

Transforming the performance of HM Customs and Excise through electronic service delivery

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL HC 1267 Session 2002-2003: 20 November 2003



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Transforming the performance of HM Customs and Excise through electronic service delivery



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John Bourn Comptroller and Auditor General National Audit Office 10 November 2003

The National Audit Office study team consisted of:

Nick Lacy, Richard Gauld, Rob Broadway, Stephen Callow and Helen Noonan under the direction of Jane Wheeler

This report can be found on the National Audit Office web site at <u>www.nao.gov.uk</u>

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TRANSFORMING THE PERFORMANCE OF HM CUSTOMS AND EXCISE THROUGH ELECTRONIC SERVICE DELIVERY

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Photograph of seals supplied courtesy of HM Customs & Excise National Museum (National Museums Liverpool)

Preface

In 2001 Customs started a major IT-based programme to transform their business operations and services. This 'e'-programme is designed to enable new ways of working which harness the benefits of new integrated IT systems and processes to improve efficiency and services and to replace current, ageing IT systems. For example, encouraging businesses to obtain advice and transact online should free Customs' resources to concentrate on front-line activities while improved and more up-to-date information allows better targeting of tax compliance and anti-smuggling activities. The programme also supports Customs' Public Service Agreement (PSA) targets to offer 100 per cent of their services electronically by 2005 and achieve 50 per cent take-up by March 2006.

Customs estimate that their e-programme will cost £327 million to implement and generate benefits of more than £1.2 billion over the period up to 2009/10. As the programme is at an early stage we looked at Customs' progress in developing their e-business strategy and business case and in building the capacity and structures needed to deliver the programme. We undertook a 'health check' of the Department's e-programme to assess whether it is on track and follows good practice. The report identifies wider lessons for other departments implementing major change programmes.

We found that Customs had made good progress in getting their core business areas to accept the change programme and had set clear responsibilities for delivery. The Department have also gone a long way to ensure they have assessed the necessary capacity - human and IT - to deliver the improvements in efficiency and services. Our review of some of the projects already implemented suggests that the wider use of e-technology and new ways of working should improve the Department's performance. Customs have taken action to address some issues surrounding the procurement and management of consultants for the e-programme. They have also negotiated an amendment three years in to a ten-year IT outsourcing contract with Fujitsu to give them sufficient IT capacity to deliver the programme and some of the benefits from implementing the new systems. Customs are refining their business case to develop a detailed implementation plan. Work is already underway to pilot the new electronic VAT return and to introduce a new website. The Department are developing ways to get businesses to use online services.

The National Audit Office study team consisted of Jane Wheeler, Nick Lacy, Richard Gauld, Rob Broadway, Stephen Callow and Helen Noonan. As part of the study a paper was commissioned from Professor Helen Margetts, University College London, which looks at the incentives for encouraging take-up of online services and is available on the National Audit Office website (www.nao.gov.uk). TRANSFORMING THE PERFORMANCE OF HM CUSTOMS AND EXCISE THROUGH ELECTRONIC SERVICE DELIVERY



executive summary

- 1 Customs are in the early stages of implementing a major IT-based change programme to improve services and efficiency. This e-business programme aims to transform Customs' main business areas to make service improvements, improve customer compliance and secure efficiency gains mainly through electronic service delivery. Some of the Department's older IT systems need replacing because the increased demands being placed on these systems are affecting their reliability.¹
- 2 Customs expect to spend £48.5 million during 2003-04 on implementing the e-programme, mostly on existing systems which are critical to the continued operation of the business. They are already making use of new technology to deliver improvements in performance across the range of their law enforcement, tax and business service activities and have targets to offer 100 per cent of services electronically by 2005 and achieve a 50 per cent take-up by March 2006. These delivery targets are only the start, though, as the Department's e-programme is intended to produce step changes in performance and capability in the longer term.



- 3 Customs produced their first e-strategy in October 2000, which they updated in July 2001 to better reflect their aim to become a leading practitioner of modern e-enabled government.² Since then, Customs have developed an e-programme and are now developing new ways of working. They are committed to delivering services in a way that their customers want, encouraging high take-up of these services, and realising the efficiencies that Government should expect from its investment in new technology. Customs plan to publish a further updated e-strategy at the end of 2003. It is important now that the Department work on putting their aspirations into practice and realising the benefits.
- 4 Instead of buying separate IT systems to meet each new need, the Department are identifying the common features in each set of business needs and building new systems around these common features. Given the scale of the changes this is potentially high risk so they intend to implement the programme incrementally through a number of carefully planned stages. These plans are likely to need revision during the programme and to respond to new commitments and services.

executive summary

¹ National Audit Office Standard Report 2001–02 in HM Customs and Excise Annual Report 2001–2002 (CM5671).

² See the C&AG's report "Government on the Web II" (HC 764 2001–2002) for a review of Customs' first and second e-business strategies.

- **5** Against this background we reviewed Customs' implementation of their e-programme, in particular:
 - how e-technology can improve Customs' services (Part 1 of this report); and
 - Customs' progress in developing e-services (Part 2).
- 6 To assess Customs' progress and the extent to which e-technology can be used to improve services we reviewed the e-programme and carried out four case studies (the National Co-ordination Unit which provides improved intelligence sharing to support the detection and seizure of smuggled drugs, tobacco, hydrocarbon oils and alcohol; the New Export System; electronic VAT; and electronic Human Resources). We also compared Customs' overall approach to the implementation of e-technology with that adopted by the private sector and customs and tax administrations in other countries. We did this to test whether UK Customs' approach to delivering e-services is in line with other organisations and to draw wider lessons and assess Customs' progress in making use of new technology. In addition we commissioned PricewaterhouseCoopers to undertake some work on our behalf looking at the extent to which Customs have examined the vulnerability of the e-programme and e-services to fraud and the capacity and capability of the technology proposed under the e-programme to deliver the business needs the Department want. More detail on our methodology is provided in Appendix 1. Against this background we found that:

How e-technology can improve Customs' services

- 7 The development of online services provides opportunities for Customs to tailor services to the needs of different groups such as small businesses or particular trade sectors. A lot of Customs' transactions are already completed electronically. Nearly 67 per cent of VAT revenue by value is received electronically, but 89 per cent of VAT payments by volume are still made by cheque. The significant number of transactions involved means that switching to electronic submission could generate significant improvements in processing times and costs.
- 8 The e-programme is at an early stage and it is therefore too early to assess its effect on service delivery. However, there are clear indications that the wider use of e-technology and new ways of working are likely to transform the Department's performance in their core business areas. For example, the Department can use integrated IT systems to consolidate the information they hold on traders. This should make updating information more efficient and timely, improve the accuracy of information, enable more sophisticated targeting of resources, and secure increased revenue and compliance.

Progress in using new technology to deliver service improvements

9 The Department appear on course to make all their services available online by 2005. The target for 50 per cent take-up of services would mean that Customs have to run both paper-based and electronic systems. In order to maximise efficiency gains, they are aiming for a far higher take-up of e-services which would minimise the necessity of such dual operations. Customs have, however, recognised take-up of the electronic VAT service as high risk, and are developing strategies to encourage customer use. Some delays have already occurred with the e-programme. Now that changes have been made to the PFI IT infrastructure contract with Fujitsu and the programme can proceed, Customs recognise the importance of keeping to their revised timetable as slippage would inevitably delay the realisation of benefits for the Department, such as the additional revenue from improved compliance, and for their customers and put even more pressure on the Department's existing outdated IT systems.

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Customs and Excise

- 10 There have been several changes to the governance arrangements for the programme, including responsibilities and personnel, as Customs have sought to achieve the right balance between the centre and the business areas. But Customs have made good progress in getting their core business areas to accept the change programme and have set clear responsibilities for delivery. They have also gone a long way to ensure that they have assessed the necessary capacity human and IT to deliver the improvements in efficiency and services. Whilst those responsible for managing projects have some experience in this field, it is important that they receive appropriate support. The Department are building up the programme and to implement, use and market the new systems. They have taken advice from and drawn on the experience of the Office for Government Commerce (OGC) and private sector consultants. Our case studies have emphasised the value of OGC Gateway reviews as a means of providing assurance at key stages to help keep projects on course.
- 11 The Department are developing a take-up strategy to encourage greater use of e-services by specific groups, such as small businesses and their agents. Although UK industry's use of the internet is high, the use of online businesses transactions is still relatively limited, particularly among small and medium sized enterprises. Customs' research indicates that 48 per cent of their customers would be willing to transact with the Department electronically the figure is higher for new businesses. Customs are planning to stratify their take up strategy for specific groups (such as new traders) and this may need to be reflected in their targets, for example, a higher percentage of larger firms may be expected to use the e-VAT service than smaller enterprises.
- 12 Getting firms to submit VAT returns online will be a major challenge, not least because paper-based returns are relatively cheap and easy to use. Customs' first attempt to offer an e-VAT return service was unsuccessful mainly because customers had to obtain a digital certificate and there was little incentive compared to the paper-based system. Customs have moved to the use of PIN numbers and passwords and are now seeking to get firms to submit VAT returns online voluntarily by developing a service which benefits firms and by targeting online services at particular groups, such as software and management consultancies. In their take-up strategy, Customs are exploring and developing new options, including the use of marketing, targeting, incentives and compulsion. The Inland Revenue, for example, have offered financial incentives for employers to file their end of year tax returns electronically.
- 13 The Department's IT infrastructure was taken over by ICL (now Fujitsu) from April 2000 under a PFI contract.³ The total cost of the services provided for in the original ten-year contract was £500 million (with an estimated net present value of £398.2 million). At the outset, the Department recognised that further services would be necessary and the original contract provided a mechanism for procuring them at agreed prices. During the initial three years of the contract a series of additional services and contract changes were made which increased the overall value of the contract to £680 million. As the e-programme was developed, the need for further increases in scope was identified and the contract was again amended in 2003. As a result, the total cash cost of the contract rose to £929 million (giving a revised net present value of £631 million). The time needed to negotiate the changes and assess that value for money was maintained resulted in Customs' infrastructure operating at near full capacity during 2003 and delayed the launch of, for example, the new website and the pilot e-VAT service. It should be noted that concerns about entering into inflexible long-term deals in areas characterised by rapid technological change have led the Government to adopt a presumption against the use of



