriate; and - call centres are capable of dealing with a range of related enquiries, rather than being based on single 'silo' services.	MPS, departments, agencies, LAs		Strategy in place by March 2001

Reaching the Citizen				
No	Conclusion	Lead responsibility	In support/ other key players	Deadline
5	Government Offices of the Region to help local government to achieve economies of scale by co-ordinating call centre investments. DETR should promote bids for joined-up call centres, for example between county and district councils, where this would lead to economies of scale.	GORs	LAs, departments	From Dec 2000 onwards
6	Alongside the 'Government General Practitioner' pilots to be carried out as a result of the PIU report on modernising the Post Office network, the Modernising Public Services group in the Cabinet Office should pilot mobile as well as fixed facilitators.	MPS	Office of the e-Envoy, DfEE, LAs	From June 2001 onwards
7	Government should adopt the Internet as the backbone of ESD and put services on it as the default option. Content should be constructed so that it can easily be re-purposed for different platforms.	Departments, agencies, LAs		From October 2000
8	Departments, agencies and local authorities should promote fully automated channels and online services as the primary means of ESD to citizens. Telephone access to web-enabled services should also be a key component of delivery plans, but should be used for access and support, rather than as the main channel, wherever possible. The e-Envoy should support this approach in making funding recommendations.	Departments, agencies, LAs	Office of the e-Envoy	From October 2000 onwards
9	The Office of the e-Envoy and DfEE should work together to establish co-ordinated arrangements for investments in kiosk services. These should ensure that government achieves value for money in distributing its content widely, whilst presenting a coherent and joined-up face to the citizen.	Office of the e-Envoy, DfEE	Departments, GORs, LAs, OGC	From June 2001 onwards
10	All government services to the citizen should be available through the UK Online portal, unless given specific exemption by the Office of the e-Envoy. However, access through multiple citizen-focused portals should be the norm.	Departments, agencies, LAs, Office of the e-Envoy		From October 2000 onwards
11	The Office of the e-Envoy should build on existing web guidelines to establish mandatory standards for the usability of government services, including navigation and transactions. These standards should be thoroughly tested with the target audience.	Office of the e-Envoy	Departments, agencies, LAs	By March 2000

Reaching the Citizen				
No	Conclusion	Lead responsibility	In support/ other key players	Deadline
12	The Office of the e-Envoy should develop a Trust Charter for government ESD in co-operation with the Data Protection Commissioner.	Office of the e-Envoy	DPR	By June 2001
13	The Office of the e-Envoy should publish a code setting out standards for display practices appropriate for government services delivered electronically.	Office of the e-Envoy		By December 2000
14	The Office of the e-Envoy should develop a strong marketing and brand strategy for government ESD.	Office of the e-Envoy		By March 2001
15	Each business case for an online service should include a clear projection for use of the service, and a clear strategy for achieving that level of use. Business plans should be based around a staged funding approach, with clear break points to review the success of the service and to make decisions about the direction of the service, whether to invest further and if so how this should be targeted.	Departments, agencies, LAs	Office of the e-Envoy, HMT	From Dec 2000 onwards

Creating a Mixed Economy Delivery Market				
No	Conclusion	Lead responsibility	In support/ other key players	Deadline
16	The e-Envoy's office should champion the development of interaction and transaction markets. In particular, they should press public sector bodies to become 'open for business' and support private and voluntary sector organisations who seek to deliver electronic government services but experience difficulties. The e-Envoy and HM Treasury should review this role in 2003.	Office of the e-Envoy	HMT	From Dec 2000, reviewed by October 2003
17	The Office of the e-Envoy should contract ongoing research about advertising on public sector web-sites and monitor income and appropriateness. This should be under way before the end of 2000.	Office of the e-Envoy		From Dec 2000 onwards

Creating a Mixed Economy Delivery Market				
No	**Conclusion**	**Lead responsibility**	**In support/ other key players**	**Deadline**
18	Early examples of the provision of government services by third parties (such as tax self-assessment and the change of address service) should be allowed to develop. HMT and the e-Envoy should adopt a very light touch, but monitor them to ensure that equitable and efficient outcomes are achieved.	e-Envoy, HMT	OFT, DTI, HMSO	From October 2000 onwards
19	HMT should chair a working party of the relevant authorities (OFT, DTI, HMT, HMSO, others) to agree the longer-term framework for the interactive government information market.	HMT	OFT, DTI, HMSO	By Dec 2000
20	All e-strategy and business planning submissions should explicitly consider the rationale for government intervention and funding, and demonstrate that private and voluntary sector involvement in publicly funded projects has been optimised. This needs to be monitored by the e-Envoy's office and HMT as part of the budget allocation process.	Departments	Office of the e-Envoy, HMT	Ongoing
21	The e-Envoy and HMT should carry out a review of all public sector electronic offerings in 2005 to determine whether continued public sector involvement is necessary, and if so, what form it should take.	HMT, Office of the e-Envoy		By Oct 2005

Organisational Capability				
No	**Conclusion**	**Lead responsibility**	**In support/ other key players**	**Deadline**
22	There should be six-monthly Cabinet meetings on e-government, the first of which should be held in October 2000, to fit alongside the e-business strategy process.			
23	The responsibilities of Permanent Secretaries and Ministers for ESD should be set out in their terms of appointment and should be taken into account in the assessment of their performance.			
24	The Civil Service Corporate Management Command should ensure that new arrangements for Civil Service pay encourage the delivery of the e-government agenda.	CSCM		

