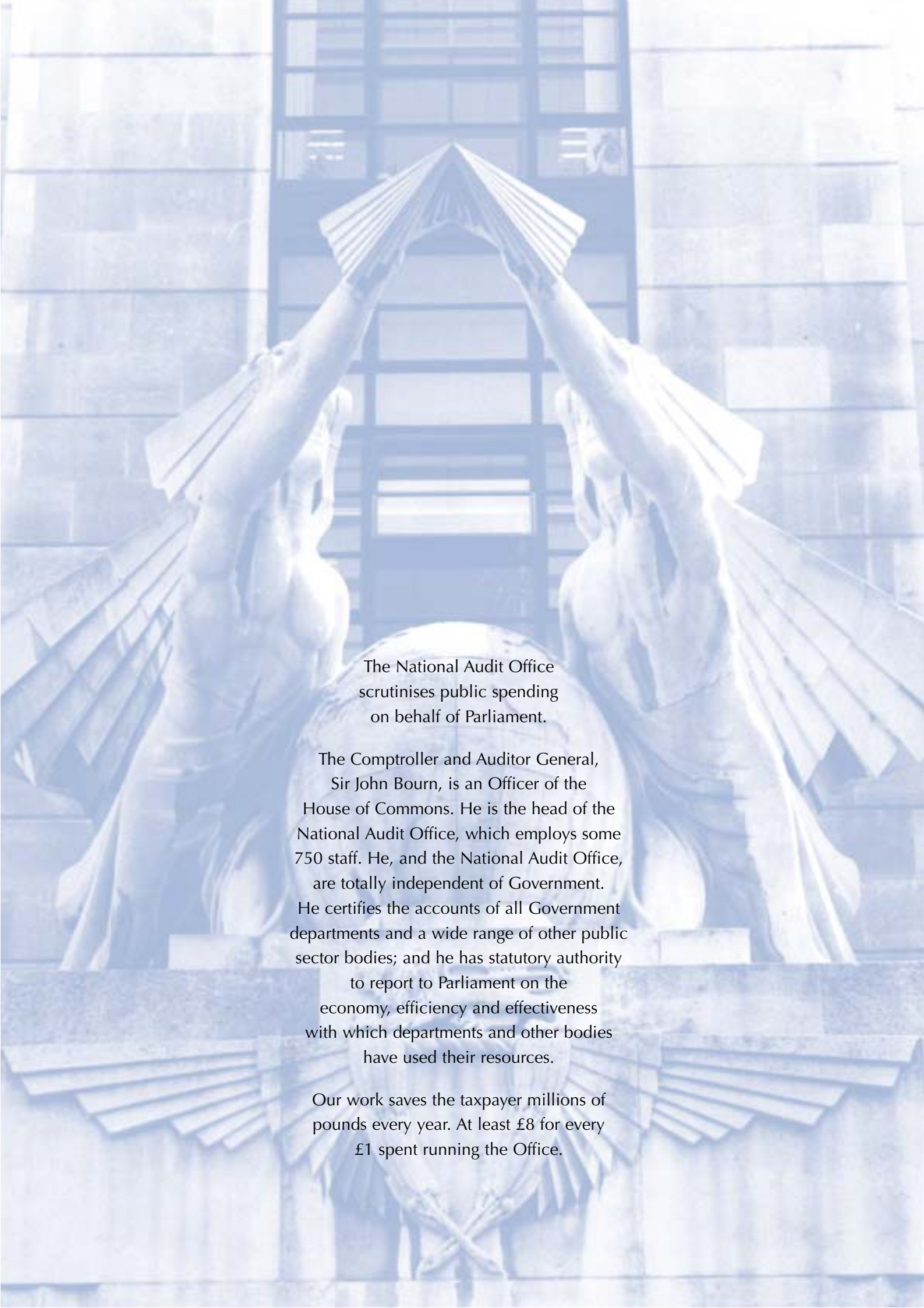
NATIONAL AUDIT OFFICE

Better Public Services through e-government:

Case Studies in support to Better Public Services through e-government

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL
HC 704-II Session 2001-2002: 4 April 2002



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John Bourn
Comptroller and Auditor General

National Audit Office
8 March 2002

The NAO study team comprised Michael Whitehouse, Nick Lacy, Geraldine Barker and Dave Clark. We commissioned a paper on the cultural barriers to e-government from Professor Helen Margetts (University College London) and Professor Patrick Dunleavy (London School of Economics and Political Science). We also convened an expert panel to advise us throughout and it comprised:

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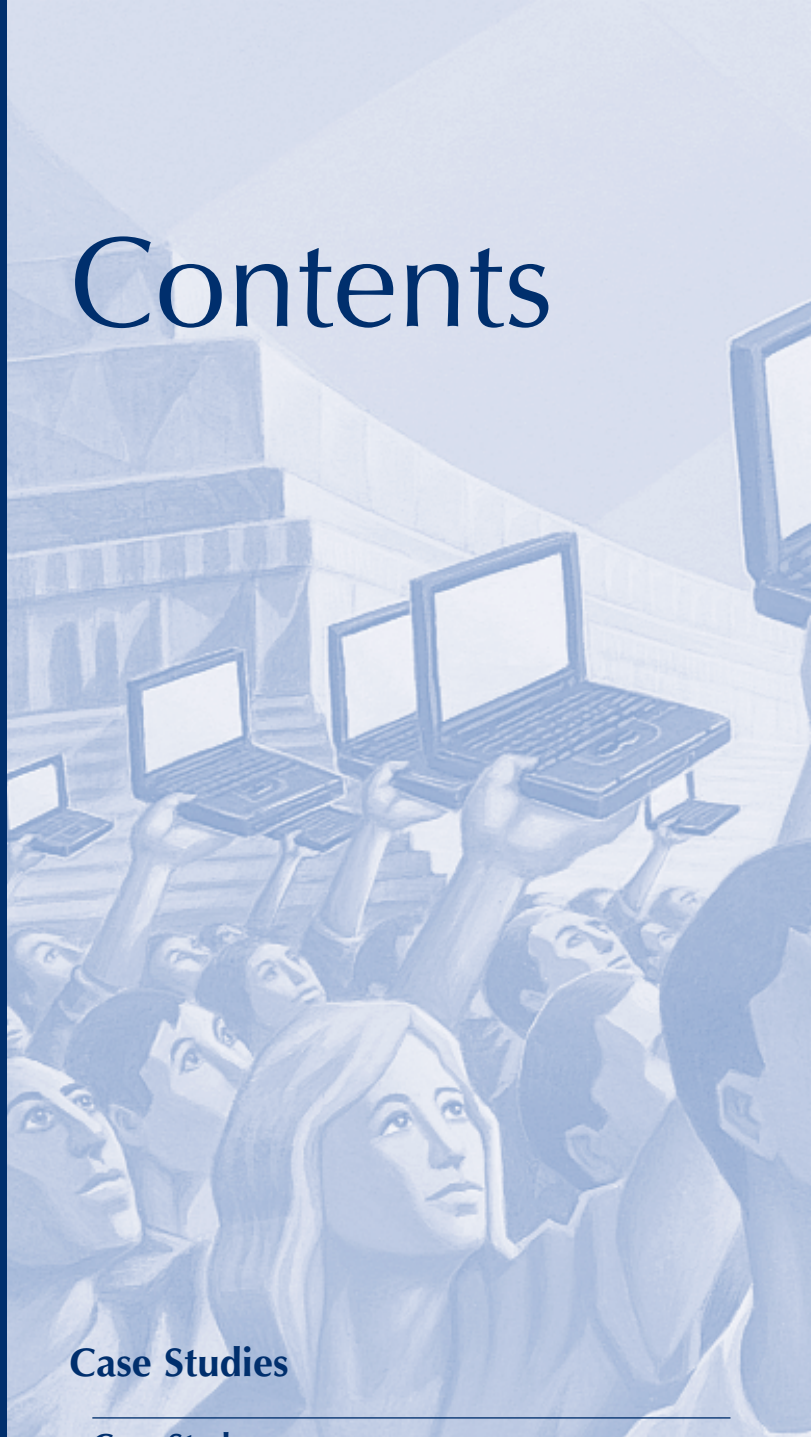


Case Studies

Case Study

1 Using IT to improve service delivery - Land Registry

This case study shows how the Land Registry is using technology to transform the way it carries out its core activities to reduce costs and improve its productivity and the quality of service.

Lessons learned

i) Use of a **management information system** to monitor work on a daily basis; informing day to day management decisions such as where to allocate resources; to monitor the success of new systems, processes and procedures; to plan budget and forecast for future workload. For example, using the management information system, the Agency was able to monitor on a daily basis the efficiency of a new system for completing registrations on the same day as they are received;

ii) Use of **off-the-shelf packages** to meet an organisation's needs can ensure that adequate support is available. The Land Registry's management information system has been purchased under license from a software company who update it to meet the Agency's developing needs;

iii) **Involving customers** in any new development. Increasing customer focus has provided the impetus for much of the change introduced by the Agency which is now finding that customers are pushing for change. A director of training and education has been appointed to assist in ensuring that both Land Registry staff and customers are equipped with the knowledge and skills to use the e-Conveyancing system effectively;

iv) **Realistic timetabling** and **thorough but flexible planning of IT projects by:**

- involving procurement staff, the Office of Government Commerce and suppliers as early on in the process as possible;
- bringing top management into the decision-making process as early as possible; and
- making allowance that projects may take longer than expected. For example, previous experience of advertising contracts in the Official Journal of the European Communities has meant that, for the e-Conveyancing programme, the Agency is assuming that the process will take 18 months and is planning accordingly;

vi) **Having effective leadership** particularly when change affects customers and external stakeholders. Its approach to new service delivery such as Land Registry Direct has been to facilitate and enable the change by educating and engaging the commitment of customers to the change, finding a partner to deliver it and then letting them run the service. e-Conveyancing will be similar - the Land Registry does not own the conveyancing system but because registration lies at the heart of the system, the Agency has taken the lead of behalf of the citizen because of its previous experience in successfully introducing IT-enabled change.

In the UK there are:

- 15 million freehold and 3 million leasehold registered titles worth about £2,000 billion;
- 3 million changes in ownership each year including 1 million residential sales.

Source: Lord Chancellor's Department Regulatory Impact Assessment June 2001 - Land Registration Bill

Key Milestones

1 1990 compulsory registration of land and the land register is made open to the public;

2 Computer Applications Processing system is installed in District Registries;

3 Programme started to scan over 9 million filed deeds (over 80 million scanned images) and Land Charges Registers;

4 By 2001, 17 million paper title registers and plans are converted into electronic format;

5 9 telephone service centres are established;

6 June 2000 Land Registry Direct launched;

7 National Land Information Service launched (February 2001);

8 Vectorisation programme started to create a computerised index map;

9 e-Conveyancing - target date 2006.

1 The Land Registry is responsible for keeping and maintaining the Land Register of England and Wales. Its main purpose is to register title to land in England and Wales and to record dealings once the land is registered. Whilst its activities are largely invisible to most citizens, they impact on those buying and selling, or otherwise transferring the ownership of property: firstly as one of the organisations from which solicitors must request a search (to prove ownership of the property and to discover any other parties with a financial interest in it) and as the body with which the change of ownership is registered once the transfer is completed. The Land Registry is self-funding and earns all its incomes from fees charged for registering transactions. It has been awarded its fourth consecutive Chartermark award for service to customers.

What has the Land Registry done?

2 For several years the Land Registry has been implementing a process of continual change and improvement using developments in technology to streamline and automate its processes where appropriate. The Land Registry has:

- **computerised and re-engineered its system** for processing applications to register land. The process used to involve up to 12 different members of staff, it can now be completed by one in all but the most complex cases;
- **converted 17 million paper title registers and plans into electronic format** and is currently scanning deeds and documents held by the Land Registry and Land Charges;
- **made its services available to customers through call centres and on-line** through Land Registry Direct which subscribing users can use to view computerised registers and title plans on screen and to conduct searches themselves;
- **developing three further services** extending its opening and service hours to late evening and Saturday working; a one-stop shop facility through which requests for searches such as Land Registry, Coal Authority and Local Authority searches can be made and received electronically - the **National Land Information Service**; and the creation of a computerised index map which can be used by staff and customers to retrieve title numbers by which the register is accessed, which will further speed up the process of searches.

What have been the benefits of IT-enabled change?

Improved efficiency of internal processes

- there has been a major reduction in the physical movement of documents;
- the removal of duplication in the process through combining operations; for example, the re-reading of documents as they pass through the system;
- combining stages and reducing movements of documents has enabled increasing workloads to be handled without the need to increase staffing;
- increased efficiency is further illustrated by the reduction in the cost per unit of work (in real terms) from £27.48 in 1995-96, to £22.52 in 2000-2001; and
- a workforce which is more knowledgeable, flexible and better able to cope with major fluctuations in workload.

Improved services to customers

- the provision of a quicker service to customers, for example, the average processing time for post completion applications relating to the whole of registered title has been reduced from 3 weeks in 1994-95 to 2 days in 1999-2000; and
- direct access to the register, the plan and other pre-registration services through Land Registry Direct. There are more than 3,700 account holders (organisations) with Land Registry Direct, the number of monthly register views has grown from 45,851 in January 1999 to 186,196 in August 2001, and the number of Electronic Notification of Discharge lodged monthly has also grown from 6,000 in April 2000 to 85,885 in August 2001.

Reduced fees to customers

- fees have been reduced by 40 per cent since 1993; and
- further reductions in fees are possible to users who use Land Registry Direct:

Fees for Manual system	Fees for Land Registry Direct costs
Office copy of the register - £4	Viewing the register on-line - £2
Official Search - £4	Official Search - £2

How was this achieved?