PFI in future IT projects.⁴ The amendments to Customs' contract are intended to introduce further flexibility into the deal so that it can remain effective in such an environment.

- 14 Customs' progress in developing their website since the NAO report on "Government on the Web II" in April 2002 has been slow. They planned to introduce a new website in June 2003, but this has been postponed until November 2003 due to delays in agreeing the amendments to the new contract which in turn delayed the introduction of the new IT infrastructure. The Department are working hard to achieve the November deadline as any further delays would affect the launch of the e-VAT pilot service, which depends on the new website being in place. Electronic VAT will also be provided on a new Business.gov website (www.businesslink.gov.uk). The Department's website is often the first point of contact for new customers. There are other points of contact, such as through Customs' VAT assurance officers who visit a proportion of registered traders each year, which provide opportunities to promote the use of e-VAT to traders.
- 15 Government policy is that "all departments should involve private and voluntary sector intermediaries for e-government services as part of their overall e-government strategy".⁵ Take-up of e-services can be improved by using intermediaries such as software developers, banks and accountants, acting on customers' behalf, to submit returns electronically. This approach has been used abroad and by the Inland Revenue. Customs are working with the private sector to develop software packages which will integrate returns such as VAT into firms' accounting systems.

Developing a clear plan of what improvements Customs expect from the e-programme

- 16 The Department's current e-business strategy was developed in July 2001 and is being updated to reflect new ways of operating within the Department. A new operating model has been developed by Customs with assistance from Accenture and shows all the business processes and capabilities which Customs need to operate. The independent review of the technological solution underpinning the e-programme, which the Department commissioned in 2002, will need updating to reflect this new model. The Department have produced a plan (the 'road map') for implementing the planned changes.
- 17 The Department have identified significant potential benefits in terms of increased revenue and efficiency gains from implementing the whole e-programme up to 2010. However, these benefits may not materialise if important elements such as the take-up of e-VAT returns fall short of the targets. Customs are developing a strategy to encourage the use of electronic VAT and are developing plans to secure benefits from this and other services. Specific priorities, detailed estimates and how benefits will be realised have yet to be established. Analysis of the outline business case revealed that more work is needed in validating the estimates and demonstrating how benefits will be realised and tracked. The Department plan to produce a revised outline business case in November 2003 and a full business case by the end of March 2004.

 HM Treasury (2003) PFI: Meeting the investment challenge.
 Office of the e-Envoy (May 2003) Policy Framework for a mixed economy in the supply of e-government services.

- 18 International comparisons and private sector practice suggest that Customs are developing services in line with their peers. Nonetheless, there are some big risks in a programme of this size and the Department need to consider how these can be mitigated. Customs have developed some short-term contingency plans, for example, to support the e-VAT pilot and the proposed new website, for slippage to the programme caused by the delays in agreeing a new infrastructure contract with Fujitsu. However, they must have contingency plans to deal with any breakdowns in services when new e-services go live to ensure continuity of service for customers. The case study of the New Export System also highlights the need to address the needs of all stakeholders, for example by understanding the impact that data has on decision making in other parts of government. The review of Customs' IT needs. The flexibility introduced into the infrastructure contract should enable the e-programme to respond to any changes resulting from the review.⁶
- **19** On getting sufficient numbers of customers to use e-based services, we therefore recommend that Customs should:
 - Develop and implement take-up strategies for their main online services by focusing on specific customer groups, for example, by developing specific take-up targets for each main customer group. These should be regularly reviewed to ensure they remain effective in what is a fast changing environment. They could also make wider use of incentives to encourage take-up and consider making e-based returns compulsory for certain customer groups. Customs should continue to explore the use of intermediaries to deliver services. As take-up strategies are implemented they should include measures to assess their success in delivering improvements in efficiency and service quality.
 - Learn lessons from their initial electronic VAT returns service, such as the importance of fully evaluating pilot tests to determine whether e-services offer sufficient benefits to encourage take-up and the costs to users of switching from paper-based to e-services.
 - Identify whether there are early 'quick wins' such as the National Co-ordination Unit to demonstrate to customers and staff the benefits of the e-programme. This would help ensure that subsequent products are developed and implemented with reference to the experience of putting accessible, secure and well-used e-services into action. It would also help to encourage wider take-up of e-services.
 - Develop further the links with other government departments such as the Department of Trade and Industry and the Inland Revenue to identify common client groups and develop integrated electronic services. The services that customers want are likely to come from various departments. Customs are, with the Office of the e-Envoy, leading on cross-departmental work on developing links with intermediaries across government and are in discussions with the private sector about the development of software packages to enable traders to submit VAT information without a return form. Customs need to ensure that their programme is scheduled to make the most of e-technology to deliver services across departmental boundaries. They need to identify opportunities to provide an integrated service and, where applicable, combine resources for common ends, for example in work to review customer preferences and in the delivery of services via a common portal such as Business.gov.



On 2 July the Chancellor announced a major review of the organisations dealing with tax policy and administration. He asked Gus O'Donnell, Permanent Secretary to the Treasury, to chair the review and for work to be completed in time to announce initial conclusions and any next steps in this year's Pre-Budget Report.

- **20** On ensuring that the e-programme delivers the planned benefits, we recommend that Customs should:
 - Finalise their plans before any further new electronic services are introduced. This will involve updating their e-strategy, operating model and road map and setting the priorities for the e-programme to determine which systems and services need to be taken forward first.
 - Develop the business case to support the e-programme. This should build on the work already started on understanding the implications of the programme for estates, human resources and procurement and include assignation of clear responsibilities for taking work forward in these areas.
 - Ensure they have systems in place to capture and assess information on benefits realised such as improved performance and on the costs of the e-programme. On benefits realisation, the Department need to strengthen their analysis in this area using sensitivity analysis and regular monitoring and evaluation of benefits against time and cost to keep the programme on track.
 - Commission a further independent review to confirm that the technology aspects of the e-programme are fit for purpose given the developments in the Department's plans and operating model since the initial review in August 2002.

On the Department's approach to the e-programme

- 21 Customs should apply the lessons from our four case studies of previous business-change projects they have undertaken when implementing the e-programme (Figure 1).
 - Lessons learned to date from case studies of four of Customs' business-change projects
 - Thorough piloting and testing of IT projects before roll-out and final procurement of software is a means of ensuring the proposed solutions match user needs.
 - New electronic services need to offer tangible benefits to encourage take-up.
 - It is important to encourage staff to buy-in to the concept of e-business.
 - Baselines are needed to help measure and monitor performance and benefits.
 - Decisions to launch new systems should not be taken before the full cost and timescales needed for implementation have been properly assessed.
 - Projects to improve services cannot be managed in isolation: linkages with other projects have to be clearly mapped and managed.

8

- 22 We therefore recommend that Customs should:
 - Improve their internal control and management of the e-programme in three key areas:
 - strengthening their internal quality management;
 - getting greater continuity for those responsible for taking forward the e-programme; and
 - developing a procurement strategy for consultants and IT suppliers to ensure that new e-services can be delivered as planned.
 - More generally, conduct regular reviews of progress at key stages of the e-programme against the 'health check' criteria developed for the study (Appendix 3), for example, after the first six months of a new service being delivered.
 - Review the costs and benefits supporting the PFI IT infrastructure contract deal as they become firmer to confirm that the deal provides good value for money. This assessment should take account of the sensitivity of the amount and timing of the cost and benefit streams from the e-programme. It should also draw on the enhanced information on IT system and supplier performance that the Department expect from the contract amendment agreed in August 2003.