Organisational Capability				
No	Conclusion	Lead responsibility	In support/ other key players	Deadline
25	The Office of the e-Envoy should use its dual key responsibility for the release of ESD funding to ensure that new investment in ESD is used effectively. Release of funding should be conditional on satisfaction that plans put forward support the government's wider objectives for e-government and that departments have robust plans for realising efficiency gains.	Office of the e-Envoy	HMT	From Oct 2000 onwards
26	The e-Envoy should build on the prioritisation framework attached at Annex F to prioritise key strategic services across government, as described in section 7.3.	Office of the e-Envoy	Departments, agencies, LAs	From Oct 2000 onwards
27	All SDAs should include clear targets for the priority services to be brought online. For priority services, SDAs should include: • date for full implementation; • milestones, setting out what should be delivered by interim dates; and • as far as can be determined, a list of services they should 'join up' with, when and how.	HMT, departments, agencies, LAs	Office of the e-Envoy	From March 2001 onwards
28	Secretaries of State should consider the benefits of switching electronic delivery of government services to alternative service providers in the public, private and/or voluntary sectors where progress is slow. This might involve the creation of dot.gov start-ups: new entities to deliver cross-cutting and innovative services, or to compete with traditional delivery mechanisms.	Departments	Office of the e-Envoy	From December 2000 onwards
29	Local government should undertake to meet the 2005 target for 100% of services being available online.	DETR	LGA, IDeA	By December 2000
30	DETR should include an Information Age government performance indicator in the Best Value performance framework.	DETR		December 2000

Organisational Capability				
No	Conclusion	Lead responsibility	In support/ other key players	Deadline
31	DETR should be responsible for developing a strategy with the Office of the e-Envoy to achieve a step-change in the electronic delivery of local authority services; and DETR should consider the practicalities and resource implications of working through Government Offices in the Regions to ensure that: ● individual local authority e-strategies are approved in line with e-Envoy guidance and templates; ● regional network synergies in investments are identified; and ● central government funding for approved plans is targeted on areas where funding is most difficult and needs are the greatest.	GORs	DETR, LAs	From December 2000 onwards
32	IDeA should support the implementation of local e-government strategies. IDeA should continue to: ● develop national projects for local government; ● provide training and consultancy advice to local authorities developing their strategies; ● develop central–local pilots; and ● maintain links with the key central bodies. It should also support the dissemination and interpretation of best practice information and guidelines.	IDeA	DETR, LGA, LAs	By March 2001
33	There should be a small number of demonstrator product managers in the public, private and voluntary sectors, responsible for delivering joined-up content to key customer segments. The e-Envoy should identify four key customer segments and a lead department for each one. The product manager will then be responsible for developing joined-up electronic services to the identified customer group.	Lead departments and agencies	Supporting departments and agencies, e-Envoy	By Dec 2000 and then ongoing
34	An ESD incubator should be created within the e-Envoy's office as a home for start-up government ESD ventures. It will rapidly fund and develop, jointly with the private and voluntary sectors, prototypes from the public, the private and the voluntary sectors.	Office of the e-Envoy	Departments, agencies, LAs	By March 2001

Organisational Capability				
No	Conclusion	Lead responsibility	In support/ other key players	Deadline
35	The Civil Service Corporate Management Command in the Cabinet Office should commission a study to establish by December 2000 the current and potential future shortfalls in skills, and approaches to tackling them.	CSCM	Office of the e-Envoy, departments, agencies, LAs	By December 2000
36	The government should extend pilots of departmentally designed incentive schemes to the ESD units of all departments. Bonuses should be tightly linked to achievement of key targets.			
37	All Permanent Secretaries and board-level civil servants from key departments and agencies should attend the *leaders@e-government* course or a similar course. CMPS should consider what adjustments should be made to the course to make it suitable for each board by December 2000. CMPS should also consider ways of raising awareness of the possibilities and implications of new technology amongst all those involved in service delivery.	CMPS	Permanent Secretaries, board members, from departments and main agencies	By Dec 2001
38	Establish an e-business unit within each major service delivery organisation, responsible for the front-end delivery of electronic services by December 2000.	Departments, agencies, LAs	Office of the e-Envoy	By March 2001
39	All departments and agencies must implement mandatory standards developed and agreed as part of the e-government strategy.	Departments, agencies, LAs	Office of the e-Envoy	From Dec 2000 onwards
40	There must be clear organisational separation between those responsible for technical standards setting, infrastructure development and the operation of common services related to the UK o03	Office of the e-Envoy		From Oct 2000 onwards
41	The e-Envoy and HMT should agree arrangements to establish a research function to gather and disseminate online data on ESD and e-government by autumn 2000. The function should be in place by March 2001. CMPS should work with the Office of the e-Envoy to create a knowledge pool for e-government from March 2001.	Office of the e-Envoy	CMPS	From Dec 2000 onwards

Organisational Capability				
No	Conclusion	Lead responsibility	In support/ other key players	Deadline
42	HM Treasury should commission a study to examine the people and asset implications of ESD, working jointly with CSCM on the people aspects and looking by service provider at: the likely timing of changes; the number of people affected; the likely need for and distributions of physical networks. The study should look across the range of government activity with a view to optimising the physical network of assets to provide services for all as efficiently as possible.	HMT, CSCM	IAGCs	By June 2001
43	The e-Government Minister and e-Envoy should together champion implementation of this report as part of the overall e-government strategy. The e-Envoy should have overall responsibility for monitoring progress towards this report's recommendations and should report on progress as part of his annual report to the Prime Minister. He should work with Information Age Champions who will be responsible for implementation in their own departments and should report on progress in their e-business strategies.	E-Government Minister, E-Envoy	E-Ministers	Oct 2000

ANNEX A: THE ROLE OF THE PERFORMANCE AND INNOVATION UNIT

1. The creation of the Performance and Innovation Unit (PIU) was announced by the Prime Minister on 28 July 1998 as part of the changes following a review of the effectiveness of the centre of government by the Cabinet Secretary, Sir Richard Wilson. The PIU's aim is to improve the capacity of government to address strategic, cross-cutting issues and promote innovation in the development of policy and in the delivery of the government's objectives. The PIU is part of the drive for better, more joined-up government. It acts as a resource for the whole of government, tackling issues that cross public sector institutional boundaries on a project basis.