3 The Land Registry implemented these changes by:

- **re-engineered processes**, for example, by combining the legal and mapping processes involved in creating the register through a combined intelligence system. This has been facilitated by the redesign of its IT systems and in a move from a mainframe to a personal computer/client server platform;
- **used** developments in **technology**, for example, to scan 17 million title plans so that they are stored and can be accessed electronically;
- **consulted** with customers to seek their views on the level of service they require and how systems and processes can be improved; and
- **continuously trained and communicated** with staff, for example, **training** every member of staff requiring a personal computer on its usage.

What further developments are planned?

4 The work undertaken to date has involved either making current services available electronically or making internal processes more efficient by redesigning them with the support of new technology where appropriate. For the future, the Agency plans to introduce fundamental changes to the way in which it works and the conveyancing process through the e-Conveyancing project. This aims to develop a paperless system where all communication and documentation is electronic: processes are immediate; registration is simultaneous with completion; money settlements to all parties are immediate and also simultaneous. Some of the benefits envisaged are:

- **a reduction in the time** - it takes from the initial acceptance of an offer to the signing of a contract from eight weeks to three;
- a **more transparent system** - to enable conveyancers to view progress in a transaction chain and as a result, identify and take action to remove blockages;
- **removal of risks** which exist in the current system, for example, once a sale is completed, there is a delay on average of about 10 weeks before the solicitor lodges an application for registration and the purchaser becomes the new legal owner. At this stage the Land Registry often finds discrepancies in the application which could potentially impact on the purchaser's legal claim to the property. The new system will remove this risk by **increasing the accuracy** of data transmitted between parties through use of automatic validation checks. By completion all documents will have been validated, one with the other, and with Land Registry data, so facilitating simultaneous completion and registration;
- **make fraud more difficult** - at the moment the Agency has to cover any losses from fraud, which costs about £245,000 per year; and
- **enabled staff to focus on complex cases** - staff will no longer have to do the routine work which currently takes up a large part of their time, and so will be able to concentrate on the activities where they can **add value** such as registering less straightforward titles, with the aim of completing the land register.

What is e-Conveyancing?

Within the context of a secure system of Land Registration in which title is guaranteed by the State, electronic conveyancing is the process through which land will be transferred, and rights over it created, by electronic means. This involves:

- **e-lodgement** of applications for changes in the Register;
- **e-certificates** and deeds; replacement of paper certificates and deeds, held by owners or practitioners with electronic versions held by the Land Registry;
- **electronic payment** between all parties involved in property transactions; and
- **accompanying improvements in the wider national systems** for property transaction made possible by e-technology.

Potential savings from e-Conveyancing to legal practitioners

Clerical Labour	£15.00
Preparing and copying paper contracts/transfers	£3.00
Postage	£1.75
Storage of papers	£1.25
Total saving per transaction	£21.00

Source: Lord Chancellor's Department Regulatory Impact Assessment June 2001 - Land Registration Bill, paragraphs 57 and 58

(These are preliminary figures derived from informal discussions with a small number of practitioners. To these direct savings, may be added the beneficial effect of using electronic communications on the internal document handling processes of a firm. For a firm which has already invested in IT systems the benefit accruing from that investment will be all the greater).

5 The Agency is in the early stages of drawing up the full business case for the programme and developing the programme infrastructure, it intends to manage the programme using Prince 2 project management methodology and will put the project through the OGC Gateway Review process. The Programme requires several changes in legislation which will be enacted through the Land Registry Bill; Section 8 of the Electronic Communications Act 2000 and the Finance Bill 2002. The Lord Chancellor's Department has taken the lead on securing the legislative changes, whilst the Agency is leading on the practical changes which are required to implement the Programme. There is an interdepartmental steering group overseeing the project. In addition there is a stakeholder forum which involves 17 departments. One of the by-products of the Agency working with these departments to consider the process for the future, has been that they have discussed and found solutions to current problems such as Stamp Duty fraud.

Balanced Scorecard

Benefit Realisation

- quicker, easier and less stressful process for the citizen;
- reduction of risks;
- reduced user fees; and
- opens up the Register to new customers.

Project and Risk Management

- the programme structure for e-Conveyancing has several interesting features including an "E" Intelligence working group whose role is to track other developments within the Agency and other departments and countries to ensure the programme takes account of them and to learn from best practice elsewhere;
- key risks identified include: raising unrealistic expectations; being overtaken by technological changes; and
- a key feature of project and risk management is the incremental approach of introducing one element of the system, which can stand alone at a time. This means the Agency is not faced with an all or nothing situation.

Promotion of Joined up Government

The interdepartmental steering group ensures that the interests of other departments will be taken into account in developing the system, for example, they aim to develop a system which will allow the Agency to calculate, debit and send Stamp duty to the Inland Revenue so that they do not have to collect it separately.

Efficiency Gains and Savings

- production costs reduced (cost per unit, in real terms, was £27.48 in 1995-96, and £22.52 in 2000-2001);
- percentage of all registrations processed in 25 working days increased from 75.5% in 1994-95 to 79.1% in 2000-01; and
- future savings will come from converting manual processes, currently performed by Land Registry staff, to direct, automated, electronic processes performed by conveyancers.

2 Government Gateway Project - Office of the e-Envoy

This case study shows how the Office of the e-Envoy is seeking to make government services more accessible to citizens and to reduce the costs of setting up the infrastructure necessary for electronic delivery of government services. It also shows the value of independent review of major projects at key stages in their development.

Lessons learned

i) **Project management on the departments side must be very strong** - this means that project managers must be able to make decisions on the management of the project quickly; and suppliers must not be allowed to lead the project without strong checks and balances at the client end;

ii) **The department must develop knowledge of and work closely with everyone in the supply chain** - it is not enough to have a robust working relationship with the main contractor, it is also vital that, in cross-government projects, all departments involved have representation in the team and are closely involved in the delivery;

iii) **Project boards should include senior people from outside the organisation** so that they can challenge assumptions and provide insights based on experience gained from outside the organisation;

iv) **Strong contractual foundations are vital in delivering complex projects, with special attention paid to key contract terms such as ownership of Intellectual Property Rights** which should be clearly stated and agreed with potential vendors at an early stage of the procurement; and

v) **Thorough change control and testing before a system goes live** is vital in systems which involve external transactions as unlike internal users, citizens and businesses will not be able to work around the system whilst any initial problems are addressed.

1 The first phase of the Gateway went live on 25 January 2001 with three pilot services: Inland Revenue - Pay As You Earn Internet services for employers and their agents; Customs and Excise - completion of Value Added Tax returns; and Department of the Environment, Food and Rural Affairs (formerly MAFF) Integrated Administration and Control System Area Aid Application. These were chosen as the departments have different technical platforms, different volumes of transactions and it is possible that one client base (farmers and their agents) may use all three services and so the ability of the system to cope with different technical bases and to provide good linkages could be tested.

What is it?

The Government Gateway provides the technical infrastructure to make it easier for citizens and businesses to carry out transactions with government departments. It's primary purpose is to authenticate and route, transactions such as tax forms electronically. It is the first government system to be developed in the world that allows different systems based on different technical and vendor platforms to communicate with each other whether they are government or commercial. Other unique features are that it can be easily expanded as volumes increase and it uses open standards, which allows for future growth and development.

What does it do?

The Gateway does not provide services or transactions directly but makes it easier for the end user to access them from any point of entry. For example, where transactions involve more than one department, it will provide a seamless service to the end user by routing the transaction around all the appropriate departments and allowing them to share information quickly and easily. Depending on the pages users visit and the transactions they carry out, the system will also provide them with links to other services and information which may be of interest. The Gateway also gives security to both the user and service provider, by allowing single identifiers whether a password or a digital certificate to be used to confirm that a user is authorised to carry out a transaction. It is possible that that one identifier could be used to access a range of services.

What has been achieved?

Phase 1 of the Government Gateway: Results

Service	What can users do?	Number of transactions To August 2001 () = total possible population
Inland Revenue: Pay as You Earn Internet services for employers and their agents	Employers can send in electronically for the latest closed tax year: ■ Annual returns; ■ End of year summary; ■ Supplementary return; ■ Returns of expenses payments or benefits; ■ Returns of class 1A National Insurance Contributions; ■ PAYE Employers notice.	6,000 (1.5 million)
Customs and Excise	Business can send in their quarterly Value Added Tax returns electronically	2,000 (over 1.5 million)
Department of the Environment, Food and Rural Affairs: IACS Area Aid Application Scheme	Farmers or their agents can submit electronically their claims for grant under the Integrated Administration and Control System Area Aid Application Scheme	1,000 (556,900)

As of 20 August 2001, individuals can now also complete their Self-Assessment forms on the Inland Revenue website and send it through the Gateway.

How were these results achieved?

Business Case

2 Initially Inland Revenue and Customs and Excise had a shared vision of developing a system whereby one password would give businesses and citizens access to both their services with the aim of creating a customer-focused front office system. At the same time the Cabinet Office (Office of the e-Envoy) were looking for a pan-government gateway, and on the basis that it would be more cost-effective to develop the technical infrastructure centrally, took on responsibility for developing the technical solution. The Office of the e-Envoy estimate that central development of all the hosting, security, networks, certification and password procedures and GSI connectivity necessary for departments to provide seamless transactional services to citizens by 2005, will cost less than one-fifth of what it would cost if all departments developed their own solutions. At the same time, implementation of new services will be faster if they take advantage of the existing infrastructure that will also provide a greater degree of scrutiny and resilience than would be possible were a single department to create it.

3 The Office of the e-Envoy expected that £36 million would have to be spent between July 2000 and March 2002 to develop the hardware and software, technical architecture, interoperability standards, policies and procedures necessary to operate the Gateway as a managed service. Bids were made to the Capital Modernisation Fund by the Cabinet Office, Inland Revenue, and Customs and Excise. The business case covered the development of a number of components essential for central infrastructure including the Gateway, GSI and the Knowledge Network. From these bids, Inland Revenue contributed £15 million and Cabinet Office committed £8-10 million for the initial phase of development (£23 million) of the Gateway. Cabinet Office took on corporate governance and managed it as a single cross-cutting programme under the direction of the e-Envoy. The core of the project team came from Inland Revenue.

Procurement

4 The main stages of the procurement were as follows:

- it was decided to appoint suppliers using the Framework Agreement under the Government Telecomms Contract;
- six suppliers were originally considered, which resulted in two consortia making bids. An evaluation team considered these bids and informed Compaq who made a bid of £36 million that it was the preferred bidder but negotiations continued as there were concerns about its ability to deliver to the standard required. The concerns centred on the technical solution, value for money and contractual clauses on issues such as Intellectual Property Rights;
- because of the lead time involved in meeting the requirement and the need to have the Gateway operational by 25 January 2001 so that Inland Revenue and the Department for Environment, Food and Rural Affairs could use the system for transactions in 2001, Compaq were given permission to proceed (to the value of £6.8 million) pending the agreement of the contract;
- by September it became clear that the Office of the e-Envoy and Compaq could not reach agreement on the contract. The Office of the e-Envoy paid £4.77 million to Compaq for the work done (and equipment received) and consultation with key stakeholders such as the Office of Government Commerce decided to manage the project in-house and placed contracts with various companies (including Cable and Wireless, Dell, Microsoft and Sema) to deliver different parts of the requirement;

- Phase 1 of the project was delivered on time for £15.6 million plus VAT. This excludes the money paid to Compaq; and
- a deal has been signed with Microsoft to license the intellectual property rights to the Government Gateway, which should allow the costs of the system to be recovered in five years.

Gateway Review Process

5 A key element in the management and control of the project has been the use of Gateway Reviews which delivered timely reports identifying issues which needed to be addressed and informed decision making at key stages within the project. The project team reacted quickly to implement recommendations and address the issues identified which helped to ensure the successful delivery of the first phase of the project despite the problems with the initial procurement. For example, an independent review helped to inform the decision to terminate negotiations with Compaq and to manage the project in-house. Two Gateway reviews were held shortly after this decision was made. The first of these identified ways in which the project management structure, risk management and contingency planning could be strengthened, the subsequent review was held three weeks later and assessed the extent to which these issues had been addressed and found that they had been. Reviews were also held after the system had gone live to assess the strength of the system's operational effectiveness and the ability of the team to support the system on a day-to-day basis. These have identified three key risks which the Cabinet Office need to manage - that departments do not see advantage in joining the Gateway; that take up remains low because of the need to obtain digital certificates, lack of incentives and inadequate marketing; and that if demand increases the Gateway will not be able to satisfy demand. The review suggested that these risks need to be managed outside the project team elsewhere in the Cabinet Office. To address these risks, the Office of the e-Envoy has:

- set up an inter-departmental working group to examine the issues raised by digital certificates;
- adopted a portfolio approach to bring new departments and services onto the Gateway by grouping those with similar functions together to work with them to establish how the Gateway can help them improve electronic service delivery; and
- begun developing a facility that will make adding easier for departments adding new services onto the Gateway.

Risk Management

6 The team adopted a tight approach to risk management which included:

- maintenance of a risk log;
- close liaison with customer departments to ensure that they were managing the risks and actions for which they were responsible; and
- daily conference calls internally and with customers and key suppliers to ensure that everything was running smoothly and according to plan and action was taken where necessary.

Daily calls are still made to key suppliers to ensure that they are able to deliver an effective service and to identify and resolve potential problems.

What are the next steps?