23 Customs have made good progress in developing their thinking on how benefits will be realised; generating the management information needed to monitor the progress of the various parts of the e-programme; and in assessing customers' potential use of e-based services. The Department are looking at the vulnerability of the e-programme to fraud and the capacity and capability of the technology proposed. Our 'health check' of the e-programme showed that development of the business case and benefits realisation plans are the main areas which the Department need to address (Figure 2).

2 The Department are on track but some improvements are necessary

	Department have no major weaknesses	Basically sound and the Department are taking steps to address minor weaknesses	On track but with one major or some minor concerns about delivery	Some major areas still need to be addressed	Immediate action is needed to keep the programme on track
Approach	✓				
Programme management		✓			
Capacity			✓		
Contingency arrangements			✓		
Efficiency gains			✓		
Procurement			✓		
Take-up			✓		
Benefits realisation				1	
Business case				1	

Source: National Audit Office 'health check' of Customs' e-programme

- 24 We also identified a number of lessons from our examination of Customs' progress in developing e-services which have wider application across Government. These include the need to:
 - secure buy-in to new strategies from business areas within the Department;
 - develop supporting strategies for risk, contingency management, procurement, human resources and estates;
 - develop the business model at the same time as the technical model;
 - have a clear idea of the costs and benefits and when they are going to be delivered;
 - ensure that mechanisms are in place to control and monitor the performance of consultants and IT suppliers; and
 - implement change programmes in incremental steps and allow time to pilot new services before launching them.

Part 1

How e-technology can improve Customs' services

- 1.1 This part of the report sets out:
 - Customs' business and customers;
 - Customs' plans to transform their business and services and the main drivers for that change;
 - the main costs, benefits, risks and responsibilities associated with the change programme; and
 - the lessons learnt from Customs' experience of implementing IT enabled change.

Customs' business and customers

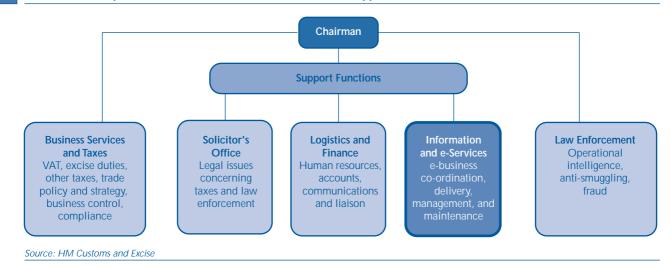
- 1.2 Customs are responsible for collecting indirect taxes and enforcing requirements relating to the movement of goods into and out of the UK. They have a significant volume of business which they aim to transform from traditional paper-based methods to electronic methods to improve delivery and efficiency. During 2001-02 the Department collected gross revenue of more than £150 billion from over 1.7 million businesses and made repayments of over £45 billion. In addition, they processed over 7 million VAT returns and over 16 million import entries and handled more than 37 million business transactions.
- 1.3 A lot of Customs' transactions are already completed electronically. Since 1994 the Department have used electronic data interchange for controlling and recording UK international trade movements via their Customs Handling of Imports and Exports Freight (CHIEF) system. Over half of their VAT receipts by value and nearly all their VAT repayments are made electronically. Although Customs' research indicates that nearly 50 per cent of businesses are interested in submitting VAT returns online, only 4 per cent of UK businesses make online payments to Government.⁷

Customs plan to transform their business and service delivery through a major change programme

- 1.4 The Department are in the early stages of a programme designed to deliver major improvements in service delivery performance and operational efficiency through the wider use of electronic technology. This involves:
 - introducing new integrated IT systems throughout the Department to enable a wider range of services to be delivered electronically;
 - redesigning business systems;
 - streamlining internal processes and working practices;
 - replacing existing IT systems which are nearing the end of their operational life;
 - encouraging customers to use electronic channels such as electronic VAT returns; and
 - developing a new website.
- 1.5 The implementation of the e-programme is overseen by an Information and e-services Directorate which uses consultants to support Departmental staff in key roles such as programme management (Figure 3). There have been a number of changes in the leadership of the e-programme since it started. From May 2003, there has been a single senior responsible owner (SRO) with overall responsibility for delivering the e-programme. Customs' two core business areas - *Business Services and Taxes* and *Law Enforcement* have responsibility for implementing the changes.

3

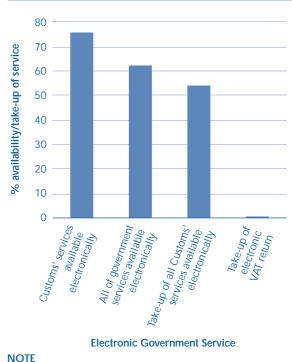
The roles and responsibilities of Customs' core businesses and support services



The main drivers for change

- 1.6 Customs' plans form part of the wider Government agenda to make all Government services available online with key services achieving high levels of use. Customs have Public Service Agreement targets to deliver 100 per cent of their services electronically by 2005 and achieve 50 per cent take up by March 2006. Customs' progress in making their services available electronically and the overall take-up levels compare favourably with that of other government departments. However, take-up of e-VAT has so far been disappointing (Figure 4). The Committee of Public Accounts emphasised in relation to the Inland Revenue (e-Revenue, HC 707 2001-02) that the drive to meet online delivery targets should not compromise the development of rigorous business cases for each service and for the overall e-strategy. The Revenue have moved away from an overall 50 per cent take-up target to more specific targets for each service, taking account of varying rates of expected take-up by the different customer groups concerned (individuals, employers, companies) over the period. For example, whilst the Revenue aim to achieve 75 per cent of corporation tax returns filed electronically by large companies for 2005-06, for small companies the target is just 11 per cent. Customs should consider whether setting specific take-up targets for each main customer group would help them better target their take-up strategy.
- 1.7 Customs aim to create a more flexible organisation which is better able to respond to customer needs and change. The Department target their resources on the basis of risk. E-technology can potentially enhance their risk assessment capability by improving data collection and management and allowing faster and more complex data analysis. They also aim to use new e-technology to replace a number of their older IT systems which are less reliable than Customs would like in handling the growing demands of the current business.





Take-up is calculated as the percentage of transactions for services which are completed electronically.

Source: Cabinet Office, HM Treasury and HM Customs and Excise

- 1.8 Customs plan to create shared systems which meet a range of business needs across different subject areas rather than continuing the traditional approach of managing changes as a series of largely unconnected IT projects. For example, they intend to develop a single Department-wide system for processing payments. Re-using systems for different purposes should make it cheaper and quicker to implement changes. Customs recognise that the O'Donnell review may require their IT systems to be connected to that of the Inland Revenue. Customs consider that their planned IT infrastructure will allow greater integration of systems within the Department or with those of other government departments should that be required.
- 1.9 Customs' equivalents in other countries are implementing similar changes to harness the use of new technology. Although the approach varies depending on the capacity of existing IT systems, there appears to be a consensus that the delivery of electronic services has to be integrated with the redesign of business processes if the full range of benefits are to be realised. There is also a shared perception of the risks involved in major IT change programmes (Figure 5).

5 Perceptions of e-business benefits, costs and risks shared by customs and tax administrations in other countries

Benefits	Costs	Risks
For Customers		
 Better meets customer expectations for services and maintains a good reputation 	May need to introduce new systems to enable electronic transactions, for example, purchase digital certificates	 The IT service solution may not work as well as expected Tablian additional service solution of the service service
Improves services accessibility, for example pay from home; 24/7		 Testing and/or contingency planning before launching e-services may be inadequate
Helps provide incentives to transact online (such as later deadlines; faster refunds; avoiding bank charges; money 'rewards'; faster clearance of imports) which in turn can improve services	,	Electronic services may not be sufficiently joined-up with those of other organisations in ways which meet customer needs
 Could reduce compliance costs for customers 		Insufficient incentives to encourage customers to use electronic services
 Can provide customers with a single, personalised interface and a single sign-on for all activities on the website with a single view of their account (showing previous transactions) and forms already partially completed 		Security breakdowns
Can facilitate the use of intermediaries for example, accountants can batch and send tax returns electronically on behalf of customers		
For the Department		
 Staff savings from reducing paper processing and error correction More complete and timely information 	Costs involved in re-engineering the business to handle e-technology (designing new ways of working to	Insufficient resources or project management/technical skills to deliver electronic services in the
More complete and timely information to target work, for example, real time	accompany the technology)	planned timescale
online tracking of goods for clearance	Piloting and testing	Not making the necessary changes to working practices (ways of working -
 Promotes compliance, for example, by automatically validating returns, automatic reminders and online help 	 Marketing to encourage take-up of e-services 	people and processes) to take advantage of e-business
 Helps fulfil wider national 	Additional security measures	IT suppliers may not deliver on time,
e-Government expectations and targets	Internal and external resources to manage and implement the changes	to cost or to quality standards Specification of needs for new
	Staff training, for example, in how to use the new systems and new ways of working	services and business processes may be incomplete

Source: National Audit Office international survey of Customs' overseas equivalents

part one

1.10 Customs' e-programme is not just about the implementation of new IT systems (Figure 6). They need to have sufficient capacity to manage the many projects underpinning the e-programme and staff must have the necessary skills and competencies to make the most of new ways of working, for example, to encourage customers to use electronic routes. The e-programme also needs to be flexible so it can respond to changes in tax legislation. Some of the benefits of the e-programme cannot be delivered without legislative changes and Customs are taking action to ensure, for example, that legislation is in place by January 2004 to allow accountants to submit returns on behalf of clients. E-enablement is also likely to have wider implications, for example, on human resources and the need for office accommodation. Customs are a major employer. They have 22,500 staff and payroll costs account for nearly half of the Department's £1 billion operating costs. The Department have drawn up a strategy for realising HR benefits from e-business and realigning their workforce.