2. The unit's acting Director is Jamie Rentoul and it reports direct to the Prime Minister through Sir Richard Wilson. A small central team helps recommend project subjects, and manages the unit's work. Work on projects is carried out by small teams assembled both from inside and outside government. About half of the current project team staff are drawn from outside Whitehall, including from private sector consultants, think tanks, NGOs, academia and local government.

3. Comprehensive information about other PIU projects can be found on the PIU's web site at http://www.cabinet-office.gov.uk/innovation.

ANNEX B: THE PROJECT TEAM, SPONSOR MINISTER AND ADVISORY GROUP

1. This report was prepared by a multi-disciplinary team guided by a ministerial sponsor and an advisory group with government and non-government representation.

The team

2. The team comprised:

- Andrew Adamyk – on secondment from Microsoft

- Jon Ainger – on secondment from Andersen Consulting

- John Clark – project team leader, independent economics and strategy consultant

- Jon Coles – on secondment from Department for Education and Employment

- Tom Dibble – moved from Gould Greenberg Carville/NOP

- Nicholas Lodge – on secondment, part time, from the ITC

- Paul O'Sullivan – permanent member of PIU

- Rachel Phillipson – government economist, PIU.

3. The team was assisted by Tasnim Zavery – PIU, Alistair Boon – PIU, Stephen Hale – PIU, and Anwar Choudhury – Central IT Unit, Cabinet Office.

Sponsor minister

4. The work of all PIU teams is overseen by a sponsor minister, in this case Michael Wills MP, Parliamentary Under Secretary of State at the DfEE.

Advisory group

5. In addition, the team was greatly assisted by being able to draw on the experience and advice of its advisory group. The team benefited from an extensive process of consultation and review with the advisory group throughout the project. The group, chaired by Michael Wills, comprised:

- Stephen Aldridge – Chief Economist, PIU

- Alex Allan – e-Envoy

- Jonathan Bloomer, Keith Bedell-Pearce – Prudential – Egg

- Anna Bradley – National Consumer Council

- David Cooke – Central IT Unit

- Paul Foley – De Montfort University

- Patricia Hewitt – e-Commerce Minister, Department for Trade and Industry

- Anne Lambert – OFTEL

- Ian McCartney – e-Government Minister, Cabinet Office

- James Purnell – No 10 Policy Unit

- Barry Quirk – Chief Executive Officer, London Borough of Lewisham

- Jamie Rentoul – PIU

- Steve Robson – HM Treasury.

6. The team gratefully acknowledges the advice and time given by each advisory group member. The team also acknowledges with thanks the contributions of all who offered advice, participated in meetings or working groups, or assisted in any way.

1. The project methodology was rooted in an evidence based and outward-looking approach. The project team undertook an extensive process of data gathering, research and consultation.

2. **Review of existing work:** A vast amount of research had already been undertaken on ICT and e-government, upon which the project team was able to draw. This included:

- the PIU report *e-commerce@itsbest.uk*;

- CITU's work on guidelines and frameworks, the e-government strategy and international benchmarking;

- consumer research through the People's Panel, such as research on citizens' demand for 24x7 delivery, consumer research on change of address and branding;

- reports such as 'view from a queue' and the LSE report for the NAO *Government on the Web*; and

- a large amount of research by private sector and academic organisations.

3. Details of these and all the other reports can be found in annex F.

4. **Extensive process of meetings:** across the public, voluntary and private sectors. A list of those we contacted is given in annex E. The work also greatly benefited from the assistance of the project advisory group (see annex B), two away-days organised by BT and Granada and a number of conferences and seminars which we attended.

5. **Research:** The team undertook research, commissioned market research and worked closely with a number of ongoing research exercises:

- a market research company, MORI, was commissioned to undertake qualitative research of consumers' views and preferences for electronic service delivery by government through focus groups, Omnibus quantitative research and the MORI e-panel. A report of this research is given in annex D;

- the team assisted MORI with their research on a report for BT on the state of readiness for e-government, across citizens and the public sector;

- the team worked closely with HM Treasury in their work on the knowledge economy review (one of the cross-cutting reviews which formed part of the 2000 Spending Review);

- international research – the team undertook a series of fact-finding trips to the Netherlands, Sweden, Finland and the US, and conducted video-conferences with Australia and Singapore. The team liaised with CITU and the CCTA, who were researching for international benchmarking purposes at the same time.

Note: One point that should be borne in mind when viewing the international evidence cited in the report is that the different public sector organisations in the different countries investigated have very different starting points, depending on the attitudes of the public and the history of government organisation. For example:

Country	Starting point	
	Citizens	**Government**
United States (Washington State)	Live in a hi-tech state, the home of Microsoft. Culturally they are ready for and even expect far-reaching ESD.	Because government was so dysfunctional 13 years ago all the technical pieces for effective ESD were put together early on.
United States (Chicago)	Used to a single number through which to contact government (311), so understood the single web presence of Chicago Online. Also, Chicago shares in the rest of the US's high levels of Internet penetration – 45% and growing by February 2000 (NUA Internet Surveys).	Chicago had already developed a single call centre, which all departments were plugged into. The Chicago portal on the Internet was seen as an extension of that and, therefore, more easily accepted.
Netherlands	Accept a high degree of information/data sharing within government.	"The Dutch [culture] of consensus government stresses co-operation and knowledge interchange…high degree of information sharing…and large national databases."[1]
Singapore	Used to a unique identifier and to prescriptive government. "I have had a number since the day I was born and as I grew up the number became part of me."[2]	From the early 1980s Singapore has been building systems with common items that could be used across government (e.g. name, address, etc). Historically integrated government environment – technically and culturally – in which departments and agencies willingly act on orders from the centre. ESD flows on quite naturally from this.
Sweden	Massive Internet penetration – over 50% by March 1999 (Statskontoret/SCB: Statistik Arsbok 1999). High degree of computer literacy taught in schools. Many workers benefit from fact that home computer is allowed from companies tax free.	Government agencies have scope to be radical and to experiment. Ministers are quite hands off. Once money is approved agencies set their own policies.[3]
Australia	Government is widely recognised as a driver of the use of digital technologies. "In some cases government can be seen to be leading the market as well as following it."[4]	"The idea of the public sector being at the forefront of technology is regarded more seriously in Australia than in the UK", even though the stated way forward is to be market led.[5]

[1] *E-government. An international study of online government* commissioned by Cable and Wireless Communcations. Kate Oakley. February 2000. p.35.