Ensuring take up by departments and citizens

7 The success of the Gateway is dependent firstly on departments using it for their information and transactional services and secondly on use of the services available through the Gateway by citizens and business. The challenge for the Office of the e-Envoy is to increase the range of services which are available through the Gateway and to help departments to increase the number of citizens who use the Gateway. It is taking a number of steps to achieve this including:

- enabling transactions such as payments, outputs such as tax statements and more transactions such as tax statements and Pay As You Earn and more transactions from Customs and Excise to come on-line this year;
- adopting a portfolio approach to the development of new services on the Government Gateway by grouping departments with similar functions and processes together who are likely to require similar tools - benefits, business, local authorities, joined-up justice and joined-up health;
- working with vendors to develop generic "boxes" which will allow departmental systems on different technical platforms to link up with the Gateway;
- working with departments and the Treasury to ensure that any bids to the Capital Modernisation Fund for IT-enabled service delivery projects to take account of how the Government Gateway can be used to deliver these services in a more cost-effective manner;
- developing a Click to add facility so that by the end of December 2001, it will be easier for departments to add new services onto the Gateway;
- using a Virtual Private Network so that public sector organisations, such as local authorities, which are not on the Government Secure Intranet will be able to link-up to the Government Gateway; and
- establishing an interdepartmental working group to examine how the need for businesses and citizens to have digital certificates for certain transactions might impede take up of services. The group will address the issues and put in place appropriate policies and agreements to remove the barriers.

Digital Certificates

Digital certificates are required for authentication for transactions by Customs and Excise and DEFRA (Inland Revenue use a password system) but do allow certificates to be used. A decision was taken prior to the project starting to make these available commercially within a framework known as the T-Scheme. At the moment there are two issuers - British Chamber of Commerce and Equifax, certificates cost £50 and £25 respectively.

It has been suggested that these could act as a barrier to take up as:

- it is proving difficult to get commercial providers, although there are two more suppliers likely to come on stream in early 2002;
- individuals may be unlikely to pay for certificates; creative means of issuing certificates include wider commercial partnerships such as having them issued by employers by providing incentives for employers to do so are being explored. This is a potential rather than current issue as there are no transactions at the moment which require citizens to have digital certificates; and
- as they can only be used on PCs and Windows applications they create a physical barrier to the use of other access channels such as digital TV and mobiles.

The Office of the e-Envoy is exploring how to resolve these issues and has set up working groups involving all departments to address them.

Benefit Realisation

8 To ensure that the benefits envisaged with the Government Gateway are achieved the Office of the e-Envoy team will track the actual costs incurred in placing services on the Gateway against the costs which would have been incurred if departments had developed their own infrastructure.

Balanced Scorecard

Benefit Realisation

- easier for citizens and business to access services;
- allows transactions to be carried out securely;
- supports commercial organisations who can provide value-added services around core government transactions; and
- supports agents across all services promoting the use of intermediaries helping to address the digital divide.

Promotion of Joined-up Government

- will allow citizens to carry out complex transactions involving more than one department more easily; and
- the system is being developed specifically to enhance the ability of departments to work together electronically by ensuring that different departmental systems can communicate with each other.

Project and Risk Management

- there were problems initially with the procurement, but regular reviews and tight project management ensured that the first phase of the system was delivered successfully;
- including external members on the Project Board has helped to challenge assumptions and provided insights based on experience gained from outside the organisation; and
- suppliers are being managed tightly to ensure continuity of service.

Efficiency Gains and Savings

- it is estimated by the Office of the e-Envoy that central development of the infrastructure will cost less than one-fifth of what it would cost if departments were to develop their own solutions.

3 Court projects - Lord Chancellor's Department

This case study shows how the Lord Chancellor's Department are using technology to improve the quality of the various services they provide and to reduce the time taken by courts to deal with specific types of legal cases.

Lessons learned

i) The PREMA project has highlighted the substantial improvements in turnaround times of individual cases. County Court judges have commented that they prefer to work via e-mail as it is easier, quicker and reduces the circulation of paperwork through the court.

ii) Early lessons learnt from the Kingston Pathfinder Court include the need to be clear in specifying what equipment is required and also to ensure there is a mutual understanding between what is required of the technology and what can be supplied to meet this requirement.

What is the Lord Chancellor's Department aiming to achieve?

1 The Department is using technology to improve the provision of its services to better focus on the needs of its various users including solicitors, barristers and members of the public. Its e-business vision is for a department which by 2005:

- has redefined its services to meet the business it is now in and offers to the public electronically all of those services that are suitable for electronic delivery;
- has structured its services around the citizen by:
  - understanding their needs;
  - enabling them better to understand the law and legal processes;
  - increasing the ways in which they can access its services;
  - presents its services in ways which meet the life needs of its users rather than the organisational structures of this department and other departments working in support of justice;
  - has fully exploited the potential for joined-up service delivery through partnerships, new alliances and multiple delivery channels;
  - has transformed its internal processes, technical structures and systems to optimise the potential benefits e-business can offer;
  - provides staff with the technology and training that enables them to provide a high quality service to all stakeholders and customers; and
  - works with the judiciary to provide them with the tools they need to ensure justice is delivered effectively.

2 The Court Service's Courts and Tribunals Modernisation Programme is a co-ordinated programme of existing and planned projects designed to deliver modern, customer-focused services. It consists of three components: improving the management of cases, using new ways to serve customers such as via the Internet and changing the way the courts manage cases. This case study uses three projects to illustrate what the Department is doing to achieve this aim:

- **PREMA (Preston E-mail Application Service)** - using e-mail to reduce the time taken to deal with individual cases,
- **the Kingston Pathfinder Court** - using technology to improve the administration of court cases;
- **On-line Issue of Money Claims** using the Internet to provide a 24-hour service.

The aim of the Lord Chancellor's Department is to secure the efficient administration of justice in England and Wales. The Department's functions include:

- the effective management of the courts.
- the appointment of judges, magistrates and other judicial office holders.
- the administration of legal aid.
- the oversight of a wide programme of Government civil legislation and reform in such fields as human rights, freedom of information, data protection, family law, property law, defamation and legal aid.

The Court Service is an executive agency of the Lord Chancellor's Department. It is responsible for the running of the court system in England and Wales, and provides the necessary services to the judiciary and court users to ensure its impartial and efficient operation. As the key service-delivery arm of the Department, the Court Service plays an important part in implementing the Lord Chancellor's agenda for a modern justice system.

What has been achieved?

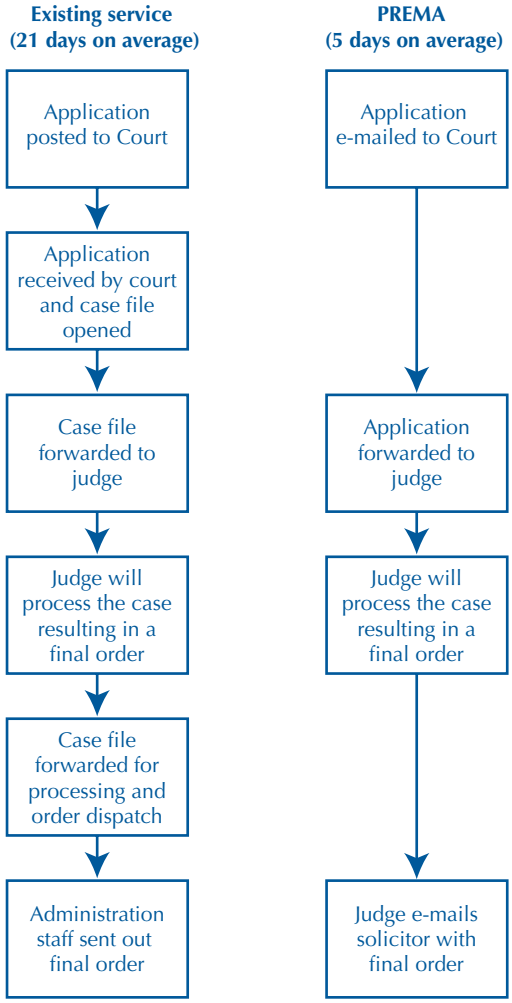
3 **PREMA (Preston E-mail Application Service)** - is a pilot project being run at the Preston County Court. Under the scheme, solicitors will issue and serve applications via e-mail. A judge will consider the applications and where possible resolve them without the need for a court hearing. The aim of the project is to determine the benefits of using e-mail to deal with this type of court work, determine potential reduction in cost and time of dealing with cases via e-mail and identify the types of case most suited to this approach.

4 The PREMA project has demonstrated the benefits and acceptability of using e-mail in administering specific types of court cases. Monitoring returns show, for example, that the average time taken to provide judgement on a civil case is reduced from 21 days to five days.

5 **Kingston Pathfinder Court projects** demonstrate the types of new technology that could be introduced to provide a better service to court users and reduce the amount of time taken to deal with cases. Kingston Crown Court has been equipped to demonstrate this new technology, including the use of electronic information screens outside each courtroom to keep court users up-to-date with proceedings in each courtroom, electronically presented evidence such as photographs, maps and witness statements, and digital audio recording of case proceedings. The Court Service is also investigating the use of e-mail and the Internet to disseminate information from the courtroom, for instance the court clerk will be able to instantly e-mail information, such as the outcome of cases, from the courtroom to the local prison.

6 The Kingston Pathfinder Court has piloted and 'proved' the underlying ICT infrastructure needs for installing new computer technology in a courtroom environment. It has enabled the Court Service to move forward to live operational pilots of in-court technology including Digital Audio Recording, Electronic Presentation of Evidence, and Improved Information to Users. These live operational pilots, once they are up and running, will be used to 'prove' the perceived benefits of using the new technology. Kingston Pathfinder Court has not demonstrated costs savings - this is one of the objectives of the operational pilots. Kingston has helped in managing the cultural changes amongst court staff, the Judiciary and users that are required for the operational pilot phase.

Comparison of the existing service and the service provided by the PREMA project



7 **On-line issue of Money Claims** - Using the Court Service website, this service, launched in February 2002, allows on-line completion of a request to issue a money claim. The service requests details of the claimant, the defendant and the details of the claim. This information can then be submitted to the Court Service that will then validate the information and process it for despatch to the defendant. The service provides a guaranteed processing time of 48 hours. The project will result in a 24-hour service enabling the issue of a claim at any time of the day or night.

Balanced Scorecard

Benefit Realisation

- more customer-focused service with greater emphasis on self-service through provision of information and guidance on-line; and
- cases dealt with more quickly with reduced costs incurred by all parties involved.

Promotion of Joined-up Government

- better liaison with other stakeholders such as the prison service; and
- in the longer term, sharing information with the Inland Revenue, the Benefits Agency and other justice agencies.

Project and Risk Management

- the Courts and Tribunals Modernisation Programme has a Senior Responsible Owner and Programme Delivery Director and each project has a Project Sponsor; and
- key risks are availability of appropriate skills and resources and the ability of technology to meet user requirements.

Efficiency Gains and Savings

- reduced elapsed time taken in dealing with certain cases and subsequent reduction in costs incurred in dealing with these cases; and
- reduced amount of time taken in administering evidence.

4 PROCAT - The Public Record Office's Electronic Catalogue

This case study shows how the Public Record Office has adopted a build-and-learn approach to the conversion of paper catalogues into electronic form which has improved the access, availability and accuracy of services. It has also improved the Office's internal efficiency and enabled them to identify better how services can be further improved focusing on the needs of users and providing opportunities for new sources of revenue.

Lessons learned

The Public Record Office found that successful implementation was aided by:

i) Adopting a **controlled and incremental approach**. The transition from the interim system to the full system was done as seamlessly as possible without a "big bang".

ii) The project structure ensured that both **senior managers and users** were involved in the project development. The Keeper of Public Records chaired the Archives Direct Programme Board and the Director of Government, Information and Corporate Services chaired the PROCAT project board. The project board also had a number of internal user representatives, external user views were sought through focus groups, open days and an on-site user trial, on-line e-mail access and comment forms and consultations with Departmental Record Officers.

iii) They found the **maintenance of a dynamic risk register** with weekly planning meetings to decide how risks were to be managed worked very well particularly when the system was going live.

1 The Public Record Office holds over 150 kilometres of records. PROCAT is part of an overarching programme - Archives Direct 2001, which is now known as the Nation's Memory - the aim of which is to enable customers to use communications networks to access a range of services including catalogues, leaflets, publications, the ordering of documents in advance of their visit to the Office and to see digitised images of some records.

2 PROCAT is an on-line electronic catalogue to the Public Record Office's holdings which can be accessed day or night anywhere in the world and is easier to maintain than the traditional catalogue. The catalogue went on the Web in March 2001. The software development project cost a total of £1 million and was delivered on time and to the required specification.

The Public Record Office is the national archive for England, Wales and the United Kingdom, its primary aim is to assist and promote the study of the past through public records to inform the present and the future. The Public Records Acts of 1958 and 1967 set its supporting aims as:

- **Selection** - to safeguard the public records and ensure the selection of those of long-term value;
- **Preservation** - to acquire and preserve those records which ought to be kept;
- **Access** - to provide access to and encourage and promote the use of records.

Figure 1 Social Inclusion improving access to citizenship records (1844-1935 and 1948-1985)

This project will allow readers to access naturalisation and citizenship registrations easily by name. As well as being of interest to social and family historians, it is vital for some people to be able access their own citizenship registrations so that they can apply for passports.

What benefits have been achieved?