The costs, benefits and risks of the planned changes

1.11 Customs estimated in their October 2002 outline business case that over the period from 2001 to 2010, the e-programme would cost £327 million to deliver and generate benefits of over £4 billion (a return of 12:1). In 2003 they revised the benefit figures and now estimate that the benefits will be over £1.2 billion (a return of 4:1). Most of the financial benefit is expected to result from increased revenue yield, and is in addition to the £2.7 billion extra revenue yield Customs expect to have collected by 2005/06 as a result of the VAT strategy which they introduced in November 2002.⁹ The Department estimated in the initial business case for the e-programme that they could expect up to £150 million from staff savings. However, the revised outline business case indicates that the savings will be between £100 million and £130 million.

1.12 Most investment in the e-programme is likely to occur in the first five years of the programme and benefits are expected to accrue in the last five years (Figure 7). The Department's IT infrastructure is provided by Fujitsu under a separately funded PFI deal. The PFI deal provides for the management of the Department's desktop and laptop service needs, but excludes their mainframe and application development requirements. Amendments to the PFI contract were made in August 2003 to provide for e-programme IT requirements and this increased the net present value of the ten-year contract from £398.2 million, as calculated when it was originally let, to £631 million at net present value. This represented an increase in cash terms from £680 million, immediately prior to the amendments being made, to £929 million. Customs will need to revisit the estimated cost of the e-programme in the business case in light of the contractual amendments to the PFI contract with Fujitsu.

Main linkages of the e-programme showing the drivers for IT change, and the range of potential benefits

1. Why Change?

IT Change

Government agenda to make all services available online

Need to replace old IT systems which are nearing the end of their operational life

Customs aim for a more flexible organisation better able **to meet change and customer needs**

2. Main Linkages

E-Programme

Changes must be **compliant with legislative requirements** and legislation may need adapting to enable some electronic services

Customs must ensure that the procurement of IT systems and consultants matches business needs and represents good value for money

Customs' core **business areas must have accepted** the concept of e-services to ensure the necessary changes in working practices

The impact of business change on estates must be evaluated

Staff must have the skills needed to support the changes

3. Potential Benefits

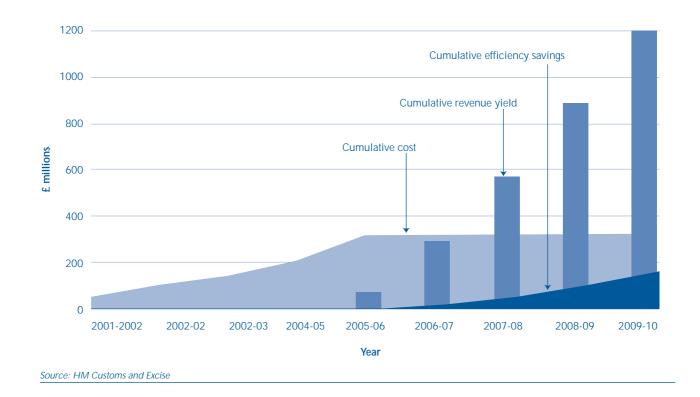
Benefits Management

Customs' staff **should be better equipped** to meet PSA targets, as data and information are more easily accessible and consistent, and less time will need to be spent on routine tasks

Customers should benefit from **improved services and customer focus**

The promotion of joined-up government and **closer working** particularly with the Inland Revenue

part one



Customs estimate the financial benefits from their e-programme will start from 2005 and will eventually exceed the costs of the programme

Risks of implementing a change programme of this size

- 1.13 Implementing a change programme of this size requires Customs to manage risk. Previous reports by the Committee of Public Accounts (for example, "Improving the delivery of government IT projects" HC 65 Session 1999-00) have highlighted the risks associated with major IT projects and drawn lessons from a series of failed projects. The main risk for Customs is that the significant expenditure on the e-programme does not generate the expected benefits in service delivery, revenue collection and efficiency. Delays would further stretch existing systems, but if implementation is rushed and there is inadequate testing of systems before they go live, this could be expensive to correct, highly disruptive for Customs' business and damaging to the Department's reputation. The programme will also need to respond to trends in customer behaviour (such as small and medium sized enterprises transacting online).
- 1.14 Customs aim to deliver e-services in a way that will make citizens and businesses want to use them. Take-up levels will be critical in determining whether efficiency gains and service improvements can be realised. Committee of Public Accounts reports on "Progress in implementing government on the web" (HC 936 2001-02) and "Improving public services through e-government" (HC 845 2001-02) indicated that to achieve efficiency gains, departments would need take-up levels for key

services of more than 50 per cent because significant amounts of their business would still need to use paper and be processed by old IT systems. Customs' action in response to the main recommendations of the Committee is at Appendix 2. It is also important that the Department take on board lessons learnt from their pathfinder projects such as e-VAT and from other government departments' experiences of developing electronic services (Figure 8).

Relevant points from the Committee of Public Accounts' report on e-Revenue

- If significant improvements in take-up are to be promoted, e-services need to be easier to use and offer greater incentives for taxpayers to switch from existing paper-based systems. Users will also need to be confident that e-services are fully secure.
- New systems need to be piloted and tested more systematically to minimise teething problems. Systems already introduced need to be evaluated to ensure that lessons are identified, learned and disseminated.
- The drive to meet 2005 targets should not compromise the need to develop rigorous business cases for each service and the overall e-strategy. These enable identification of the relative costs and benefits for options for delivery to see how benefits can be delivered, to identify and manage the risks, and to monitor delivery of benefits and savings.

Source: Committee of Public Accounts (2002) e-revenue (HC 707 2001–2002)

Lessons learned from Customs' experience of implementing IT enabled change

- 1.15 The Department are implementing the e-programme in stages and some work on transforming their business had begun before the e-programme started. To assess the progress Customs have made and to identify lessons learnt we carried out four case studies of:
 - the National Co-ordination Unit (Case study 1);
 - the New Export System (Case study 2);
 - electronic Human Resources (Case study 3); and
 - the Electronic VAT Return (Case study 4).
- 1.16 Overall we found that good progress has been made in three of the case study areas. The Department have experienced problems with take-up of e-VAT. There were a number of lessons drawn from Customs' good practice and experience of implementing these new services (Figure 9).

Lessons learned from the four case studies

- Decisions about replacing or upgrading IT systems should not be taken until a thorough analysis of the costs and benefits of different options has been undertaken (New Export System and e-VAT).
- Projects to deliver e-services cannot be managed in isolation: linkages with other projects and with other parts of government have to be clearly mapped and managed. Having a system which fits technically with other IT in the Department should enable changing needs over time to be more easily accommodated (New Export System).
- OGC Gateway reviews at key stages in a project's implementation can provide assurance that projects are on course, highlight areas for the Department's attention, and in doing so identify good practice for wider dissemination (National Co-ordination Unit and eHR).
- Getting staff to use e-services can be encouraged through clear communication, training, and fostering a culture of self-help. In addition, staff must be fully trained to offer support to customers in order to encourage take-up of e-services (eHR, National Co-ordination Unit).
- Thorough piloting, testing and evaluation of IT projects before final procurement of software and service launch increases the likelihood that new services match user needs (eHR, National Coordination Unit, e-VAT).
- Setting realistic benefit targets reduces the strain of introducing new projects, but it is important that they are monitored and evaluated regularly to keep the project on course. Electronic services need to focus on delivering benefits to users if take-up targets are to be achieved and efficiency savings realised (eHR, National Co-ordination Unit, New Export System).





The National Co-ordination Unit (NCU)

Customs allocate around 8,000 front-line staff to detecting and seizing smuggled drugs, tobacco, hydrocarbon oils and alcohol. These staff need access to reliable information to carry out their duties effectively. Before 2001, this information was provided by 21 regional Collection Co-ordination Units which were mainly paper-based and utilised ageing technology. In May 2002 Customs introduced a National Co-ordination Unit (NCU) to act as a centralised information service to provide staff with accurate, timely and relevant information and intelligence through the most appropriate communication channels. NCU staff help disseminate the results of investigations and consolidate intelligence coming from different parts of the country.