[2] Interview by ESD Team with members of the Singapore Infocomm Development Authority. 22 May 2000.

[3] Interview with Olov Osterber of the Statskontoret, Sweden. 8 May 2000.

[4] *E-government. An international study of online government* commissioned by Cable and Wireless Communcations. Kate Oakley. February 2000. p.13.

[5] *E-government. An international study of online government* commissioned by Cable and Wireless Communcations. Kate Oakley. February 2000. p.13.

6. **Investigation:** by the team of a range of web-sites, run by departments, local government, the private sector and international organisations.

7. **Consultation exercise:** The team sought views from the public through a policy review exercise on the No 10 web-site,[6] consulted departments and other organisations and obtained feedback from public sector organisations on our emerging conclusions.

8. In undertaking the analysis, particular account was taken of the implications for the government's existing broader commitments. These include those on public expenditure and the importance of understanding the disproportionate impact policies can have on some sectors of society, including women, ethnic minorities and the elderly. Indeed, ESD has the potential, given the policies to ensure access and take-up, to dramatically improve the participation of under-represented groups within local communities and government's decision making.

[6]   See www.number-10.gov.uk/default.asp?PageID=949

ANNEX D: ORGANISATIONS CONSULTED

4Ps

Analysys

Andersen Consulting

Andersen Consulting research facility – Northbrook, Illinois

Audit Commission

BBC Online

Better Information Age Government

BREMA

Brighton and Hove Council

Bristol Council

British Telecom

Boston City, Management and Information Services

Cabinet Office

Cable & Wireless

Central Computer and Telecommunications Agency

Central IT Unit

CISCO

City of Chicago – Business and Information Services

Confederation of British Industry

Consensus Research

Consumer Association

Council for Excellence in Government

Customs and Excise

Data Protection

De Montfort University

Deloitte and Touche

Department for Culture, Media and Sport

Department for Education and Employment

Department for Social Security

Department of Environment, Transport and the Regions

Department of Health

Department of Information Services, Washington

Department of Trade and Industry

Digital Citizen

Edentity

EDS

E-Envoy's office

EMC Computer Systems

Employment Service

Ezgov.com

Fabian Society

Federation of IT in Local Government

First Direct

First Software

GovWorks, Inc

Granada

Granada Media

Henley Centre

HM Treasury

HMT, PFI taskforce

Home Office

IBM

ICL

Improvement and Development Agency

Impower

Infocomm Development Authority of Singapore

Information Society Initiative

Inland Revenue

Institute for Public Policy Research

Kable

Kent County Council

Knowsley Council

Lewisham Council

Liverpool County Council

Local Government Association

London School of Economics

Lord Chancellor's Department

Marconi

Meridian TV

Minister for e-Government, Cabinet Office

Ministry of Finance, Finland

Ministry of the Interior, Netherlands

MORI

N M Rothschild & Sons Limited

National Consumer Council

National Partnership for Reinventing Government – Washington DC

Netgov.com

New Local Government Network

Newham Council

No 10 Downing Street

NTL

Office for Intergovernmental Solutions, Washington DC

Office of Government Commerce

Office of Government Online, Australia

Ondigital

Open

OSI

PA Consulting Group

Partnerships UK

Passport Agency

PKI Overheid, Netherlands

Powys Council

Prison Service

Prudential

Real Time

Saga

SAT Steering Group

Science Policy Research Unit, Sussex University

Smile

Social Exclusion Unit

Statskontoret, Sweden

Suffolk Council

Telematics Development Trust

United Broadcasting

University College London

University of Leeds, Research Centre for Future Communications Studies

Upmystreet.com

Washington State, Department of Information Services

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ANNEX F: E-BUSINESS PLANNING AND PRIORITISATION FRAMEWORK

e-Business planning

1. Two critical elements form the backbone of e-business planning:

a. e-business strategy development (the overall e-business plan for the organisation as a whole);

b. e-business case development (for individual ESD projects).

e-Business strategy development (overall organisation plan)

2. CITU, as an annex to their *e-government strategy document*, have created a set of *implementation guidelines* for the development of organisational e-business strategies (there are separate guidelines for Local Government). The e-business strategies are key to helping departments, agencies and local authorities work out and explain how they intend to converge with government-wide standards and meet the overall target, and will be completed by October 2000.

3. Ultimately electronic service delivery should be seen as a core part of the overall business strategy for any organisation, and e-strategy should form a seamless part of overall strategy. However, there is merit in the short term for government to 'force the pace' by requiring all government organisations to go through the planning and thought processes that e-strategy development implies. But these strategies need to address explicitly, service by service, whether electronic service delivery will substitute or complement traditional channels for delivering services. They need also to recognise that it is important to

appraise and compare the costs and benefits of new investment in both electronic and traditional service delivery channels. At the margin, the case for continued investment in many traditional channels for delivering services may remain strong.

4. Below, we have included more detail on e-business strategy development.

e-Business case development (individual projects)

5. Business cases are the basic building block allowing companies to make investment decisions, venture capital houses to decide which new idea to back, and governments to allocate scarce resources. There are a number of approaches which can be used to help investment decision making; but in large organisations there is merit in a single, agreed approach to enable comparisons to be made on a like for like basis.