3 Internal efficiencies:

- **routine word processing and editing work no longer has to be done.** There used to be a full-time administrative unit performing this task, but these staff can now work on more productive projects such as that described in **Figure 1**;
- **there is less chance of errors** in the catalogue because of on-line access to the whole catalogue which allows easier cross-checking; the provision of authority controls; a controlled editorial system; and bulk editing facilities, which all mean that there are better quality assurance procedures and the process is more controlled. This will be of benefit to readers as typing errors in the references in the paper and microfiche catalogues often were not discovered until the reader was given the wrong document;
- **better management information** provided from the electronic system is helping the Public Record Office to develop the services it offers. For example, they can track which catalogues readers have entered and the documents they subsequently order, which helps them to identify the most popular series of records and consider how they might make access to them easier; and
- **greater accuracy** - the process of putting the catalogue on-line exposed weaknesses in the catalogue data such as inconsistencies with abbreviations, for example, and a dependency on the human eye to understand relationships which have been remedied.

Improved service delivery to customers

4 User feedback confirms that the catalogue has improved the service customers receive as it:

- **faster service** - reduces the amount of time spent searching for relevant documents and allows more productive time researching;
- **accessibility** - brings to their attention sources they may not have considered before;
- **choice** - provides options for searches which are more intuitive and easier for non-academics to use; and
- **convenience** - there are over two million hits on the site each month. Staff are finding that readers are asking more intelligent and educated questions which indicates that PROCAT has been successful in educating users about what is available.

"…when a researcher has a limited amount of time available he/she certainly does not want to spend a large part of it pawing through hard copy finding aids"

"Searching for dockyards and maps, I expected to find admiralty records but was delighted to see Board of Trade and War office maps "

"The option of dates cuts out a lot of wasted time"

Source: Comments from PROCAT users

How was this achieved?

5 There were two main elements to the project:

- the conversion of 350,000 pages of lists describing eight million documents into electronic form and storage on a database. This was treated as a separate element of the project and was contracted out to a supplier following a competitive tender. The database was used as an interim catalogue before PROCAT was launched;

Before Users had to physically visit Kew, to access either through microfiche or unwieldy paper and then wait for documents to be retrieved; PRO staff - word processing pool inputting entries with duplication as information had to be entered into at least two different places.

After Users can access remotely at any time and either order images of documents by e-mail or phone, or pre-order to see originals when they visit KEW (less waiting); PRO staff - no word processing pool, can spend time more beneficially on projects to further improve access (for example social inclusion).

- the development of an electronic finding aid on-line which provided a seamless hierarchical catalogue of records which was user-friendly but met international professional archive standards. The Public Records Office adopted an **incremental build-and-learn approach** to this with pre-cursor projects to investigate different options and to prove the technology. One of these, the Core Executive Project which brought together the different parts of the finding aid system - the Public Record Office guide (the high-level guide) and the series (a portion of the 350,000 pages of detailed lists describing the files) provided the opportunity to test the editorial process and to gain technical experience of presenting an electronic finding aid on-line. This project resulted in the launch of a pilot catalogue on the website in March 1998. This and the interim catalogue provided information on the types of users, the sorts of browsers they wanted to use and the types of enquiries they were making, which was fed into the development of the on-line catalogue -PROCAT.

How will the system be developed?

6 In developing PROCAT, the Public Record Office built with the future in mind. For example, ensuring that the system had the potential to be more interactive and could be used for educational purposes through the incorporation of leaflets and links to digital objects.

7 It is envisaged that PROCAT will form the basis for a knowledge management system to support research advice and internal business information. Future related developments will include on-line images of the most popular documents; electronic transactions in ordering, paying for and receiving merchandise and document copies.

Balanced Scorecard

Benefit Realisation

- enhanced services - Remote access for users provides them with a cheaper and much more comprehensive way of accessing the records and allows them to make better use of their time; and
- helps the Public Record Office meet one of its prime statutory roles to increase access to public records.

Promotion of Joined-up Government

- worked with departmental Record Officers to develop the system;
- future developments will ensure that the system further meets departments' needs by giving them quicker access to records; and
- the use of government data exchange standards with XML for data import and export.

Project and Risk Management

- used Prince 2 to manage the project;
- adopted an incremental approach to development and release, in particular used an interim system to test out the technology and to learn more about user needs; and
- used a dynamic risk register to ensure successful implementation.

Efficiency Gains and Savings

- internal efficiencies with less time spent on typing and checking and more time spent on developing finding aids for users.

5 e-Tendering - Office of Government Commerce

This case study shows the potential for efficiency gains which may come from using technology to automate administrative tasks and how the Office for Government Commerce together with a private sector supplier and departments is seeking to confirm how these benefits might be achieved.

Lessons learned

i) **e-Tendering, as a concept, has the potential to secure significant benefits** for departments and suppliers by making the procurement process more efficient;

ii) The pilot recognises **the importance of having incentives** for government departments and supplies to increase take-up of e-tendering;

iii) The office of Government Commerce ensured that the service provider, the Royal Bank of Scotland **set up a help desk** to record all the issues raised during the pilot project so that lessons can be learnt and applied for any future implementation; the project **drew on experiences in other pilot exercises,** for example, timescales for any full roll-out will only be determined once the pilot is nearing an end and lessons have been learnt from the pilot;

iv) **Involve other departments** as much as possible in developing the system, in particular front line end users should be consulted as early as possible. There is a need to manage the expectations of these users, particularly when the system is still being developed;

v) It takes time to achieve commitment from suppliers;

vi) In **developing e-commerce systems**, action should be taken to bring on suppliers as early in the project as possible;

vii) When procuring an e-commerce solution **clearly articulate the requirement in the specification**. This does not mean telling the service provider how to provide the solution, potentially restricting innovation, but being clear about what you are trying to achieve. Failure to do so will result in poorer tender submissions that are harder to evaluate;

viii) **Strong security and accreditation**. The system procured should meet government security requirements. One of the major concerns about all forms of e-commerce is security. The mandatory requirements of Office of Government Commerce's project reflected the high priority for security. **This goes beyond the physical and logical integrity of the service providers systems**. If government and its suppliers are to have confidence in the safety and legal standing of electronic tenders, the following should be addressed:

- authentication of identity - making sure that users of the system in departments and their suppliers are properly identified and registered, and that their access to the service is controlled;
- confidentiality - tender documents cannot be read by an unauthorised party, even if they gain access;
- non-repudiation - neither party can deny having sent or having received tender documents;
- integrity - all parties must be assured that no undetected alterations have been made to any tender.

ix) **Liability** risk needs to be managed - if an electronic tendering system was to fail there is a risk that a potential supplier's tender could be lost and the supplier wrongly excluded from a competition;

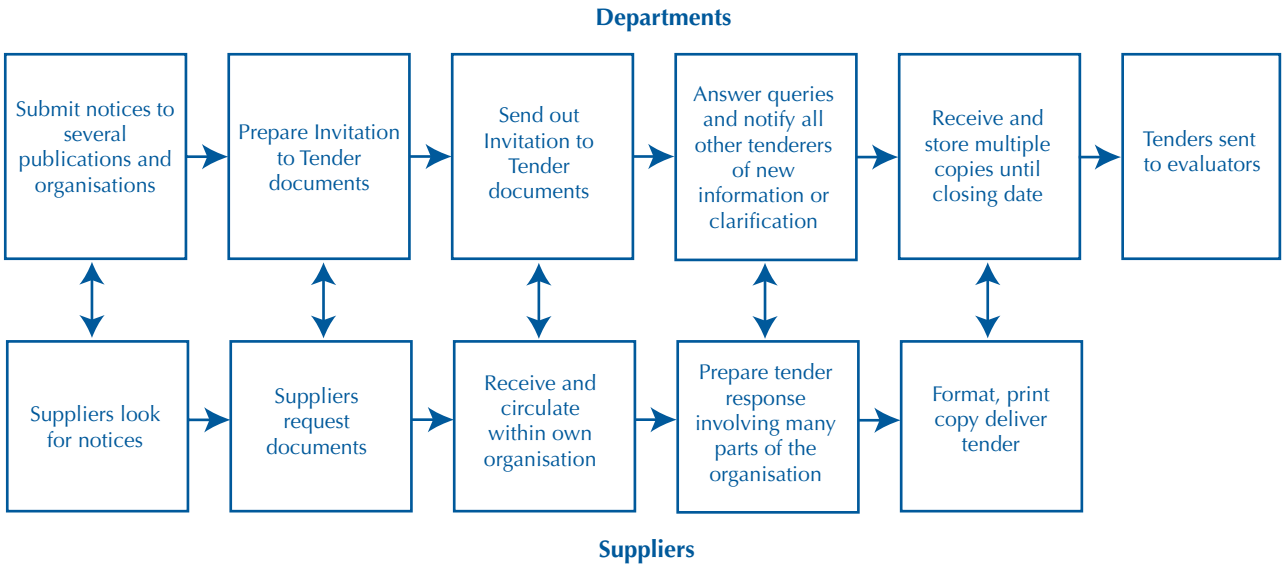
x) If IT is to be effective, IT systems must be supported by appropriate services such as training, dedicated help desk facility and a marketing programme. Careful consideration should be given to what resources are required, to provide and support the service;

xi) **Ensure that all software is fully tested prior to a large-scale role release**, for example, that a number of departments and suppliers review and test the software prior to full-scale release;

xii) **Accept that it is a pilot and that things may go wrong**. Managing peoples expectations is very important, a pilot will always have issues, **ensure that those entering in to the pilot do so with reasonable expectations**.

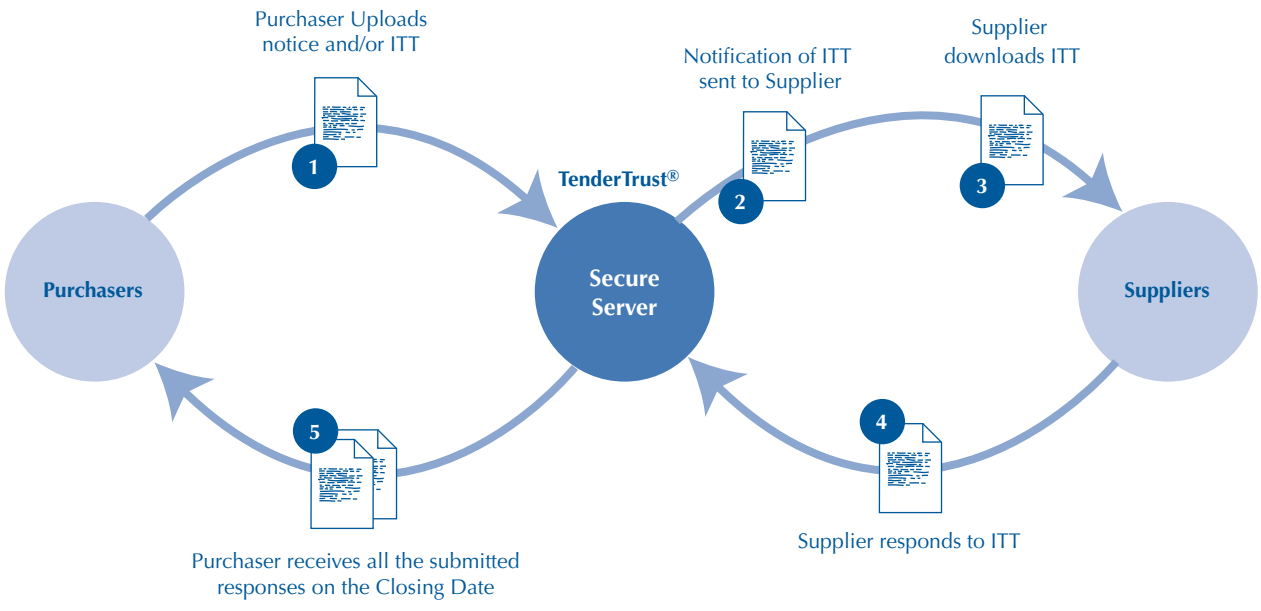
What is e-Tendering?

1 All government organisations have to purchase goods and services in accordance with UK public procurement rules. This involves applying a lengthy procurement process which is designed to provide all eligible suppliers with a fair opportunity to find out about potential contracts, equal access to information and the same timescale within which to make a bid. Whilst there may be some variation in how individual departments apply these rules, there are fairly standard stages in the process which are illustrated below.



2 The process is often criticised for being costly and burdensome both for departments and potential suppliers. Web-based technology provides an opportunity to automate the manual activities which support the tendering process and to take out some of the delays and expense.

Step-by-step guide through the Tender Trust e-Tendering system



3 There is a review currently taking place to consider what realistic, stretching but achievable targets are appropriate for e-tendering in government. This is being conducted in conjunction with departments with results expected in July 2002. To help departments, to achieve it at a lower cost, the Office of Government Commerce has placed a contract with a supplier (The Royal Bank of Scotland) to pilot an e-tendering system with ten departments.

What are the benefits of e-Tendering

4 It is envisaged that e-Tendering has the potential to remove a number of the problems commonly associated with tendering, these are described in the table below.