The NCU has a call centre linked to a networked information system which is available 24-hours a day 7-days a week. The public can use a confidential helpline to give information to the NCU on illicit activities, such as smuggling. It also provides a single point of contact for information sharing that is used by other law enforcement organisations including the police, Interpol and immigration officers.



Development and implementation of the NCU

In June 2001 Customs produced an outline business case for the NCU. Detica provided programme management and technical consultancy from September 2000 to April 2002 at a cost of £1.2 million. In July 2001 Customs procured the IT and technical infrastructure from Fujitsu at a cost of up to £16 million.

The NCU passed through the six stages of the OGC Gateway review process. The last review in March 2003 reported that it had been operating effectively since May 2002 and met its main targets and objectives to time and cost. A post-implementation review conducted by a joint Detica and Customs Internal Audit Division team in advance of the OGC Gateway 5 review in early 2003 found that the NCU was providing an effective national value-added, multi-channel information and intelligence provision to Customs staff, other government departments and the police.

The National Co-ordination Unit (NCU) continued

Costs and benefits

The estimated cost of setting up and running the NCU from 2002-03 to 2005-06 is £24 million (excluding staff costs). It aims to contribute towards PSA targets, for example by saving £10 million of lost revenue through tobacco smuggling each year. The Department have secured annual staff savings of £920,000. The NCU was expected to reduce the cost of using external data retrieval services but the cost has actually increased. Customs consider that this is due to a lack of staff confidence concerning the speed and depth of checks that the NCU would perform.

Take-up levels have been better than forecast. By December 2002, the NCU was handling 18,000 requests for information per month, against the expected 12,000. Because of the inexperience of its staff, the NCU was initially unable to meet demand for services, both in terms of speed and efficiency of request responses, and in June 2002 only 66 per cent of calls were answered within 20 seconds, whilst 15 per cent of calls were lost (answer not provided to caller because of reasons such as technical problems). By November 2002, service levels had significantly improved with over 90 per cent of calls answered within 20 seconds and less than 5 per cent of calls lost. This is within accepted telecoms industry limits. In the future, the Department hope to provide additional services such as an anti-terrorism provision and a real-time intranet service linked to all law enforcement regions.

The New Export System (NES)

Most goods exported from the UK to countries outside the European Union have to be declared to and cleared by Customs (and in some cases, other Departments such as the DTI). Customs receive around 5 million export declarations each year. The New Export System (NES) offers exporters choice in the way they declare exports and makes the service more efficient. It eliminates the need for paper forms (approximately 38 tonnes of export declaration forms were processed each year at Heathrow Airport alone), and allows for quicker clearance. The granting of permission to export is automated as is the selection of declarations for checks using risk profiles.

Development and implementation of the NES

Customs prepared the original business case for the NES in 1997. Development work started in August 2000. Customs set and met a delivery target of introducing the NES at all 26 maritime and 56 inland locations by October 2002 and at 15 airports by 31 July 2003. The original business case was reviewed in October 2001 and a revised plan developed in February 2002. In February, a Customs review identified that for the NES to be compatible with the technical design of the e-programme, it needed an agreed Department-wide security policy, several new technological components such as directory services and operational data stores to be available, a single view of the Customer that could store trader contact details as well as customer preferences and a robust, flexible and scalable web infrastructure. Customs concluded that additional low cost routes for submitting export declarations were unlikely to be in place in time to meet the October 2002 delivery target if the project waited for the implementation of the e-programme. Their review also noted that although the NES had been in development for 18 months, the requirements were still not clearly defined, there was no base-lined implementation plan and there were no current costs estimates.

To meet the October delivery target the Department identified the most critical elements of the planned system, such as improvements to the Electronic Data Capture Service, and developed these critical elements. The system did not necessarily fit with the strategic technical architecture proposed for the e-programme. Customs acknowledge that this was not the most cost-effective way of developing the system as it will in due course have to be aligned to fit the new strategic requirements. However, they considered this to be the best solution given the very challenging timescale of the delivery. Customs did not analyse the costs and benefits of this or alternative systems in detail on the basis that it was not possible and would give an incomplete picture.

The Office for National Statistics (ONS) uses data generated by Customs to produce statistics on the UK's balance on trade in goods and services. Under the NES, export statistics are counted as soon as the goods departure message on a declaration has been updated on the CHIEF (Customs Handling of Import and Export Freight) mainframe system. This message is input by the port or airport inventory system operator once the goods have left the UK. In order to optimise CHIEF processing for exports and to meet the operational needs of both airports and ports, Customs made changes to the way incomplete shipment details are processed. In June 2003, following a query from ONS, it was realised that these changes had meant that trade was not being allocated correctly by month. Accordingly, ONS decided that its published statistics should include adjustments to best reallocate trade more correctly across the early months of 2003. For example, when ONS first released data for April 2003, it reallocated £1.5 billion worth of trade recorded by Customs in April into the period January to March. Similar adjustments were required for subsequent months until Customs were able to implement processing changes to eliminate the problem.

The New Export System (NES) continued

Costs and benefits

The NES was delivered on time at maritime ports by October 2002 and a phased implementation at airports was completed in July 2003. The NES cost £1.9 million to develop, compared to a broad estimate of £2.95 million. In addition to helping meet government PSA targets on take-up of electronic services and replacing the previous paper-based system, which was resource intensive and prone to human error, the NES:

- gives exporters a number of low cost options for making export declarations;
- improves the level of information available to Customs, which should lead to more effective risk targeting of, for example, illegal arms and terrorism;
- helps combat VAT and excise diversion fraud;
- facilitates legitimate trade by ensuring speed and predictability of movement for increasing volumes of international trade; and
- enables exporters or agents to lodge their declarations either inland at approved premises or at the frontier, receiving fast and certain clearance for the vast majority of export traffic.

Customs took action to increase the stability of the infrastructure to minimise NES downtime in May 2003. The Department are using trader feedback to improve the system. The problem with the inconsistencies in the export data identified in June 2003 highlights the need to address the risk of changing the way data are collected by IT systems when the information generated is used by other parts of government. Take-up of the new service has reached 99.5 per cent. The Department sought to encourage take-up by identifying key customer groups and tailoring the system to help accommodate specific needs, for example, by introducing a fast parcels declarations system to reduce delays in delivery.



Electronic Human Resources (eHR)

The deployment and development of human resources is important for any organisation. Customs have 22,500 staff of which 423 were allocated to HR at an annual cost of £10 million, as at 1 April 2003. Customs' HR services have traditionally been delivered in different ways across geographically separated offices. Most of these services are paper-based and Customs currently hold 150,000 hard copy personnel files, more than 6 files for every current member of staff. eHR is intended to create a centralised web-enabled service with the aim of replacing paper-based records with electronic records by 2007. The new eHR system also aims to provide:

- A management system which offers a single source of employee information, interfaces with finance and payroll systems and provides details of all expenditure made by staff.
- Electronic self-service facilities including a staff directory, travel and subsistence, performance appraisals and working time.
- A learning management system which co-ordinates training and provides e-learning: This has already been implemented.
- A technical solution which will enable more competition from a wider range of suppliers when Customs' outsourced payroll service is re-tendered in 2004.



Electronic Human Resources (eHR) continued

Development and implementation of eHR

Customs started development of eHR in April 2000. An OGC Gateway review in July 2001 highlighted a number of areas for improvement including a lack of involvement of end-users, poor project planning, and confusion over interdependencies. After competitive tendering, Customs selected Oracle as providing the most suitable core software component for eHR in December 2001 at a cost of £826,000, including the cost of support. The Department also selected EDS to provide system integration services and a commercial HR management system to replace existing systems. The budget for this component was set at £6.4 million. However, in January 2002, Customs halted the procurement whilst their e-programme was being established. Following a review of the viability of the project in November 2002, procurement went ahead as planned.

A Gateway 3 review in January 2003 found that Customs had taken remedial action on the issues highlighted in the earlier Gateway review, and that the project was "well organised, controlled and on track to achieve success". The review considered the governance arrangements, stakeholder involvement, supplier relationships, and risk management to be exemplars of good practice. The project was however given a red classification, highlighting again the need for the Department to develop a closer understanding and greater monitoring of the contractual relationship between Customs and EDS; update the business case to include contractual costs; and the need to more clearly establish the benefits of eHR together with a detailed plan for how benefits were to be realised. Since that time, action has been taken to address these areas.

Costs and benefits

Customs have spent £3.3 million on eHR to date, and plan to spend a further £13 million. Many of the projected benefits have yet to be realised due to delays in implementation. Customs plan to start the phased introduction of new electronic Human Resource management services from January 2004 with most other services due to be in place by October 2004. By 2005, Customs expect eHR to have generated efficiency savings of £11.8 million and 60-70 per cent of HR functions should be self-service, 30 per cent conducted through the HR service centre via telephone, email and the web, and up to 5 per cent face-to-face through a caseworker.