6. Government already has in place some tools to enable the development of business cases. At a general level, HM Treasury's *Appraisal and Evaluation in Central Government* provides advice and guidance covering many major aspects of public sector investment decisions. The recent *Major IT Projects Review* includes a *Business Case Model* at Annex D, which details the management steps and checkpoints necessary to create a total cost of ownership approach to evaluating IT investment.

7. This annex is not intended to duplicate these pieces of guidance; instead it is intended to address the current gap which exists for tools to assess the investment in

front-line electronic delivery of services. In terms of key issues, uncertainty and rapid change, this area is more comparable with the 'new economy' marketplace than the marketplace for back-office IT systems, and below we include some guidance for government officials based around lessons learned from the 'new economy' private sector.

Key issues to consider during the planning process

8. In this section we include detail on the key issues to be borne in mind during e-business strategy development for organisations, and provide an e-business case template for individual ESD projects.

e-Business strategy development

- Understanding your customers' needs

- Working with the private and voluntary sectors

- Meeting the 2005 target: Create transition plan

- Planning for uncertainty

Understanding your customers' needs

9. For outcomes to be customer focused, a clear understanding of who your main customer groups are is crucial not only to defining your take-up targets but also to examining the possibilities for joined-up service delivery. The e-business strategy should include:

- definition of who your main customer groups are;

- an analysis of the likelihood of different groups of customers (customer segments) accessing services electronically;

- the results of working with other government organisations to understand where you and they have common customer groups; and

- future plans for joint working and delivery of services.

Working with the private and voluntary sectors

10. Working with the private and voluntary sectors will be a fundamental part of the implementation of electronic government – both in terms of getting services online, and (see chapter 7) in the competitive delivery of electronic government services. Crucial factors to consider will include:

- the required extent and form of government intervention – some services will be delivered by the private and voluntary sectors and will require no government involvement. In other cases joint ventures or other partnerships will be required. This needs carefully to be established, case by case, with the e-Envoy;

- examining any existing IT contracts to ensure that anything crucial to 'front end' delivery is not restricted by Intellectual Property Rights (IPR) or other contractual restrictions, so that access to the market for delivering e-government services by a range of providers is not constrained. If restrictions are found to exist, officials should take the following steps:

  – inform the e-Envoy's office, and the Office of Government Commerce

  – ensure that the key issues are included in the next negotiation round with the IT provider (for example refresh clauses, or full scale recontracting).

- ensuring that IT contracts currently being negotiated and in future planning do not have provisions which could restrict access to the market for the electronic delivery of government services by a range of providers. Issues to avoid include:

  – IPR over software (e.g. forms, or processes, which would be need to be used by third parties to carry out government transactions); and

  – any exclusivity in front-end service delivery.

Meeting the 2005 target: Create transition plan

11. Developing an explicit transition plan will be crucial to the organisation's ability to manage the task of meeting the 2005 target for all services to be online. Key elements of this transition plan should include:

- appointing a senior individual to be responsible for meeting the target;

- online take-up targets, by service;

- plans for rationalising and realising savings from traditional service delivery channels – to include:

  – plans to drive take-up of online services (marketing plans, access plans, etc);

  – timing and staging of switchover and/or switch-off;

  – planning the decommissioning of traditional channels – buildings and people.

Planning for uncertainty

12. The one certain thing about e-government is that the future cannot be predicted with certainty. Innovation in technology and in business models will mean sensible decisions taken today could well be redundant in 6 months. This has the following implications for the planning process:

- the e-business strategy should be reviewed every 6 months (this is 'industry' best practice, see *Washington State's Digital Government Plan*, and the *eNorway Action Plan*);

- build in regular check points and milestones, and be prepared to cope with many iterations of project plans; and

- project plans and targets should use scenario planning to project alternative (at least 4) outcomes; these should be weighted by probability to provide a best guess outcome.

13. The next section discusses the basic building block of business planning: the business case.

ESD business case template for individual projects

Business case template:[7]

14. The business case needs to have the following characteristics:

- it must grab the attention of the funding body, starting with an excellent executive summary which explains concept and convinces them to read on;

- it must be a useful management tool;

- it must be seen as a condition for obtaining funding; and

- it must include clearly defined goals, objectives and milestones.

[7] This section owes much to the 1999 PricewaterhouseCoopers pamphlet *Three Keys to Obtaining Venture Capital,* and to the McKinsey Quarterly 2000 article *Valuing Dot-Coms*.

Context – key lessons to be learned from the private sector

Public sector investment is different in many respects to private sector investment. This section does not lift the private sector model wholesale, but instead seeks to draw lessons from the approach taken in the private sector, and apply them where appropriate to the public sector. It is specifically addressed at projects looking to deliver front-line electronic services.

There are two key lessons which the public sector can usefully draw on:

- staged funding mechanisms to reduce risk and encourage high performance; and

- the vital importance of having the right management team in place before seeking funding.

It is important to note that adopting some elements of the private sector approach does not require the venture to be profit making; the social dimension of government interventions can be taken into account using the same basic analytical techniques.

Staged funding: A key aspect of the private sector approach to risk management of venture capital is that money is given in tranches, and is dependent on the project achieving or bettering its agreed targets. Many dot.com failures occur because they have been unable to obtain second, third or fourth round funding. This model could easily be replicated in the public sector, and would reduce the risk to taxpayers of project failure.

Management team: A good business case is seen by many venture capitalists as merely a 'qualifier' for funding. In fact, the final decision is made on the credibility of the core management team, their expertise, their ability to demonstrate previous experience, and answer difficult questions about the proposal. Without an excellent management team who look like they can execute the plan, no funding will be forthcoming, however good the proposal. This is also true within government. Government organisations wishing to succeed in raising money must put people with the right background and expertise on the management team, which pitches for the funding.