Problems with Traditional Tendering	Potential benefits of e-Tendering Solution	Potential Benefit	
		Purchaser	Supplier
Missed opportunities. Suppliers may not see notices.	Suppliers subscribing to the system will be able to search for and receive notification of suitable tendering opportunities by use of a search engine or registering on the system.	**Access to an increased supplier base.**	**Ensures that they know of all opportunities.**
Timescales are unrealistic. There is a need to build in time for administrative activities such as printing, copying and dispatching documents, which reduces the time available for activities such as preparing tenders and tender evaluation.	Departments will send invitations to tender at the touch of a button which suppliers can access on the agreed issue date and time. Departments will receive suppliers' proposals at the specified date and time.	**Can concentrate on activities which could lead to better deals** such as ensuring the ITT reflects the requirement which improves the chances of quality responses.	**All suppliers receive information at the same time;** can make changes, update proposals and provide further information right up to the tender closing date.
Tender documents and proposals are often bulky and costly to produce particularly as multiple copies are needed.	All documents and proposals will be prepared and sent electronically and will only be printed out as necessary.	**Reduces costs.**	
Departments ask for the same information but in different formats.	The system will provide departments with suppliers registration details.	**Reduces the amount of generic information normally requested from suppliers.**	
Different tendering processes with different public sector departments.	Whilst the system will be adapted to meet individual departments' needs it will have a managed structured path and introduce a less fragmented procurement process.	**Increased compliance** to EU Procurement directives and best practice procurement.	
Complex process to administer, for example, in answering enquiries departments have to be sure that they supply the same information to all potential bidders.	The system will provide: An electronic forum which will allow departments to communicate with suppliers; An instant record of when documents are sent and received.	**Provides an auditable record** of the communication process and facilitates changes, amendments and answers to questions. Ensures a level playing field among tenderers. Suppliers will receive confirmation of receipt of documents.	

5 It is envisaged that the system would also test added benefits such as:

- **the provision of management information,** for example, on the number of tenders issued, responses from tenderers, response times, business sectors to support supplier management and effective policy and practice development. This will enable departments to keep conflicts of interest to a minimum and to manage procurement more effectively by identifying key areas of spend to maximise impact;
- **giving departments the ability to rank suppliers electronically based on pre-determined evaluation criteria** at the outset of the procurement process; and
- **increased security** provided by encryption of transmitted material, use of a digital certificate and a trusted time source which will time-stamp receipt of documents and send out a receipt to the sender.

Efficiency gains and savings

6 The Office of Government Commerce's piloting of electronic tendering was intended to assess the robustness of the original business case that identified the potential to produce savings in the region of £13 million for the taxpayer over a four-year period; and through reducing burdens and costs to suppliers, reducing suppliers' traditional tendering costs by an estimated £37 million over the same four-year period. The savings were calculated in the business case, by assessing the actual current cost of tendering and the reduction in time and costs made possible by e-tendering.

7 In addition to these savings, it is envisaged that e-tendering has the potential to deliver further savings as it becomes a catalyst for change, stimulating innovation in the way government invites proposals from industry, and in the way responses are made which will lead to improvements in clarity, mutual understanding and continuous improvements in the fit between industry offerings and government's business requirements.

The ten departments involved in the pilot were:

- Inland Revenue;
- Department for International Development;
- Department of Health;
- NHS Purchasing and Supply Agency;
- Government Procurement Agency;
- OGC Buying Solutions;
- Department for Trade and Industry;
- British Library;
- Home Office; and
- Ordnance Survey.

How are these benefits being realised?

The Pilot Stage

8 The costs to the Office of Government Commerce of running the pilot stage was £300,000. The pilot is being jointly funded by the Office of Government Commerce and the suppliers (Royal Bank of Scotland and TrustMarque International who provided the software solution).

9 The pilot was managed through a Strategic Steering Group and an Operational Services Management Group on each of which departments have representatives. Each department had an implementation plan. The first three months of the pilot were spent on identifying and mapping the tendering activity in each department. By October, 30 Invitations to Tender had been issued and 12 responses received electronically. The pilot exercise was extended to the end of February 2002.

10 The pilot stage:

- provided an opportunity to test how the system will cope with different types of transactions;
- helped to firm up the expected savings figures, input was provided by departments and suppliers to ensure that these figures were fully supported by both purchaser and supplier side;
- helped to develop the supplier base and identify any potential problems with particular sectors in using e-tendering;
- provided reference sites which can be used if/when e-tendering is rolled out across departments;
- provided lessons which could be applied in any future full implementation; and
- validated the security of the end-to-end system.

Project and Risk Management

11 The Project was subject to Gateway Reviews, which have helped to identify issues which the team has addressed to strengthen the management of the Project and to ensure that the resulting systems meet the needs of departments. Their recommendations and the action taken are summarised below.

Gateway Reviews Recommendations	Action taken as a result
Development of a strategy of assess the potential of the market beyond shortlisted suppliers.	Ongoing analysis of the market.
Need for clear guidance on project conduct and roles and responsibilities.	Clarifying objectives for all those involved in the project.
A Gateway review is conducted before the pilot stage.	This was conducted at the appropriate stages of the project.
Definition of the objectives of the pilot stage and an evaluation strategy.	Success criteria for the pilot stage established and implemented.
Establish a proactive management structure for the pilot stage.	OGC proactive in working with the Royal Bank of Scotland and pilot departments.
Review arrangements for the Senior Responsible Officer (SRO) to see if they are still appropriate.	SRO working more closely with team.
Review resources required for the pilot.	Additional resources brought in during pilot.
Allow more proactive involvement of the project board.	Members of project board include pilot departments.

12 The Office of Government Commerce and the supplier identified a number of potential risks in e-tendering and put in place various mechanisms to manage them. These were:

- **operational risks** - that the system does not provide the level of service required by departments, a Service Level Agreement was put in place to minimise this;

- **system risks** - that the system would be prone to abuse or failure. Several safeguards were built into the system to prevent this including:
  - running a pilot to ensure the system is robust before it goes live;
  - in issuing digital certificates the Royal Bank of Scotland would carry out the necessary checks to authenticate the identity of the users. If the system were subsequently abused, the bank would be liable to pay recompense;
  - the system would operate on the Royal Bank of Scotland data system which is the same as its banking system and therefore proven to be robust. The software had also been tested for robustness and the risk of penetration by an external source by another company; and
- **risks to reputation** - if the system were not seen as robust and secure, the credibility of OGC and the suppliers would have been harmed - the chances of this happening were minimised by managing all the other risks.

Take up

13 For the expected benefits from using the e-tendering system to be gained, it is necessary that both departments and suppliers register to use it. A number of steps were taken to help to ensure a successful take-up:

- OGC applied lessons learnt from other projects about the need **to engage the commitment of departments from an early stage**. For example, it sought input from departments early on in the development and selection of the e-tendering system, and invited departments to join a cross-departmental working group so that their knowledge and expertise could be used. It also held a workshop of front line users in departments to gain their views and input. OGC also sought to make involvement in the pilot system attractive and as easy and cheap as possible by funding the pilot with the supplier. The costs of the departments involved have been marginal. For example, the Government Purchasing Agency concluded that it would be cheaper to work with OGC rather than to develop a system by itself, it estimates that the largest cost it has had to meet has been for staff time and expenditure to attend project meetings in London, which they estimate comes to a total of £5,000;
- **gaining the commitment of suppliers** - 175 suppliers had been enabled to use the e-Tendering system to date. There were four regionally based supplier-briefing sessions. The pilot was designed to test how different types of suppliers cope with the system, for example international suppliers and specialist suppliers in a niche market. Suppliers were only required to have access to a PC and the Internet. During the pilot stage suppliers were supplied with the system at no cost. OGC and Trustmarque were aware that the system should not act as a barrier to business with government and looked at ways to ensure that Small Medium Enterprises, for example, have access to the system. The pilot process has highlighted a number of issues with signing up suppliers, although the Government Purchasing Agency (GPA) has experienced less of these and attribute this in part to the smaller number of suppliers involved but also because the GPA has been priming the pump for some time. Generally, gaining supplier commitment in an e-commerce project is important and requires:
  - allowing as much time as possible to sign-up suppliers;
  - making the application process for joining the system as easy as possible with clear terms and conditions and a quick turnaround time for processing applications;
  - conducting market research to assess the value of joining the system to suppliers; and
  - marketing of the system.

Balanced Scorecard

Benefit Realisation

- will replace traditional paper tendering exercises which are seen as cumbersome and costly to suppliers;
- will increase compliance with public procurement rules by departments;
- will provide better information to suppliers and purchasers on the procurement process;
- will provide a clear audit trail; and
- will provide better quality management information.

Project and Risk Management

- lack of take-up is the main risk identified and will be managed by ensuring that the system meets users' needs through the pilot and is marketed well.

Promotion of Joined-up Government

- the project is key to the Office of Government Commerce's role to specify e-commerce standards, sponsor the development of products which can be implemented across government and develop a more focused, less fragmented procurement process across government, which is easier for suppliers to deal with.

Efficiency Gains and Savings

- OGC's piloting of electronic tendering was intended to assess the robustness of the original business case that identified the potential to produce savings in the region of £13 million for the taxpayer over a four-year period; and through reducing burdens and costs to suppliers, reducing suppliers' traditional tendering costs by an estimated £37 million over the same four-year period.

6 The Planning Inspectorate

This case study shows how the Planning Inspectorate have sought stakeholder views on the services they want and are developing new systems to deliver new services, improvements in existing services and efficiency gains.

Lessons learned

Implementation of IT-enabled change to meet customer needs requires:

i) **Sound project management** - This is being achieved through the use of an adapted version of the PRINCE2 methodology, establishment of a Programme Board, Stakeholders Board, Project Assurance Team and project board and design and implementation project team for each of the two projects.

ii) **Focus on customer needs** - The two project teams produced Blueprints for 2005 that looked at the planning process from customer and staff viewpoints, helped to define the scope and describe the characteristics of the new services, outlined changes that will need to be made to implement the new services and explained how those accessing the services will be able to use them. These Blueprints were drafted after consultation with representatives of organisations involved through the planning process - Local Planning Authorities, Government Offices, the Environment Agency, Planning Agents, planning inspectors and staff. The Blueprints were used to form the basis of the business case for the investments into the new services.

iii) **Clear requirements for suppliers** - A clear statement of requirements and project blueprints of how services will develop were drawn up and used as the basis for the competitive tender. The production of such a statement of requirements needs enough in-house knowledge to specify realistically what can and cannot be achieved. Projects that are best completed in a short timescale or larger projects that can be broken down into manageable parts benefit from this approach. The chosen contractors will subsequently be able to progress the project without the need to refer back to the Inspectorate for extensive clarification or additional information.

iv) **Continuous performance measurement** - A detailed process analysis and design is being carried out as part of the Planning Inspectorate's Information Systems strategy with the development and implementation of new working practices to improve the services. New organisational structures and team roles have been designed for the Inspectorate.

v) **Adoption of an appropriate procurement strategy to address supplier risk.** This involved:

- identifying customer needs and segmenting the market;
- reviewing the business processes first;
- preparing a risk management plan with technical, business and financial counter-measures;
- allowing time to consider the most appropriate procurement route;
- including agreed acceptance criteria in the contract;
- conducting regular, frequent and formal review meetings to focus on issues, expected results and final outcomes;
- using performance measurement to monitor and manage the project;
- allowing developers freedom to innovate;
- developing good working relationships at all levels of the organisations involved in the programme;
- setting limits on the extent of involvement of sub-contractors;
- having formal agreed dispute resolution procedures;
- using the Gateway Review workbooks to plan what products will be required of different stages of the projects. This plan should then feed into the Programme and Project Definition documents; and
- developing a Strategy for on-line operation, including a commercial model for operating and sustaining the Portal.

The Planning Inspectorate works for the Department for Transport, Local Government and the Regions (formerly the DETR) and the National Assembly for Wales on the processing of planning and enforcement appeals and holding inquiries into local development plans. It employs some 450 administrative support staff and senior management in its headquarters in Bristol, and a further 320 planning inspectors across England and Wales.

1 The Planning Portal Programme, started in July 2000, received initial funding of £3 million from the Capital Modernisation Fund. It has subsequently received an extra £3.2 million from the Department of Transport, Local Government and the Regions; in view of the wider benefits the programme will deliver in improving the planning system in England and Wales. Over 100 different private and public sector organisations are involved in the programme. It consists of two main projects:

- **the Planning Portal Project** - an Internet portal providing services from a range of organisations and provides information and interactive guidance on how to make an appeal. It provides an electronic planning advisory service linking the public, business and other users of the planning system to a wide range of advice, guidance and services on planning and related topics. The Planning Portal is due to be launched to the planning profession in April 2002. The launch to the general public and small businesses is likely to be in October 2002 when the full on-line appeals service will go live. The latter is dependent on an Order being made under Section 8 of the Electronic Communications Act.

- **the Planning Casework Project** - an electronic document handling and tracking facility for planning casework within the Inspectorate. It also automates links between the planning authorities, Government Offices, the National Assembly for Wales and other interested parties and provides access via the Internet to progress and decision information on some 20,000 cases handled by the Inspectorate each year. The Planning Case Project is planned for completion in August 2002. The project:
  - streamlines the planning system by cutting delays in processing appeals and speeding up decision-making, thereby improving service to business and other users and helping planning authorities to meet best value targets;
  - improves accessibility to the planning process including paying fees on-line;
  - enables all parties in the planning process to exchange data and documents electronically, to facilitate consultation on planning applications with statutory and other consultees and further contribute to faster processing of planning applications and appeals;
  - reduces the number of abortive planning applications through better quality seemless advice and guidance.

What does the Planning Inspectorate expect to achieve?

Efficiencies expected include:

- reduction in the time and cost of distributing leaflets and forms;
- reduction in costs of printing publications;
- reduction in staff time spent answering phone queries from public, government offices and agencies; and
- reduction in staff time spent through standardisation of processes to make planning service quicker resulting in faster turnover of applications and appeals.

Savings from implementation of the Planning Portal Programme are estimated to be some £40 million over 10 years. The savings include those to the Planning Inspectorate through increased efficiency in the processing of appeals and casework and to local planning authorities from the use of toolkits. There is also a substantial unquantified benefit to the economy from a faster and more efficient planning system which the Planning Portal will facilitate.