CASE STUDY 4

Electronic VAT (e-VAT)

VAT registered businesses in the UK are required to provide Customs with a completed VAT return showing a summary of their sales, purchases and self-assessed VAT position at the end of every tax period (the standard period is three months). They also have to pay Customs the VAT collected on sales (less VAT paid on purchases) at the end of each period or, if they have paid more VAT than they collected, submit a repayment claim. There are around 1.7 million VAT registered traders who, every year, submit over seven million VAT returns and pay net VAT of more than £60 billion. Customs allocate some 400 staff to processing VAT returns. A further 6,500 carry out assurance checks to verify that traders have correctly accounted for VAT.

Customs plan to pilot a new e-VAT service from 27 November 2003 to April 2004. It was originally planned for June 2003 but had to be postponed because of delays in agreeing amendments to the Fujitsu IT contract (paragraph 1.12). The new service, which Customs plan to launch at the same time as a new Departmental website, should allow businesses to register for VAT, amend their registration details, and submit VAT returns and payments using online forms on Customs' website. Security will be based on PIN numbers and passwords instead of digital certificates and users will be able to amend their registration details online. Most of the tax authorities in our international survey initially used PIN and password systems for e-VAT and several are planning to use digital certificates.

Research carried out for Customs and Business.gov indicates that businesses in the IT sector are the most likely to submit VAT returns electronically and Customs are targeting the e-VAT pilot exclusively at the 250,000 businesses in this sector. These businesses will be invited to apply voluntarily to sign up to use the e-VAT service. Customs reserve the right to refuse applications to use e-VAT, in which case applicants will have to continue to use the paper-based system. Customs expect that between 5,000 and 10,000 businesses will register to use the new service (less than 5 per cent of the target group). The results of the pilot will be reviewed in Spring 2004 with a view to extending the full e-VAT service from early summer 2004.

Customs are also working with accounting software developers to incorporate a facility to submit VAT information directly from within accounting software without the need to complete a return. The Department are also discussing with a major bank how online VAT services could be incorporated into internet banking and are working with accounting bodies such as the Association of Chartered Certified Accountants to encourage accountants to submit accounts electronically on behalf of clients.

Main risks and how they need to be managed

- The launch of the new e-VAT service is due to coincide with the launch of a redeveloped Departmental website in November 2003. If the new website is not introduced on time, this would delay implementation which would affect take-up.
- Customs plan to cover e-VAT in the business case for the e-programme and have in place a methodology in the e-programme for seeking financial approvals, but they do not intend to develop a separate business case for e-VAT.
- The previous electronic VAT service pilot did not have the capacity to handle more than 10,000 concurrent returns. The new e-VAT pilot service needs sufficient capacity to handle demand from potentially all VAT traders (it is intended to have the capacity to handle 150,000 returns).

Electronic VAT (e-VAT) continued

- Projected take-up levels are not achieved. Research carried out for Customs and the Business.gov programme has shown that businesses are interested in obtaining information online but have limited interest in electronic transactions.
- If the e-VAT service is unavailable users incur a surcharge if they do not submit a paper-based return on time. The Department need to have tested contingency plans to handle breakdowns in service availability and accept the consequences.

Costs and benefits

The e-VAT pilot cost £3.1 million in 2002-03. Customs expect annual savings of at least £3 million if they achieve 50 per cent take-up as manually processing a paper-based VAT return currently costs £1.20 while processing an electronic return costs £0.32, but if take-up is lower the actual savings could be significantly less (PAC 66th report 2001-02). Customs also expect increases in compliance as a result of e-VAT, but these have not yet been fully quantified.



TRANSFORMING THE PERFORMANCE OF HM CUSTOMS AND EXCISE THROUGH ELECTRONIC SERVICE DELIVERY



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Part 2

Customs' progress in developing e-services

Introduction

- 2.1 This part of the report considers the action Customs should take to ensure the e-programme delivers service and productivity improvements, drawing on the results of the NAO's health check (Appendix 3). This part also examines Customs' progress in:
 - developing their strategy and business case for e-enabled services;
 - building the management structure, skills and capacity to deliver e-services; and
 - implementing new e-services and managing the delivery of benefits.
- 2.2 The criteria for the health check were agreed with Customs, the Office of Government Commerce (OGC) and the Office of the e-Envoy. Customs have made progress in each of the health check areas. Some areas are more advanced than others, as illustrated in the remainder of this part of the report.

Customs' progress in developing their strategy and business case for e-enabled change

2.3 OGC guidance requires that Departments embarking on major change programmes should have clear and realistic plans for programme implementation. This should include a business strategy, business case showing the justification for the programme and a plan showing delivery schedules. Customs produced their first e-business strategy in October 2000, and updated it in July 2001 to better reflect their aim to become a leading practitioner of modern e-enabled government. They began detailed planning for the e-programme in October 2001 and subsequently developed an outline business case. They also commissioned McCallum Layton to carry out customer research to help them develop a take-up strategy and Sapient to review independently whether their proposed e-programme technology was fit for purpose and consistent with industry standards and best practice.

- 2.4 The OGC reviewed Customs' progress in April 2002 and concluded that the e-programme was well-aligned with the Department's strategy and PSA targets. The OGC noted that Customs needed to develop more detailed plans and implement more comprehensive programme risk management. Customs have taken action to address each of these areas.
- 2.5 The Department have prepared plans for most areas of their e-programme (Figure 10 overleaf). Some have taken a significant amount of time to produce. For example, the need for a programme blueprint was highlighted in August 2002 in an independent review of Customs' e-programme but was not finalised until August 2003.¹⁰ The Department have started to develop strategies for procurement and a programme-wide contingency plan.
- 2.6 In June 2003 Customs prepared an operating model which divides the Department's processes into five areas:
 - providing services to customers;
 - managing and measuring the direction and progress of the e-programme against planned objectives;
 - making interventions to tackle accidental or deliberate failures to comply with laws and regulations;
 - building the knowledge they need to carry out their work; and
 - providing the support services needed to run their business.

10 Customs' progress in e-programme planning

Planning document	Description	Progress
Business Strategy	Describes the business direction for the future in terms of a vision, strategic themes and a portfolio of planned changes.	Customs produced a second draft e-business strategy in July 2001. Although it was not published, it was reviewed and endorsed by the Office of the e-Envoy in Summer 2001. Customs plan to publish a revised strategy by the end of 2003 which will reflect the Department's new operating needs.
Blueprint	The blueprint is a detailed description of what an organisation looks like in terms of its business processes, people, information systems facilities and its data. It is used to maintain the focus of the programme on the delivery of the new capability.	The need for a blueprint for the e-programme was highlighted in August 2002 and a blueprint was completed in August 2003.
Business case	The business case is used to obtain management commitment and approval for investment in business change by providing a rationale for the investment. It provides a framework for planning, management and monitoring business change.	Customs produced an outline business case in October 2002 and are planning to produce a revised outline business case in November 2003 and a full business case by the end of March 2004. This will include a full discounted cash flow based cost-benefit analysis and a more detailed evaluation of the qualitative benefits.
Programme plan	Defines the programme's schedule for projects and benefits delivery. It is used throughout the programme to track and monitor progress and represents a key control document.	Customs have developed a plan (the programme "road map") which defines the sequence and priorities for implementing the main elements of the e-programme.
Benefits management strategy	Defines how the programme will identify, monitor, deliver and realise the expected benefits. It is used to monitor the delivery of business benefits throughout the programme. There should be a supporting plan for benefits which clearly shows what will happen, where and when the benefits will occur and who will be responsible for their delivery.	Customs have produced a costs and benefits management strategy and aim to produce detailed estimates of costs and benefits, targets and milestones by the end of 2003.
Procurement strategy	Defines the type, size and phasing of the procurement to comply with EC procurement rules, after having made decisions on the most appropriate sourcing option.	The delivery of the e-programme is heavily dependent on the procurement of consultants and IT. Until October 2003, each individual component procured within the e-programme had a separate procurement strategy. The Department brought this together within the framework of an overall procurement strategy from October 2003.
Risk management strategy	Defines how risks will be managed during the life cycle of the programme. Used to plan the way risks are handled within the programme.	Customs have developed a process for recording, analysing and reviewing risks. Risks are recorded on a register at project, sub-programme and programme level. These risks are linked to the Information and e-Services (IeS) Strategic Risk Register, the Corporate Risk Register and PSA targets. Risk controls are incorporated into the IeS Delivery Plan.
Estates strategy	Describes the ongoing management of an organisation's estate.	Customs have produced a draft estates strategy. The realisation of cost savings from reductions in Customs' estate is dependent on the contract with Mapeley allowing for reductions at the appropriate time.
HR strategy	A plan for realising HR benefits and changing the skills, numbers and locations of the workforce.	In October 2002 Customs' e-programme business case identified the need for a robust HR strategy to ensure benefits are planned for and realised as and when resources are released. This could involve the issue of short or fixed term contracts for new employees. The Department produced an HR strategy in June 2003.
Contingency plan	Provides an outline of decisions and measures to be adopted if previously defined circumstances should occur in relation to a specific activity. For example, a system may be completed later than planned or take-up of a new service may be less than expected.	Contingency plans are available at project level. The Department do not have documented contingency plans at programme level for infrastructure non- availability, gaps in software capabilities or shortfalls in the take-up of e-services.