15. The business case should contain the following key sections:

- Executive summary
- Project description
- Rationale
- Organisation and management
- Customer analysis
- Marketing
- Funds requested and intended use

16. More details are set out below.

Executive summary

17. The executive summary should be just 2-3 pages long, and only include vital information. The vital information is:

- project overview (to sum up the basic concept and aims);

- management team (to demonstrate ability to deliver);

- product/service (what is the core product/service, has it been developed, plans for future innovation);

- market/customer (who are your customers, do they want/need the service, are there any 'competitors' in existence);

- role of private and voluntary sectors in the project;

- milestones completed to date (if any);

- statement on future plans; and

- summary of costs, benefits and overall assessment of project.

Project description

18. This section should describe the core business of the project – what service or 'product' is being put online, the status of the service or product and future development plans.

Rationale

19. This section should describe why the project is unique, and why government should be funding this. It should cover the following:

- description of competitors: private sector, voluntary sector, and other government services;

- rationale for government intervention – what is the case for government funding of the project in whole or in part, particularly if there are private or voluntary sector bodies providing the service or who could do so in the future?; and

- joined-upness: Are there any other public sector providers you could link up with:

  – technologically;

  – because of the nature of the product or service; or

  – because the target groups overlap.

Organisation and management

20. This section should provide details of key management team members and CVs with

evidence of track record of delivering previous projects. The inability to demonstrate a capacity to deliver to plan, and/or give confidence to the financial providers that the project is possible, is a 'deal breaker'.

21. It should include details on the organisation required to deliver the project, and the plans for coping with potentially massive take-up (there have been a number of high profile private sector web-site failures due to the inability to cope with the higher than expected numbers of visitors).

- Need for rapid scalability

- Are you prepared for rapid growth?

- Can you deliver the skill requirements?

Customer analysis

22. This section should describe the current and future demand for the service or product, and profile expected customer behaviour.

- Is there latent unmet demand?

- Profile of customers, by type, to allow better estimates of take-up and need

- Estimates of current and projected growth rates

- How will you measure customer satisfaction?

Marketing

23. This section should explain the 'go to market' strategy, with a clear explanation of how the service or product will be marketed, priced (if appropriate), distributed (if necessary), etc.

- Marketing plan

- Pricing

- Distribution channels

- Promotion

Funds requested and intended use

24. This section should provide the fundamental underpinning to the business case. The purpose is straightforward: to provide information on a) the costs and b) the benefits of the project, over the lifetime of the project. So far as possible these should be expressed in monetary terms and reduced to a discounted NPV. But many of the social returns may be unquantifiable in monetary terms. So far as possible these should be assessed using non-monetary indicators in order to arrive at an overall assessment of the net social benefits of going ahead with the project.

25. Standard business cases in the private sector will include both the basic financial statements *and* the NPV calculation. Since the basic financial data should be generated in order to create the NPV calculation, these figures should be available and the financial statements should be included. The key financial elements are:

- income statement (to detail the costs (expenses) and revenue (if appropriate) of the project, and the net income);

- balance sheet (to detail the assets and liabilities of the project);

- cash flow statement (to detail the cash inflows and outflows, and provide a summary of end-of-year cash position).

Scenario planning for uncertainty

26. A key aspect of the development of an e-business strategy or business case is the projection of many variables into the future. This is extremely difficult in the electronic service delivery world, because of very high levels of change and rapid technology development.

27. This means that some form of scenario planning is appropriate.[8] This requires the business case to define the three or four key metrics (for example, ultimate penetration rates, transaction costs, etc) which will shape the project over its lifetime.

28. The next step is to take a fixed point in the future, when customer behaviour has reached relative stability (say 10 years), and build four different possible outcomes based on different values of the key metrics (ranging from very pessimistic to very optimistic).

29. The business case should then assess the possible outcomes under each of these four scenarios, and assign probabilities to each one. For example, for a set of four possible outcomes, these could be 10%, 30%, 50% and 10% (totalling 100%). Of course the weighting given to each scenario is crucial, but this is a technique designed only to deal with uncertainty, not eliminate it. A view can then be taken of the central case for the most likely outcome of the project.

8   Approach is taken from *Valuing dot-coms*: McKinsey Quarterly 2000.
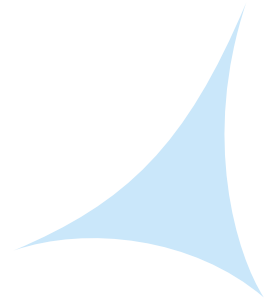
Prioritisation framework

30. The preceding sections have set out how to work up a business case for an ESD option. However, in a world constrained by the availability of people with the necessary skills and expertise, and limited funding, choices need to be made between potential ESD projects.

31. Ideally, the benefits, costs and timing of electronic delivery projects would be easily quantifiable and decisions could be made on the basis of greatest net present value. In practice, the information needed to do this is frequently absent or it will only be possible to reach qualitative judgements because, for example, many of the benefits of ESD are unquantifiable, either in monetary or any other terms. In these circumstances, in order to be able to prioritise between different potential ESD projects, it is necessary to establish criteria by which to compare projects and to make selections.

Establish criteria

32. The key criteria for selecting between projects are the size and timing of costs and benefits. These are illustrated in the diagram below, but their significance will vary from project to project. For example, in many cases electronic service delivery will ultimately be a substitute for traditional channels of service delivery and ESD will result in the scaling back of traditional delivery mechanisms. In these cases, the resulting potential cost savings will figure prominently in the decision-making process. In other cases, ESD may complement traditional channels and this element will therefore not feature at all.