Improved services to customers

- more customer-focused service with greater emphasis on self-service through provision of information, guidance and forms available on-line;
- less time taken to arrive at decisions on applications and appeals;
- free provision of a Portal Toolkit for local authorities and other partners, which will include business case support, development guidelines and common information and data standards; and
- improved accessibility to information at all stages of the process for all parties involved, thereby encouraging greater and more focused public participation in the planning process.

Balanced Scorecard

Benefit Realisation

- more customer-focused service with greater emphasis on self-service through provision of information and guidance on-line;
- quicker appeals process due to less time spent on other activities such as dealing with incomplete appeals.

Promotion of Joined-up Government

- the Programme Team are also working closely with the Local Government Modernisation Team and the Improvement Development Agency to ensure that cross-cutting opportunities are fully considered.

Project and Risk Management

- adapted PRINCE2 used to manage to project;
- key risks identified include:
  - capacity of the Planning Inspectorate and partners to change;
  - organisational boundaries;
  - programme management; and
  - technical complexity of IT solutions.
- a key feature of project and risk management is the incremental approach adopted by feeding in users views and experiences to the build, test and development stages of the services.

Efficiency Gains and Savings

- reduction in the staff time and cost of distributing leaflets and forms;
- reduction in printing costs; and
- reduction in staff time spent answering queries from the public, government offices and agencies.

7 Office for National Statistics

Customer segmentation

This case study shows how one department has moved from being a printed product-led organisation to becoming one which is more customer-focused and how it is using developments in technology to provide customers with different ways to access its services.

1 The Office for National Statistics produces official data and is also the custodian of the National Statistics brand.

2 In an increasingly fast-moving environment, it has identified a need to understand its customers' changing needs and expectations and how well they are being met now and to plan for the future. To achieve this, the Office for National Statistics has moved from being a printed product-led organisation to one that is more customer-service focused.

Why did it need to change its approach?

3 Its market research used to be fairly narrowly print-product focused and was largely based on surveys of particular publication readerships or on specialist subject user groups. This approach was of limited value and did not help the Office to understand sufficiently how its customers used its information and what sort of service delivery would best help them in their work. It was also poor at helping the Office to predict and plan for their emerging and future needs. The growing use of the Internet in particular, and its ability to provide fast, accurate, low-cost access to large volumes of information, was an additional impetus driving its need to understand its customers' needs better.

What has the Office for National Statistics done?

4 The Office for National Statistics has used a number of ways to better understand its customers' needs. Throughout 2001 it conducted customer-segmented focus groups looking across its product portfolios at the type of data covered and how it could be best delivered - on paper or electronically via the website, for example. Customers were segmented by type and by the frequency with which they used the data and, on the basis of this research, the Office decided on the best way to deliver data and services for each group.

5 The Office for National Statistics launched a new website in June 2000 and had conducted focus groups and laboratory usability testing to fully understand how its users were able to navigate and to find the information they needed. These findings were then systematically implemented as part of a development programme. It is taking this style of research in improving its existing website with a phased implementation of a new website starting in 2002. Users are being involved at key stages of development and will influence the look, feel and functionality of the site.

Providing Wider Access To Material

6 The Office for National Statistics expects the Web to become an increasingly important channel for publishing information. It will use customer research to help inform and test out propositions for changes in the method of delivery, for example, moving from print to Web for its publications. It successfully used this approach in its portfolio review last year of low-selling statistical volumes (400 volumes in all).

7 Publications that continue to be published in physical format - print or CD-ROM - will be charged for. Under its current pricing policy, prices would be set at a level that allows the Office for National Statistics and its publisher (The Stationery Office) to recover production and publishing costs. All physical products will also be available free of charge on the website - usually in their entirety. This multi-channel approach to publishing will therefore allow customers who do not need the printed format, or who do not want to purchase the paper product, to have free access to the information via the website. There will also be free access to some printed publications through public libraries, many of whom stock a selection of Office for National Statistics products. Also, a well-publicised National Statistics enquiry service has a key role in providing information over the telephone or by e-mail. It also responds to enquiries by mailing photocopies of relevant publication or web pages free of charge.

8 Hertfordshire County Council

This case study shows how Hertfordshire County Council is establishing new forms of access to its services and re-engineering its services to set up departments which are based around the needs of the customer and using technology to improve delivery of services.

Lessons learned

Hertfordshire have found that the following key elements helped them to achieve this change:

i) **leadership** - the Chief Executive outlined the vision for transformed services and personally ensured that it got the support of all key stakeholders in the Council;

ii) **information** about the nature of contacts and how services are delivered was key to successful implementation. Initially, much of Hertfordshire's information was "inspired guess work" derived from the process mapping exercise, but development of the customer information base and management information systems have helped to fill the gaps and are influencing the development of new services; and

iii) **cultural change** - the Council wanted a step change in the way in which enquiries were handled and how the Council was perceived, this was achieved by recruiting and training new staff specifically for the Call Centre. The emphasis is placed on customer-facing skills rather than traditional professional skills sets.

1 Hertfordshire County Council provides education, environment, social, culture and leisure, fire and rescue and road services to a population of one million people. In 1997, it faced a situation where there was growing demand for its services, but its ability to meet this demand was restricted by budgetary pressures. Faced with this challenge and with a population which was becoming increasingly IT literate (over 50 per cent of people in the county have access to the Internet), and who were critical about the accessibility of Council services, it decided to use technology to transform the way it delivers its services.

What did Hertfordshire County Council do?

2 Hertfordshire's approach was to draw up a process map of all of its services and contacts with people and then consider whether it was possible to provide these services and communicate with its customers in a more cost-effective way. This led to new forms of access by:

- the establishment of a Customer Service Centre through which all initial calls to the Council are routed and which will deliver a seamless service to customers by linking back-office functions to the front line; and
- a transactional Website - www.hertsdirect.org, which aims to provide access to the full range of Council services 24 hours a day, 7 days a week. Services are selected for delivery by this website on the basis that:
  - there is a known demand from the public for this form of access;
  - a transaction is high volume but low risk, such as library renewals; and
  - it is a service which is in demand outside of normal office hours.

3 Children, Schools and Families brings together services focused on children and uses a Customer Relation Management system to manage case files and workload so that it is possible to have "one child, one file, one caseworker." Adult Care Services will be modelled on similar lines.

4 These developments have been partly financed by reducing the Council's Property Portfolio which was made partially possible by the introduction of different working methods such as remote working by using new technology and partly by the transfer of budgets following the transfer of delivery routes.

What have they achieved

5 Progress to date has yielded the following results:

- Library services have found that typically transaction costs have reduced from £4 to deal with a query face-to-face to 10p if the query is resolved over the Internet;
- there is improved accessibility for the public. Over 80 per cent of council services are available through the Customer Service Centre which is open 67 hours per week from 8 a.m. till 8 p.m. Monday to Friday and 9 a.m. till 4 p.m. on Saturday;
- it is possible for Hertfordshire residents to carry out transactions on-line. Early examples include order and pay for birth, death and marriage certificates, renew library books and book research time at the county archives; and
- there is a faster and better quality service for the public with 80 per cent of queries resolved by Call Centre staff.

9 RAC Motoring Services (RAC)

This case study illustrates how new technology and changes in working practices can be introduced to improve services and secure a 5 per cent improvement in operational productivity.

Lessons learned

i) **Undertake market research to establish what service customers require.** It is important that RAC provide the services that customers want. RAC have undertaken extensive market research to identify their potential customer base, customer needs and the services RAC are best placed to deliver and what partnerships they should enter into.

ii) **Make changes in working practices and processes before introducing new IT.** For example, the changes in patrol rostering were made before the new IT system was introduced so staff became familiar with the new working methods and problems could be solved before the new IT was introduced. This enabled the RAC to deal separately with the people and technological issues involved in the new ways of working.

iii) **Take a step-by-step approach to implementing change with IT.** There is often a resistance to change from staff. By taking a step-by-step approach to change confidence can be built up by having a track record of successfully implementing changes shown by improved services and better working practices and solving problems as they arise. This in turn builds up the credibility of the programme of change.

iv) **Buy-off the shelf applications with a proven track record where appropriate rather than purpose built systems to save costs and learn lessons for implementation.** RAC have bought an "off-the-shelf" command and control system because it is being used by 200 agencies across the world mainly for police, fire and ambulance services. The RAC were able to draw on the experience of the RAC in Victoria, Australia who had used the system. For example, the training of staff who are to use the new system should take place as close as possible to the planned implementation as the benefit of the training will be lost unless staff have an early opportunity to use the new skills acquired.

v) **Better information from systems enables the expectation gap about what service customers expect to be managed.** Research has shown that customers are more interested in knowing when help is likely to arrive rather than getting the quickest service. RAC have therefore implemented systems that give priority to the accuracy of the arrival time. For example, the global positioning system in patrol vehicles enables patrol staff to be found within 10 metres and permits the automatic allocation of the right patrol to deal with the customer. Details are held on the time a job is expected to take and the travel time to the next customer. This enables the RAC to provide more accurate information to customers about when help is expected to arrive and improves the productivity of patrol staff.

1 The RAC was bought by LEX in 1999 and has reorganised its operations and introduced new working practices and IT to enable its services to be more customer-focused. RAC has two main areas of business:

- **Corporate and fleet business** which provide services and products to the corporate clients, for example, breakdown assistance for fleet vehicles and manufacturers i.e. Ford. RAC also has partnerships with a number of other companies. 50 per cent of all new cars sold in the UK are sold with RAC membership. In 2002, 700 RAC staff will man a call centre for a major insurance company, Norwich Union, and RAC staff will provide after-sales service for Audi and handle technical enquiries for Ford products in the UK.
- **Individual customers** are provided with a range of motoring services such as breakdown and recovery services, service and repair, vehicle examinations, finance, motoring and travel insurance, legal advice and driving instruction (RAC own the British School of Motoring). RAC partnerships in this area include an agreement with AXA insurance to use the RAC brand for car insurance.

2 The operations wing of RAC employs 2,100 staff and provide services to both of the above business areas under service agreements which include key performance indicators and an internal charge for work done. Operations show a 'profit' by securing efficiency savings.

What has RAC achieved?

3 Two recent projects illustrate what RAC have done to improve services and operational efficiency.

4 RAC have a customer relationship management project with Sebal which will see 14 separate customer databases converted into a single data warehouse with a common front end across the majority of its business by December 2002. This enables call centre staff and patrols at the road side to be provided with more information on the members details, for example, on the type and make of car, records of recovery services provided and insurance details. This allows cross-selling of RAC products and services, and provides a quicker and more flexible service for customers, for example, members' details can be accessed by reference to a single item such as a telephone number and long standing customers with a low call-out record could be allowed to exceed the call-out limit in a single year.

5 RAC have also introduced new working practices to improve their level of operational efficiency and customer service provision. This has involved changing the terms and conditions of patrol and call centre staff who deal with 2.4 million call outs a year. It has enabled the workforce to be reduced by 100 whilst increasing their productivity. This has led to considerable cost savings. Using more sophisticated resource planning systems for operations' colleagues based on annual hours, has enabled the RAC to cope better with daily, weekly and seasonal fluctuations in demand for roadside assistance.

How were these improvements achieved?

6 RAC adopted a customer centric approach to become more intelligent about what customers want. This involves:

- **undertaking development and testing before passing systems onto operational managers**. For example, the new rostering system was established before the RAC rolled out the new command and control system;
- **using computers to improve services and productivity**, for example, to enable automated allocation of patrol jobs once the call centre staff has received a call. The command and control system enables call centre staff to give customers more accurate information about when help is likely to arrive and provides patrol staff with better information before they arrive, for example, on the likely cause of the fault and the car details. It includes questions for call centre staff to ask customers to identify likely faults which is then passed on to patrol staff so they can arrive at the road side equipped to deal with the problem. Call centre staff can also provide customers with updated information on the progress of jobs. The information collected also gives RAC better information of customers and the services they need, the level of service they require so new services can be developed and existing services improved; and
- **entering into partnerships with other companies with similar customer markets to allow for development of services**. Sometimes the RAC brand is used to market the product, in other cases RAC provide the service using another company's brand such as Audi. It also means developing new ways of delivering services, for example, the Internet is the fastest growing area of RAC business. Increasingly new members are introduced on the Internet and RAC intend to develop the range of services provided.

10 Oracle

This case study shows how Oracle has used IT to deliver £0.7 billion of efficiency savings and increased customer satisfaction. It also shows the benefit of having a clear target with measurable benefits, strong leadership, and top management commitment to deliver improved productivity, efficiency gains and service improvements by making full use of Internet technology to simplify the business. For example, by global consolidation of databases, widespread use of its own integrated suite of e-business applications and adoption of standard business processes worldwide, Oracle has transformed its business operations and customer services.

Lessons learned

i) Delivering the improvements in services and efficiency requires **strong leadership, clear targets and buy-in from management, employees, suppliers and customers**. To obtain that buy-in, incentives are required such as quicker more accessible services for customers, savings in transaction costs for suppliers and better information for management on the organisation's activities.