The costs and benefits of the e-programme

- 2.7 In October 2002 Customs produced an initial outline business case for undertaking the e-programme with high-level indications of costs and benefits. They estimated the increased revenue yield from improved compliance to be more than 95 per cent of the projected £4 billion financial benefit. The estimated additional revenue was an aspirational goal which was not based on detailed analysis. For example, the benefits were based on private sector industry standard estimates sourced from Accenture in the absence of proven public sector benefits, and therefore they may not apply directly. The Department have since revised their estimate of the financial benefits to £1.2 billion. Treasury guidelines say there should be sensitivity analysis to test the vulnerability of options to unavoidable future uncertainties.¹¹ The Department have not subjected the estimated financial benefits in the outline business case to sensitivity analysis to show, for example, the effect of variations in take-up levels. Customs recognise the need to complete a more detailed and robust cost-benefit analysis and are planning to produce a revised outline business case in November 2003 and a full business case by the end of March 2004.
- 2.8. The Department are extending the management system developed and used for the e-programme by Accenture to cover all the main streams of IT work and projects (such as those critical to the continued operation of business areas and those needed to maintain and stabilise the existing IT systems needed for the e-programme). It should provide better information to senior management on risks, delivery against key milestones and benefits realised.
- 2.9 The importance of having a cost-benefit analysis and monitoring progress is highlighted by the new electronic-based system for receiving and processing export declarations (Case study 2). This new system was introduced in October 2002 at a cost of £1.9 million. Take-up of the New Export System has reached 99.5 per cent, but Customs do not have details of the financial benefits achieved.
- 2.10 The private sector and international comparisons we undertook showed that it can take a long time to secure a positive return on investments in e-services. For example, Canada, which is widely acknowledged to be at the forefront of e-government, found that e-services have not generated any major cost savings to date. Customs will need to periodically review their benefit projections to determine whether their initial aspirations need to be scaled back in the light of experience.

Progress in building the management structure, skills and capacity to deliver e-services

- 2.11 The e-programme was initially led by an e-Operating Unit, which was set up in August 2001. This was replaced in March 2002 by an e-Business Unit made up of Customs' staff and external consultants brought in to provide expertise. In December 2002, the management structure was again reorganised around new programme management and technical delivery units.
- 2.12 Treasury guidance on high risk and important projects states that they should have clearly identified senior responsible owners (SROs) and project managers with good relevant track records.¹² SROs are responsible for ensuring that a project or programme of change meets its objectives and delivers the projected benefits. Initially Customs appointed SROs to the sub-programmes before appointing an SRO in May 2003 to the e-programme as a whole. Two of the sub-programme managers were fully experienced in programme management and the others were given training in programme management.
- 2.13 Customs have engaged external consultants to obtain specialist skills, experience and advice for the e-programme which were not available in-house. Between November 2001 and March 2003, the Department contracted over 300 staff at a cost of nearly £28 million, of which £11.2 million was for IT technical support and management and £6.4 million for programme management. The Department have also set up arrangements for e-programme staff to shadow the work of the consultants to try and reduce reliance on external skills in taking forward the e-programme.
- 2.14 Customs' internal audit reports and our own review of the arrangements revealed:
 - instances of insufficient documentary evidence to support the need for information systems consultancy services;
 - cases where consultants had their contracts extended without documentary authorisation or recorded changes to their work programme;
 - limited evidence of agreed objectives setting out what the consultants were expected to deliver and no timescales agreed;
 - cases where formal assessment of performance was poor; and
 - few examples of effective skills transfer.

12 HM Treasury (2003) DAO(GEN) 01/03, p2.

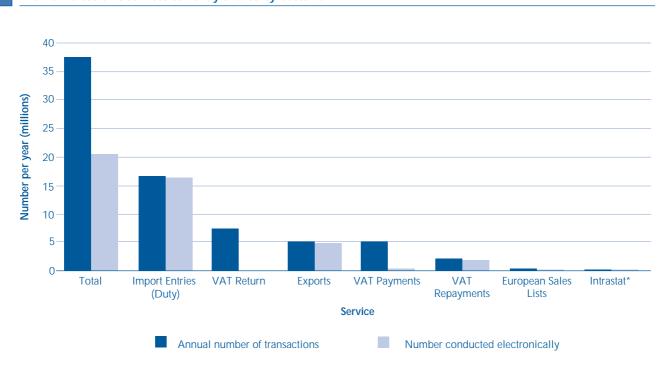
part two

¹¹ HM Treasury (2003) The Green Book: Appraisal and Evaluation in Central Government.

- 2.15 Since May 2003 the Department have taken action to address these deficiencies including issuing revised guidance on selecting and managing consultants and carrying out a review which has resulted in a significant reduction in the numbers of consultants.
- 2.16 The National Audit Office contracted PricewaterhouseCoopers to examine the vulnerability of the e-programme and e-services to fraud and the capacity and capability of the proposed technology to achieve the Department's objectives. PricewaterhouseCoopers' work emphasised the need for a business design 'blueprint' against which the e-programme could be measured, a centralised approach to security, and a mechanism for recording or controlling technical changes. A blueprint has been produced and a senior appointment was made in February 2003 to take the lead on e-security.

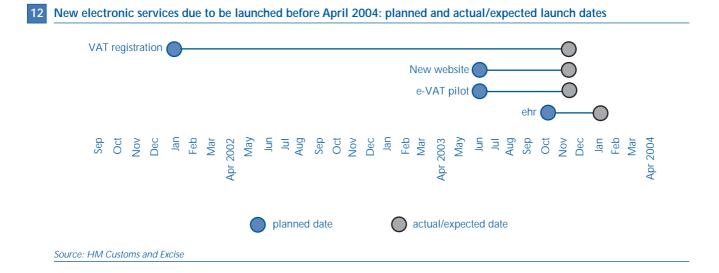
Progress in implementing e-services and managing the delivery of benefits

- 2.17 Customs already offer a range of electronic services and plan to start testing several new e-services over the next few months (Figures 11 and 12), initially concentrating on high-throughput customer transactions such as VAT returns.
- 2.18 The delays in the delivery of some of the services shown in Figure 12 are partly the result of delays in putting the required IT infrastructure in place. A ten-year PFI contract was awarded to Fujitsu (previously ICL) in September 1999 which had a whole-life cost of £500 million (net present value £398.2 million). By 2003, the cost of the contract had increased to £680 million because of changes in Customs' IT requirements. At the time the original contract was agreed, the Department's e-Business requirements were not fully formulated. On this basis the Department decided to specify a standard of service that would allow them to maintain business as usual, while recognising that future enhancements would be necessary to support the emerging e-Business programme. Making changes to the IT had, however, become increasingly difficult under the contract. This was because of the inflexibility of the deal and the existing IT to meet the needs of the e-programme and as a result, from April 2003, the IT infrastructure was operating at full capacity.
- 2.19 Customs were free to approach suppliers other than Fujitsu, but for both operational and commercial reasons the Department considered that this was not a viable option. The Department's options appraisal in March 2003 highlighted the need for infrastructure enhancements to support the e-programme and the need to rationalise the existing IT infrastructure to reduce complexity and rising costs. The Department's



* Intrastat is the system for collecting statistics on the physical trade in goods (ie the actual movement of goods) between EU Member States.

11 The main electronic services currently offered by Customs



preferred option was a contract amendment. Other options such as exit from the current contract and reprocurement or taking the service back in-house were not considered viable as they would create significant delays, higher costs and additional risks to the Department's programme of work and revenue streams. For example, Customs estimated that not proceeding with the contract amendment and terminating the existing contract would put at risk £508 million of existing revenue and a further £472 million from a two-year delay in delivering the benefits of the e-programme in the years 2006-08. The Department also considered that the introduction of a third party supplier would have affected the integrity and value for money of the service provided by Fujitsu. Customs therefore entered negotiations with Fujitsu to amend the PFI contract to allow for the changes in IT needed to deliver the e-programme while maintaining 'business as usual'. Preliminary discussions on the contract revisions had started in July 2001 but discussions on actual contract amendments began in March 2003.