Figure 1: The key criteria for prioritising potential ESD projects
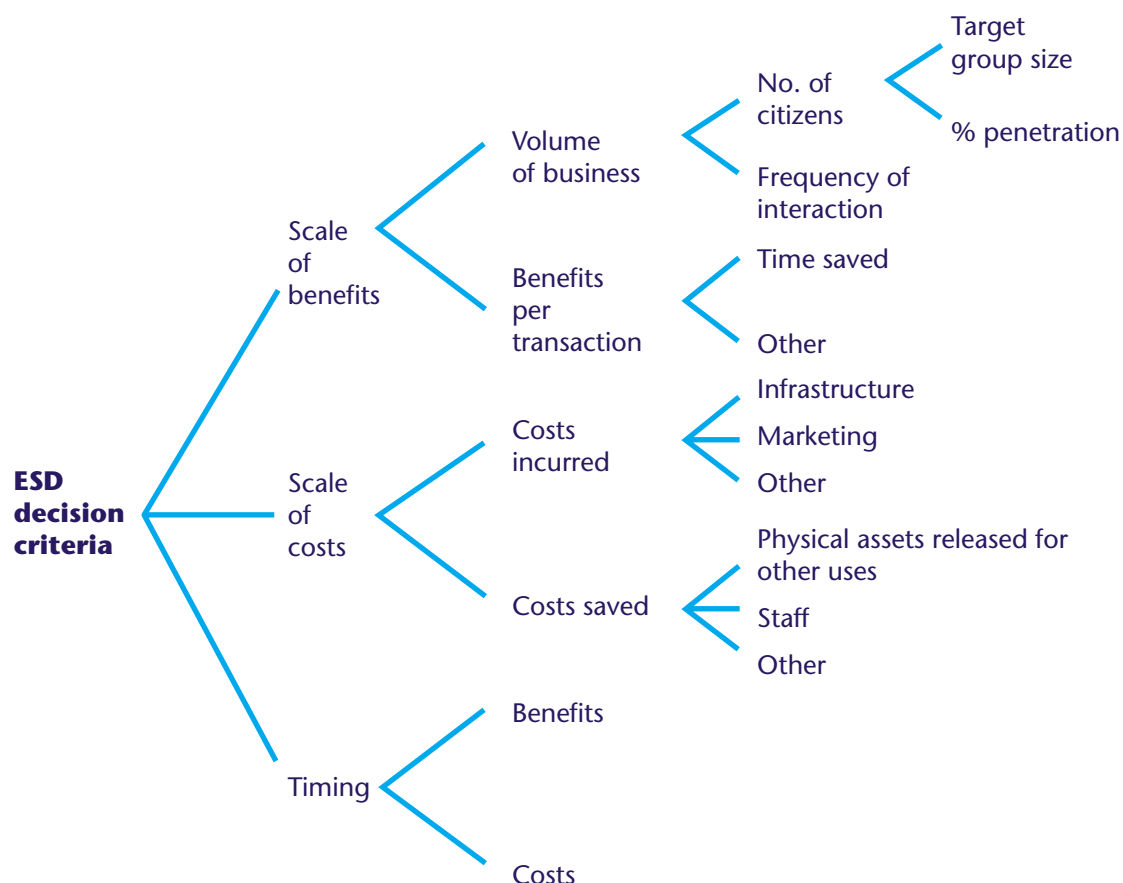
33. Many of these criteria will have been set out in the business case. However, there are complex linkages between them, which need to be assessed as part of the prioritisation process. For example, the scale of benefits will depend on factors such as the volume of business, which in turn will depend on how many people will use the service and how often. The number of users will depend on how big the target audience is (for example all students) and the predicted penetration of the electronic service with this audience. Audience penetration will depend on levels of marketing expenditure – a major determinant of costs. These inter-relationships need to be set out in the business case.

34. Further, many of the criteria may not be susceptible to 'hard analysis'. Quantitative evidence should be used wherever they are reliable, consistent and relevant. However, there is little point in using 'hard data' simply because they seem to be objective or are easy to obtain. Typically, hard data on costs will be easier to obtain than benefits. This does not mean that costs are more important than benefits. For example, it may be difficult fully to quantify the benefits to the unemployed of using an online job search rather than a job centre. It is relatively easy, on the other hand, to calculate the costs of setting up an online jobs site.

35. Having determined the key decision criteria, a mechanism is then needed for prioritising projects and making selections.

Selection

36. Decision making is rarely easy, particularly in the complex world of electronic service delivery, where trade-offs between widely differing projects will inevitably have to be made. However, such decisions must be made, and made quickly, if UK government ESD is not to lag behind citizens' expectations and international rivals.

37. In selecting between different ESD options there are three key steps:

- *eliminating manifestly poor projects.* Some projects will be worse than others against all criteria, i.e. they offer lower benefits, have higher costs and take longer to implement. These should be rejected;

- *eliminating projects which offer no advantages over alternatives.* In other instances project A may be better than project B on some criteria, and no worse on others. In these circumstances, project A is superior to B and the latter can be rejected;

- *making trade-offs.* In most instances, however, project A will be better than project B on some decision criteria, but worse on others. Reaching a decision then requires trade-offs to be made. You need to give up something on one criterion to achieve more on another. **Consequence tables** are a good way of going about making these trade-offs in a rigorous and systematic way.[9]

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[9] See *Smart Choices* by Hammond, Keeney & Raiffa, HBS Press. 1999.

An example

38. Consider the hypothetical consequences table for the four ESD options below. For ease of explanation, a limited number of decision criteria are adopted.

ESD Options				
Decision criteria:	**Option 1**	**Option 2**	**Option 3**	**Option 4**
Size of market/Maximum potential no. of users	15	15	15	10
Penetration forecast (%)	10	10	10	5
Time saved per transaction (mins)	60	90	60	15
Set-up cost (£m)	3	3	4	7
Ongoing costs (£000 per month)	30	30	30	50
Costs savings (£m p.a)	40	30	40	–
Speed of implementation	fast	fast	medium	slow

39. From this table it is clear that Option 4 is worse than Option 1 along all criteria. It should therefore go to the bottom of the list. Option 3 is as good as Option 1 for most criteria except speed and set-up cost. Option 1 is therefore superior to Option 3.