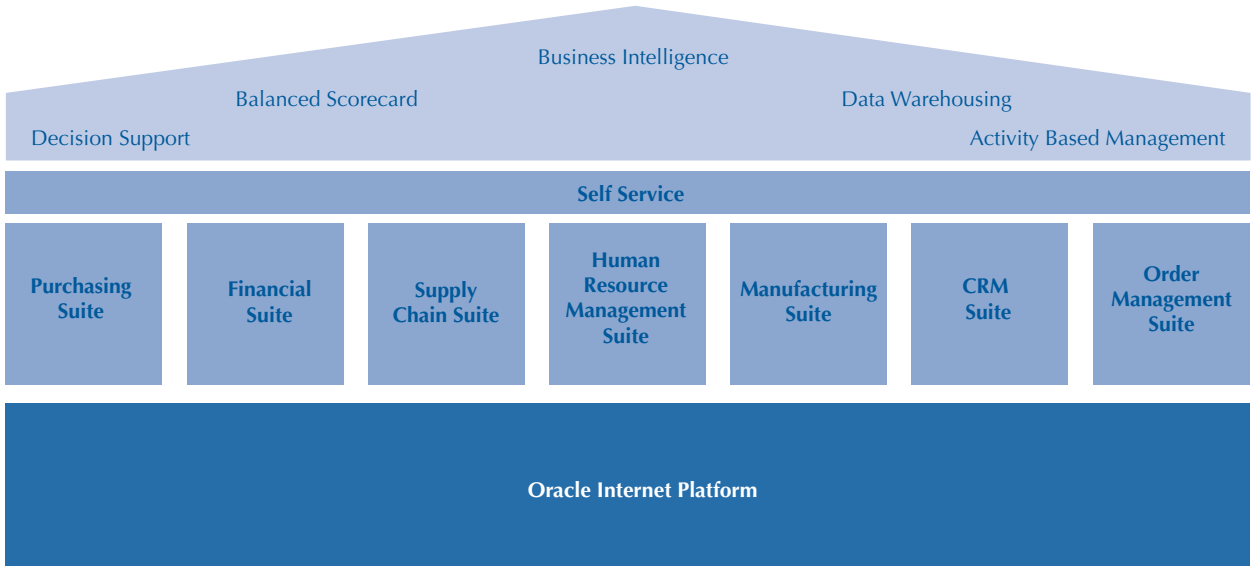
ii) **Significant efficiency gains have been obtained by using Internet technology** to modernise, streamline and standardise business processes and services, for example in gathering business intelligence about customers and suppliers.

iii) **Customer relationship management has been improved by better recording and monitoring of information on customers' demand for services,** their views on the quality of service obtained and on new services. This has enabled Oracle to better understand the dynamics of the market place in which they operate and provide a more personalised service to individual customers.

iv) **Clear and measurable efficiency targets provide an incentive for management and staff to implement the changes** in working practices and IT systems and provides senior management with information to track progress and focus resources on developing areas which have provided efficiency gains such as electronic procurement.

v) **Internet technology has provided opportunities to deliver new services and to serve customers in new ways.** For example using Internet technology, Oracle have developed a 'self-service' help site for customers to resolve their more basic software problems without recourse to initial direct contact with a member of Oracle's staff. This enables specialist staff effort to be focused on the more complex cases that need their involvement, leading to higher overall levels of customer satisfaction.

e-Business Solution



What has Oracle achieved?

1 Oracle is a worldwide corporation providing IT software and support to the private and public sector in 145 counties with over 40,000 staff (4,000 in the UK) and with turnover of US $11billion (£7.8bn) a year. Oracle's Chairman (Lawrence J. Ellison) in 1999 set Oracle the target of making $1 billion (£0.7bn) of savings in 2000-01 from harnessing the benefits of the Internet. This target was achieved (audited by Harvard Business School) and has been raised to $2 billion (£1.42bn) for 2001-02.

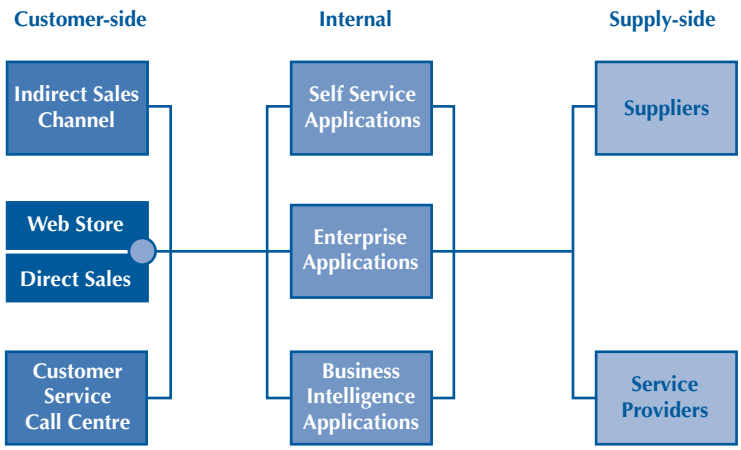
2 The savings have arisen from:

- consolidating IT $200m (£142m), such as the reduction from over 100 e-mail servers worldwide to two.
- improved sales of $550m (£392m) through the availability of self-service applications to both customers and internal sales staff, leading to increases in sales force productivity of between 10 per cent and 20 per cent.
- better procurement of $150m (£107m) by the adoption of electronic procurement applications to automate internal transactional processes, reduce contract leakage, and free up procurement professionals for more strategic sourcing activities.
- internal efficiencies of $100m (£71.4m) through the deployment of web-enabled self-service applications for such functions as personnel records, training, travel, expenses and pay.

How were these savings achieved?

3 To achieve these savings Oracle has used **technology to change the way in which it deals with suppliers, customers and employees:**

Oracle e-business Blueprint



4 **Technological change:** Oracle has adopted Internet technology throughout the organisation for internal business transactions and for external dealings with customers and suppliers, moving data and applications to a single data centre and consolidating existing databases. For example:

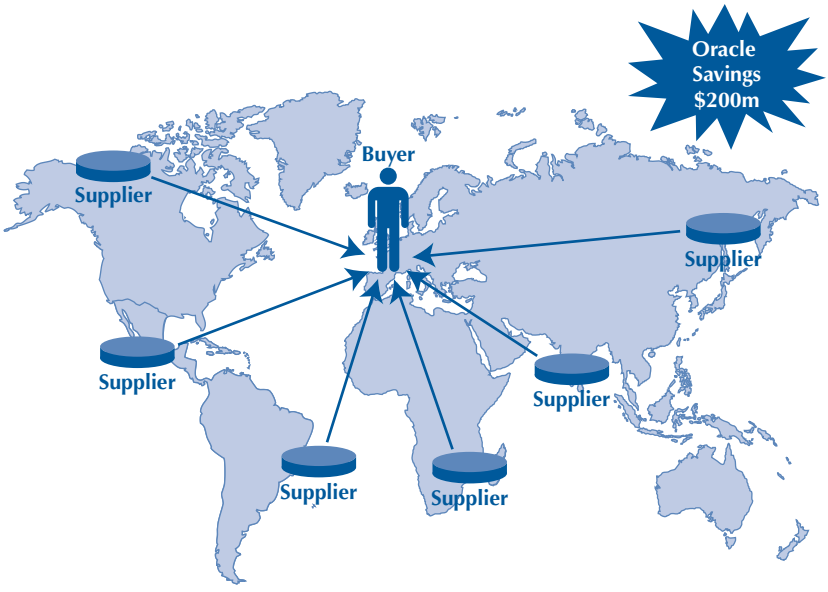
- 100 separate sales databases across the organisation have been replaced by a single database which means fewer computers, less software, fewer people to manage the database and better, cheaper information on sales;
- three regional data centres have been consolidated into one global data centre enabling quicker updates of software and ensuring more accurate and consistent data for management information and analysis;
- consolidation of business operations by creating shared service centres for accounts, purchasing and human resources to exploit the advantages of economies of scale and consistent business practices to provide more accurate transactions at a lower cost - Oracle can produce a cash flow statement for the whole organisation within 10 minutes.

Oracle has adapted the way in which it deals with customers, suppliers and employees to harness the benefits of Internet technology

- on the selling side, Oracle provides its services and products using the Internet - 85 per cent of customer support enquiries are resolved by the customer using the self help facility on the Internet (saving Oracle $250m), and the remaining 15 per cent are resolved by Oracle staff using their own Customer Relationship Management software. The greater use of the Internet for sales has improved in one year the productivity of sales' staff by between 10 and 20 per cent, enhanced customer satisfaction (up from 60 to over 90 per cent satisfaction with the service delivered) and increased sales (by $300m).

- Internet selling has provided Oracle with better customer intelligence data - Oracle can target potential customers who browse the organisation's website to send them information on products and monitor activity levels on Oracle's Website to measure the impact of marketing campaigns and help the development of new products and services.
- on the supply side, Oracle has used the Internet to purchase goods more competitively at lower cost using techniques such as 'reverse auctions' - this is where the purchaser places the quantity and specification of the goods they need on the Internet and manages the auction using the same medium. Electronic procurement also has improved the organisation's purchasing intelligence to better manage supplier selection, improve supplier performance and identify cost reduction opportunities by rescheduling suppliers work. Oracle also use electronic catalogues, electronic documents and payments to drive down transaction costs for Oracle and their suppliers. These have streamlined the purchasing process and reduced annual transaction costs by $6m (£4.2m), improved procurement staff productivity by 20 per cent and led to procurement savings of around $40m (£28m).
- employees use the Internet technology to report expenses, seek annual leave approval and make travel bookings - electronic expenses reporting has saved Oracle $10m (£7m) through reduced processing costs of 60 per cent and increased employee productivity in the accounts payable department by 25 per cent. Any extra costs of employees completing their expenses claim forms are assessed as minimal as the applications are easy to use and not labour intensive.

Reverse-Auction - Make suppliers compete for your business



Result: Buy goods more competitively at lower cost

Source: Oracle

11 BT Group (BT)

This case study shows how BT have used IT and electronic technology to improve business operations and services and the key lessons drawn such as the importance of tracking the savings achieved and business cases justifying spending on new technology needing to have a realistic view of customer take up.

Lessons learned

i) **To make effective use of modern technology for internal efficiency it is important that staff are connected to the IT system.** For example, adopting modern technology throughout the organisation has enabled BT to automate its travel and subsistence system. Employees now complete an electronic version of the claim form if they want to claim for travel expenses. This provides quicker and more accurate submission of claims, faster payment and has increased the productivity of staff processing travel claims and reduced costs.

ii) **Cost savings from adopting Internet technology can be overstated and need to be carefully assessed.** Adopting new technology changes the way businesses operate and removes some costs. Care needs to be taken to assess the extent to which costs are transferred to other parts of the organisation, to other organisations such as suppliers or to customers. Unless this is taken into account the cost savings may be overstated. During the early stages of deployment, the cost of using the web system for the employee may be higher than the time taken to fill out the manual form, thereby resulting in a transference of costs from the central function to the user. Careful design is needed to speed up the learning time for the user, so that they can start to benefit from the web-based functionality - for example, through the use of stored fields and also through the more rapid settlement of claims.

iii) **Adopting new technology often requires a change in procedures, controls and organisational culture.** The level of checking of electronic travel claims to travel receipts and vouchers is lower than under the manual system when vouchers were submitted at the same time as the claims. Internal controls changed from a situation where every invoice was checked to a random audit process. The system has more of a trust relationship built into it, and betrayal of this trust is treated as a very serious issue.

iv) **BT track the savings achieved from introducing new technology.** IT spend of the Business Divisions within BT is tracked by each of the Lines of Business. The projected savings are identified in the Business Plans and the realisation of these savings is tracked by the business management systems. Each of the Lines of Business has a Systems Strategy which links the Business Strategy to the IT activity and aims to ensure that there is an optimal alignment between the IT investments and the Line of Business priorities.

v) **Having the right incentives is important to encourage people to use Internet services and stay connected.** One way is to link unrelated services to increase the take up. So, for example, by providing content of interest to a particular group of people, it is possible to significantly increase their overall usage of the web technology, thereby increasing the effectiveness of the business web tools which have been deployed.

vi) **Internet technology provides quicker, more accurate and complete information for management about business operations and activities.** BT uses IT to obtain and share information about customers, suppliers and products. For example, information about the reasons why bids for new work are successful or unsuccessful are shared on BT's Intranet. For this knowledge sharing application to work optimally, incentive schemes related to sales need to be rethought. This is a good example where the deployment of web technology will only be really successful if it is accompanied by a change in business models and business processes. It is simply not sufficient to automate existing processes.

vii) **It is important that services provided on the Internet are subject to rigorous testing before they go live.** This should include consideration of the devices, which customers will use to access the service - personal computer, mobile phone, digital television and the ability of the system to deal with upgrades in technology such as new access devices. Web-based services need to be intuitively usable, and need to be robust.

viii) **The business case for justifying spending on new technology needs to take a realistic view of customer take up.** Consideration needs to be given to:

- customer needs and the intended purpose of the service;
- educational, information, transaction, communication, knowledge sharing;
- the probability of various customer groups taking up the service;
- the cost associated with developing, implementing and sustaining the service;
- the frequency which individuals or businesses will need to use the service to make it viable.

BT have used community user groups to get a better understanding of customer needs.

ix) **The speed at which users will initially become comfortable about using the system regularly often determines whether a service will be successful or not.** Monitoring the performance of Internet services requires indicators which look at customer satisfaction levels and frequency rates. For example, the satisfaction level might be high but the frequency which the service is used may be low, indicating the service is failing to attract customers from established forms of service delivery. Alternatively, the frequency rates may be high but the satisfaction levels low indicating a strong interest in the service, but disappointment about the quality or cost of the service provided.

BT is a major communications company. Its main business centre is the UK, but has operations globally, with significant business operations in Europe and the US. With in excess of 100,000 employees and tens of millions of customers, BT has pursued a policy of providing or enabling access for all to web and IT technology, to enable and deliver improvements in operations and service.

What improvements in services, business operations and efficiency have BT achieved by adopting new technology?

1 IT and e-technology has been deployed across the BT businesses for some considerable time. Notable areas are Workforce Resource Management, Billing and Invoicing Systems, Operational Management Systems, Finance Systems and Internal Business Process Systems. In all of these examples, the application of IT and e-technologies has resulted in the transformation and automation of the business processes, resulting in reduced overall costs.

How have the efficiency savings been achieved?

2 In the Resource Workforce Management System, jobs are despatched automatically to the engineering field force, matching availability, geographical location and skills against job needs. With a workforce numbering into thousands and a high volume of field activity, this has reduced the overall cost of job allocation administration and has also significantly improved the efficiency and effectiveness of the field workforce. Another example is the use of IT and character recognition technology to automate the handling of payments. Internal Business Process systems have helped reduce the proportion of administrative support staff, thereby reducing overall costs. Sales and Customer Service Systems have reduced the cost of sale and the cost of customer service activity, resulting not only in reduced unit costs but also significant improvements in the quality of customer service.

12 AWG (Anglian Water Services)

This case illustrates how Anglian Water Services, the regulated UK Water utility and part of AWG, an infrastructure management company, has implemented e-procurement to improve supply chain management, reduce costs and enhance the service for Anglian Water buyers.

Lessons learned

i) Absolutely critical to have a clearly defined e-procurement vision and supporting strategy in advance of any implementation.

ii) Prior to introducing e-procurement Anglian Water liaised with its key suppliers to ensure their support.

iii) Develop a clear business case for e-procurement and consider security issues early in the project.

iv) Be realistic about benefits and ensure no double counting. Revisit the business case as the project progresses and the business environment changes.

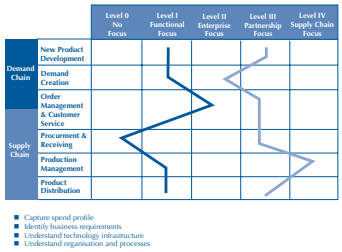
v) e-procurement is a business change project therefore the organisation needs good information about the volume and value of existing purchases of goods and services before implementing e-procurement or indeed any procurement project.

vi) Consolidation of procurement approaches and improved procurement practices allied to strategic sourcing can be implemented before e-procurement is used.

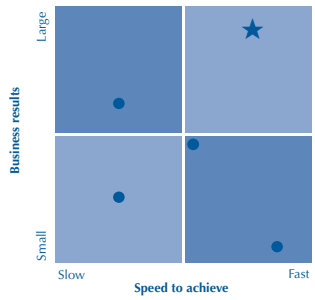
How was this done?

- Anglian Water spend some £300m a year on the procurement of goods and services. Prior to introducing e-procurement, Anglian Water implemented a strategy to centralise 80 per cent (by value) of procurement, introduced SAP Financial and e-procurement systems to enable the business to raise requisitions electronically, authorise purchases and issue orders electronically to the suppliers, and introduced a corporate procurement card. These measures provided better information about their procurement activities and enabled Anglian Water to reduce transaction costs and make savings in the cost of purchasing low value items (under £5,000). The procurement strategy was supported by bringing in new staff to raise expertise in current procurement practice.
- having developed a better understanding of its procurement needs, Anglian Water joined the Achilles market place in 2001 (its website is http://www.achillesmarket.com) which in the medium term will enable Anglian Water to explore joint initiatives with other utility organisations and in the short term allows it to trade electronically with 21 key suppliers using catalogues of key goods. This has provided a number of benefits:
  - reduction in transaction costs of around 60 per cent from moving to electronic transactions, for example, from requisitioning through to order processing and placement;

Current State Assessment



Improvement Possibilities

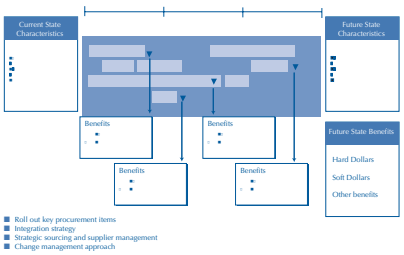


- Common processes
- Commodity spend savings targets
- Potential technology solutions
- Speed and ease of implementation

Case for action

- Quantify benefits
- Time to benefits
- Select solution
- Identify costs
- Create business case

Implementation Plan



- improved collaboration with other organisations and suppliers within the Achilles market place will provide opportunities for harmonising specifications amongst other initiatives to remove cost and waste from the overall supply chain (for example inventory, logistics and forecasting) and the whole procurement cycle (for example upstream prequalification and downstream performance reporting);
- better information on procurement activity improves control, for example, over payments and purchases, on suppliers' performance and what the business is procuring on a delegated basis to reduce maverick purchasing off agreed contracts;
- longer term efficiency gains through standardised procurement practices and harmonisation of inventories which reduces duplication and ensures buyers get the right product as all items are bought from the same electronic catalogue;
- Frees buyers and procurement staff to focus on strategic procurement, supplier management and, for example, to increase suppliers' compliance with regulations and quality standards;
- electronic procurement has led to the creation of new roles within the procurement function dealing with catalogue management and maintenance to ensure they are up-to-date and to suppliers having to provide standardised electronic catalogues. Anglian Water devoted time and resources to convincing users and suppliers of the benefits of e-procurement. This involved training staff using demonstration labs to give users hands on experience of the new system before it was implemented and holding discussions and workshops with key suppliers.

13 British Gas

This case study shows how British Gas has used IT to improve financial performance and customer service and the benefits of focusing on improving levels of customer service and reducing internal inefficiencies. This was done by senior management taking a long term view to the improvement of company performance. For example, through use of software technology to reduce its overheads and improve its purchasing activities, British Gas Services has turned itself into a profit-making business.

Lessons learned

i) Delivering improvements to services and internal efficiency savings requires senior management to take a long-run view.

ii) Significant efficiency improvements can be achieved through the use of software to integrate and standardise business processes and services and devolve responsibility, for example, individual managers are able to access financial information and obtain clearer and more timely financial information resulting in better decision-making.

iii) Consolidating purchasing has resulted in better customer relationships, reduced prices and reduced stock-holding requirements.

iv) Maximising the benefits required not only the use of technology but also effective management of changes in working practices involving significant reduction in staff and retraining in new skills.

v) Continuous monitoring of customer satisfaction levels is important in evaluating the impact of changes made.

What has British Gas Services achieved?

1 British Gas Services Limited is a wholly owned subsidiary of Centrica plc (formerly part of British Gas plc before its demerger in February 1997 which created Centrica plc), operating throughout Great Britain to service gas heating boilers and install central heating systems. In 1994 British Gas Services made a loss of £200 million. In 1995, the company implemented SAP software (the software) to assist in a three year comprehensive program of reorganisation.

2 The successful execution of this strategy contributed to a profit of £10 million in 1998 and better use of its engineers enabled the company to offer new services. Improvements have been achieved in the following areas:

- **integration and improved accessibility of financial system.** British Gas Services used the new software to devolve financial control. Individual managers now view their own information on a daily basis and are able to use it in ways that were not possible previously. They have the capacity to drill down on-line to individual purchase requisitions, orders, invoices or payments. This has led to clearer and more timely financial information and improved decision-making at all levels of the organisation.
- **more efficient payroll system with quicker response to queries.** The old payroll system frequently produced errors requiring manual rechecks. The new system has eliminated these types of errors and the need for manual rechecks. Payroll Department staff can now deal with any system changes that need to be made to the payroll system, such as change pay rates for a specific time period. Management can answer questions and correct problems much faster and easier than in the past as individual records are much easier to access.

- **improved staff productivity in accounts payable transactions.** Prior to the introduction of the new software, a staff of over 28 in one of the more effective old regional offices processed 180,000 paper invoices in 1995. In 1998, after the new software had been implemented, the company processed over 700,000 invoices with a staff of 24. This is a 354% improvement in staff productivity.
- **centralisation and rationalisation of parts purchasing and delivery**. The company has been able to consolidate its purchasing functions and reduce its costs substantially. It now has a single warehouse with a single purchasing and invoice payment process. The new procurement process has resulted in better customer relationships and reduced prices. Even though the company now maintains a single national parts centre, many items need not be stocked at all because they are shipped directly from the supplier when needed. The software reads and posts electronic data interchange invoices from approved local merchants. Payment is then automatic as part of previously negotiated arrangements.
- **service levels and customer confidence re-established.** Service levels and customer confidence were affected by the reorganisation of the company culminating in severe problems at the end of 1996. Call centre response times to service calls from customers rose, with some customers not even getting through at the height of the crisis. The company knew that field service response times were rising. Resolving these problems under the new company organisation required implementation of the company's new computer systems. The index the company uses internally to measure customer satisfaction fell approximately 15% between implementation of the software in early 1995 and the end of 1996. Once the new systems were in place and the organisation had adapted to their use, however, the company won back previous levels of customer confidence. By the spring of 1997, both internally compiled indices and public measures showed customer satisfaction levels exceeding previous levels. The company now holds ISO 9000 accreditation, with over two-thirds of the business already accredited. Its approach to using the software is credited by senior management with strengthening the firm's capacity for ordering processes and organising personnel to meet evolving standards of quality.

How did they realise these benefits?

3 Senior management at the company understood that failure to successfully and quickly make this business transition might well mean the end of the business. Previously there was a heavy reliance on clerical, back office functions. Many areas of the business required integrating operations, equipping owners of resources to handle what had previously been front office and back office processes. Prior to the reorganisation, the company had no computer applications that unified its 12 regional operations. The reorganisation required computer systems to handle a number of functions:

- Management and financial accounting;
- Service contract management;
- Field engineer work planning;
- Materials management, spare parts forecasting, purchasing and inventory control;
- Central heating installation sales;
- Human resources; and
- Banking.

4 Each of the company's reorganised call centres and administrative units required new computer-based tools. The company's re-organisation of the entire field service operation created the most challenging information systems demands.

5 The company assigned its human resources department with the leadership role in this process even though many of its functions were being devolved to other personnel within the organisation. The company took a number of steps to transform its human resources management. This included entirely revamping its human resources operations, shifting from 13 separate systems to one, reducing staff and transferring functions to direct field and line managers. Managers now handle everything from individual employee records to primary communication regarding both individual and group job performance. Its work was relocated from the existing 102 locations to six and consolidated the responsibilities of 18 training centres to one facility.

14 Implementing e-government in France

Lessons learned

i) Services need to be provided via multiple channels. Departments need to use traditional as well as new technologies and give priority to the channel which best meets user needs for example, telephone applications such as call centres can provide better service solutions than the Internet. This suggests that departments need to distinguish between the different needs of users and diversify access according to the target group.

ii) Users need incentives to use Internet services - the low take up of services by users raises issues about the quality of service being provided and equality - the 'digital divide' - only 35 per cent of French citizens have access to the Internet at home hence the initiative to provide public Internet access points.

iii) There are still a number of cultural, regulatory and legal barriers within government and society to the use of electronic service delivery. For example some civil servants in departments may be unfamiliar with the potential uses of new technology and will need retraining and reskilling. There could be also a resistance to new working methods. Certain user groups such as the elderly may prefer to use traditional service delivery channels.

iv) The benefits of e-government are difficult to estimate because take up of services is uncertain, the benefits from investments in new technology may take some years to be fully realised if take up is slow. As a result some of the efficiency gains expected from e-government may be overstated. This is particularly the case when existing service delivery methods have to be retained. Many groups which prefer not to use new technology, for example, are the citizen users of services such as social or fiscal services where the potential to achieve improved efficiencies are the greatest.

v) The potential benefits from departments sharing information on citizens is constrained by legislation on privacy, which prevents sharing of personal information, provided to one government organisation with another. Even in France where citizens have a unique identification number different codes are used for tax assessment and social security.

vi) The risk of introducing new technology can be reduced if services are delivered using proven established technology and systems which users are familiar with, for example, the smart card used by patients in France when they visit their doctor to obtain reimbursement of treatment costs from social benefit agencies has been extended to other benefit entitlements.

1 In 1998 the French Prime Minister launched a programme to develop e-government services in France. France's programme for information technology for modernising public services has two main streams:

- **to improve public services**, for example, by providing public access to government departments using the Internet such as through public access points in post offices, local administrations, public libraries, moving the State's Mintel services onto the Internet, distributing public information free of charge, making government accessible by e-mail and simplifying procedures and administrative forms; and
- **to improve the operation of public administration** by modernising how the state operates by developing intranet solutions and networks, setting up local information systems, training of staff and updating computer systems.

What has been achieved so far?

2 Two central agencies were established to support and measure the progress and facilite cross-agency links and services and the government set an electronic services delivery target for all administration. The number of government websites has since grown to nearly 4,200 with 1,700 municipalities websites.

3 In October 2000 the government portal www.Service-public.fr was launched which enables citizens and businesses to access public sector information free of charge and guides users to public services. In January 2001 the site had 400,000 pages per month accessed by users. The site will be developed to provide links to regional and local government websites. There are also many thematic and sectoral portals in all the ministries.

4 A range of public services are available on-line such as tax declaration and payment www.minefi.gouv.fr and VAT returns or social declarations for companies www.net-enterprises.fr. Nearly 65 per cent of the most requested forms are available for downloading via the Internet - making government forms available on-line has led to rationalisation of the main forms. At the end of 2001 one hundred electronic procedures for citizens and companies were open.

5 To increase the wider take up of e-government services and address the 'digital divide' the Prime Minister has launched an inter-departmental initiative to create 7,000 public Internet access points by 2003. In October 2001, 2,300 public Internet access points were available.

Internet access points were available

6 In 2001, France spent 840 million Euros (some £546 million) for the development of e-government.