40. However, trade-offs are required to choose between Options 1 and 2. This decision does not depend on those criteria which have an equal rating for the two options. The consequences table therefore reduces to:

ESD Options		
Decision criteria:	**Option 1**	**Option 2**
Time saved per transaction (mins)	60	90
Costs savings (£m p.a)	40	30

41. The decision thus boils down to whether the cost savings to the government service provider from Option 1 outweigh the time savings to the citizen from Option 2. To make this trade-off the key step is to assess how the cost savings in (say) Option 2 vary with the time savings. It might, for example, be the case that, if the investment spending underpinning Option 2 was re-deployed to give more emphasis to cost savings, the time saving per transaction would fall to 70 minutes whilst the cost saving to government would rise to £40m p.a.

42. The consequences table would then look like:

ESD Options		
Decision criteria:	**Option 1**	**Option 2**
Time saved per transaction (mins)	60	70
Costs savings (£m p.a)	40	40

43. On this basis, Option 2 should take priority over Option 1 since, potentially, it offers equal cost savings to government service providers but greater time savings per transaction for citizens.

44. Clearly, the key and most difficult part of this prioritisation process is making trade-offs between the decision criteria. To make selections this has to be done, but it is possible to do so in a relatively rigorous way even if a degree of judgement is required. In the above example the final priority ranking is: Option 2, Option 1, Option 3, Option 4.

ANNEX G: GLOSSARY

ADSL   Asymmetric Digital Subscriber Line, one way of getting broadband Internet access. http://www.adsl.com/

ATMs   Automated Teller Machines, also know as ''hole in the wall'' cash machines.

B2B   Business to Business.

B2C   Business to Consumer.

BASDA   Business and Accounting Software Developers Association. http://www.basda.org/

CCTA   Central Computer and Telecommunications Agency. http://www.ccta.gov.uk/

CEO   Chief Executive Officer.

CERN   European Organisation for Nuclear Research. http://cern.web.cern.ch/CERN/

CITU   Central Information Technology Unit, part of the Cabinet Office. http://www.citu.gov.uk/

CMF   Capital Modernisation Fund. http://www.hm-treasury.gov.uk/docs/1999/capmfbidg.html

DCMS   Department of Culture, Media and Sport. http://www.culture.gov.uk/

Demos   Independent UK think tank. http://www.demos.co.uk/

DETR   Department of the Environment, Transport and the Regions. http://www.detr.gov.uk/

DfEE   Department for Education and Employment. http://www.dfee.gov.uk/

Dot.com   Label for start-up companies whose business predominantly involves the Internet to deliver services or goods.

DSS   Department of Social Security. http://www.dss.gov.uk/

DTI   Department of Trade and Industry. http://www.dti.gov.uk/

DTV   Digital Television.

E-Envoy   Government office with current responsibility for making the UK the best place in the world for e-commerce. http://www.e-envoy.gov.uk/

ESD   Electronic Service Delivery.

G2B   Government to Business.

G2C   Government to Citizen.

G2G   Government to Government.

GDP   Gross Domestic Product.

GGP   Government General Practioner.

HMCE   Her Majesty's Customs and Excise. http://www.hmce.gov.uk/

HMSO   Her Majesty's Stationery Office. http://www.hmso.gov.uk/

HMT   Her Majesty's Treasury. http://www.hmt.gov.uk/

HTML   Hypertext Mark-up Language. http://www.w3.org/MarkUp/

HTTP   Hypertext Transfer Protocol. http://www.w3.org/Protocols/

IAGC   Information Age Government Champions. http://www.iagchampions.gov.uk/

ICT   Information and Communication Technology.

IDA   Infocomm Development Authority in Singapore. http://www.ida.gov.sg/

IDeA   Improvement and Development Agency for Local Government.
            http://www.idea.gov.uk/

IPR   Intellectual Property Rights.

IR   Inland Revenue. http://www.inlandrevenue.gov.uk/

ISB   Invest to Save Budget. http://www.cabinet-office.gov.uk/eeg/1999/isb.htm

ISP   Internet Service Provider.

IT   Information Technology.

LG   Local Government.

LGA   Local Government Association. http://www.lga.gov.uk/

MAXI   Government ESD service from Victoria, Australia. http://www.maxi.com.au/

NAO   National Audit Office. http://www.nao.gov.uk/

NCC   National Consumer Council. http://www.ncc.org.uk/

NGO   Non-Governmental Organisation.

NHS   National Health Service. http://www.nhs.uk/

NIC   National Information Consortium in United States. http://www.nicusa.com/

NLIS   National Land Information Services. http://www.nlis.org.uk/

NMT   New Media Team, part of CITU.
            http://www.iagchampions.gov.uk/guidelines/websites/websites.txt

OECD   Organisation for Economic Co-operation and Development. http://www.oecd.org/

Ofsted   Office for Standards in Education. http://www.ofsted.gov.uk/

Oftel   Office of Telecommunications, the regulator for the UK telecoms industry.
            http://www.oftel.gov.uk/

ONE   Government initiative testing fundamental changes to the Welfare State.
            http://www.one.gov.uk/

PIN   Personal Identification Number.

PAT   Policy Action Team on deprived urban areas. http://www.pat15.org.uk/

PFI   Private Finance Initiative. http://www.pfi-online.com/

PIU   Performance and Innovation Unit. http://www.cabinet-office.gov.uk/innovation/

PKI   Public Key Infrastructure.

PPP   Public Private Partnership.

SDA   Service Delivery Agreement.

SME   Small or Medium-sized Enterprise.

SOCITM   Society of Information Technology Management. http://www.socitm.gov.uk/

STB   Set Top Box which sits on top of (or often under) a television set.

UMTS   Universal Mobile Telecommunications System, also called ''third generation''
            or ''3G'' mobile telephony. http://www.umts-forum.org/

URL   Uniform Resource Locator, or ''web address''.

WAP   Wireless Application Protocol. http://www.wapforum.org/

XML   eXtensible Mark-up Language. http://www.w3.org/XML/