- 2.20 Customs commissioned an independent benchmarking exercise from Compass Management Consulting Limited. This was confined to two aspects of the service, namely computer desktop provisions and the data and telephony service, which could be market tested. This exercise concluded in March 2003 that the proposed amendments were in line with industry expectations and that the deal was competitive. It recommended that the Department should baseline the whole of the contract after it had been signed in order to understand the current position and to demonstrate the improvements in services and fees in future years and to highlight the need for any adjustment to service levels and fees.
- 2.21 During negotiations the Department used Fujitsu's financial model to establish the internal rates of return for Fujitsu and these calculations were independently evaluated by Rothschild. Rothschild analysed the value

for money of the direct cash costs and savings of terminating the contract versus amending it. Rothschild's report in April 2003 concluded that the cost of terminating the existing 10-year contract, at £638.3 million (net present value), would cost marginally less than amending the contract, which they estimated would cost £644.6 million (net present value). This did not include the £508 million of existing revenue that Customs estimated would be put at risk by delaying the e-programme.

2.22 The contract amendments, which were agreed in August 2003, increased the net present value of the 10-year contract from £398.2 million, as calculated at the outset of the contract, to £631 million. In cash terms, this represented an increase in the cost from £680 million, prior to the amendments being introduced, to £929 million. During the contract amendment negotiations, Customs did not update the original net present value calculation made at the outset of the contract and did not have a net present value estimate for the contract which incorporated the cost increases introduced during the first three years of the contract. All the increase in costs is for additional or enhanced services (Figure 13 overleaf). The changes to the contract were made under existing PFI contract change provisions. The new contract is intended to be more flexible and to allow for changes at lower cost. For example, amendments to the contract should make re-tendering easier when the contract expires as the new IT provision is based on industry standards rather than a bespoke system. The amended contract should provide better information to enable the Department and Fujitsu to assess the performance of the IT infrastructure and the underlying costs of any future proposed changes. The contract amendment only covers known requirements. Further unforeseen changes may be needed to deal with, for example, new services which require 24/7 working and it is likely that the final value of the contract will exceed £1 billion as a result. The value of

3 Benefits provided by the amendments to the Fujitsu contract

Extra infrastructure and services

- New resilient internet connection
- New network throughout the Department
- New desktop roll-out
- New hosting data centre for web services
- Improved infrastructure security
- Improved productivity centre and service desk support
- New strategic production and non-production hosting
- Improved integration of Customs and Fujitsu in the delivery and support of services

Source: HM Customs and Excise

the deal will also depend on the extent to which efficiencies and other benefits expected from the e-programme are actually realised.

- 2.23 The Department consider that the amendments will provide secure running of existing systems as demands on the IT infrastructure grow so that no further major amendments will be needed over the remaining six years of the contract. In the context of the O'Donnell review, the Department consider that their IT infrastructure could, if necessary, be connected to the Inland Revenue's systems at no significant additional costs. However, if the O'Donnell review leads to the breaking up of current service provision under the PFI contract, Customs would likely have to reach a negotiated settlement with Fujitsu.
- 2.24 Projects which generate early benefits can encourage interest in e-services among customers and staff (Figure 14). The National Co-ordination Unit (NCU) is an example of a 'quick win' e-enabled service which was designed to improve the co-ordination and provision of intelligence (Case study 1). The NCU was introduced in May 2002 at an initial set-up cost of £11.15 million, and has produced annual staff savings of £920,000 while staff usage of this service has exceeded expected levels.

14 The value of quick wins

Yell.com offer an online directory service for businesses and consumers. They use the policy of 'quick wins' as a means of achieving both staff and customer loyalty. These quick wins are services and applications that can be developed quickly and at low cost but are attractive to users. Yell.com take longer-term developments forward in parallel so that planned outcomes are not put at risk by short-termism or undue pressure on staff to achieve immediate results.

Source: Yell Ltd

Other contract improvements

- Improved service levels
- Improved services credit regime
- Model to predict future charges for new or enhanced services
- Improved contractual clarity
- Introduction of open book accounting
- Introduction of excess profit share
- Encouraging take-up of electronic services
- 2.25 Customs are aiming to achieve 80 per cent take-up of their electronic services by 2010. Take-up of recently introduced e-services such as the National Coordination Unit and the New Export System have been better than Customs expected, but encouraging take-up of electronic VAT returns has proved more challenging. Customs' research indicates that nearly half of those businesses with a website have an interest in submitting VAT returns online. The Department plan to target e-services at particular groups and have initially chosen traders in the IT sector for the electronic VAT pilot. We commissioned Professor Helen Margetts of University College London to look at incentives for encouraging take-up of online services. The possible ways in which Customs could increase demand for online VAT services which Professor Margetts' identified are summarised in Figure 15. Her full report, The incentivization of e-government, is available on the NAO website (www.nao.gov.uk). Customs produced a take-up strategy in September 2003 which draws on the suggestions made in Professor Margetts' paper for encouraging take-up of online services. Customs will need to monitor the performance of the specific take-up mechanisms in increasing take-up and thereby delivering improvements in efficiency and compliance.
- 2.26 Customs are planning to relaunch their website in November 2003. The Committee of Public Accounts have emphasised the importance of monitoring website usage (Progress in achieving Government on the Web, HC 936 2001-02). Customs do not currently have a system which can provide detailed statistics on usage. They have recognised the need for improvement and plan to integrate a comprehensive web traffic monitoring system with their new website.

part

15 The incentivization of e-government

To increase take-up of electronic VAT returns and other electronic services, Customs clearly have to incentivize traders to conduct their VAT affairs online. Professor Margetts' research establishes an analytical framework to ensure that all possibilities for incentivization are being maximised, based on the four generic resources of government departments which are money (the introduction of direct financial incentives or payment flexibility); authority (compulsion of customers or groups of customers to use online channels); time (packaging up online services, saving users organisational time through reduced transaction costs); and information (providing enhanced information and expert advice through website content and intelligent applications). Summarised below are the possible ways in which Customs might use each of these resources as part of a strategy to drive up demand for online VAT services.

Financial Incentivization: using money

- Cash incentives for online filing
- Introducing later payments for electronic returns (around three weeks), capped by size of business
- Guaranteeing that refunds will be paid earlier for electronic returns
- Differential benefits for the number of days the payment is late (this would avoid peaks in demand)
- Additional payment flexibility for new VAT registrants
- Surcharge for paper returns and cheque payments for large businesses

Compulsion: using legitimate authority

- Compelling large businesses to file online, with compulsion for smaller businesses introduced at a later stage
- Compelling some categories of customer to file VAT returns online, in particular accountants and tax consultants (especially if a tailor-made electronic lodgement service were introduced)

Reducing Transaction Costs: using organisational time

- Encouraging online banking sites to signpost Customs as a payee
- Advertising VAT services from online banking sites and other sites commonly used by businesses
- Considering development of a tailored service for accountants and tax intermediaries
- Packaging up online VAT services with other government services via a proper UK government business portal (such as the business.gov website) and reconsidering the registration option
- Partnering with SAGE to offer online VAT as part of the SAGE accounting package

Content Provision: using information and expertise

- Tailoring content provision for specific customer segments, such as those buying and selling in Europe
- Providing customers using the online VAT facility with account history statements, if technically possible
- Offering an e-mail query facility
- Developing an intelligent form that performs VAT calculations, to be completed offline

Obviously, Customs cannot pursue all these options at the same time. But all have been used successfully by either a public or private sector body, most of them are mutually reinforcing and they could all usefully be considered as part of an e-strategy to increase take-up.

Source: Margetts, H. (2003) The incentivization of e-government

- 2.27 Incentives such as financial rewards can encourage take-up. For example, it is common practice in the private sector to offer discounts to customers who transact online. Government Departments have also used incentives to encourage take-up. Customs offered a £50 payment to businesses signing up to use the electronic VAT return service, but this incentive was cancelled out by the £50 annual cost of obtaining the digital certificate needed to use the service. The Inland Revenue have offered employers with fewer than 50 employees filing their end-of-year tax returns electronically an incentive of up to £825 over five years, starting with the 2004-05 end-of-year return.
- 2.28 Customs are working with intermediaries such as accounting software developers, internet banking service providers and accountants to integrate electronic VAT into services provided by other

organisations. The Inland Revenue have used this approach since 1997, when they introduced their 'Electronic Lodgement Service' which enables tax agents (such as accountants) to file self-assessment annual returns electronically on behalf of their clients. Over half of the 700,000 returns received electronically were submitted this way in 2002-03. Intermediaries and tax agents have been important clients for e-tax services in several of the countries included in our international survey of electronic service delivery. For example, the USA's Internal Revenue Service relies heavily on the private sector to offer electronic tax transaction services for individuals. Many countries allow accountants to submit tax returns and payments on behalf of clients, and some offer a range of services for these specialists on their websites. The Office of the e-Envoy has published on its website a consultation report on service provision through intermediaries.

- 2.29 Some EU Member States such as France, Greece and Italy have made electronic submission of VAT returns compulsory for certain businesses.¹³ Customs want take-up of electronic VAT services in the UK to be voluntary. Although nearly 67 per cent of VAT by value is paid by direct bank transfer, more than 99 per cent of VAT returns are paper-based and 89 per cent of payments are made by cheque, reflecting the ease of use of the current paper-based system. Out of the overseas comparator countries we surveyed, Denmark has one of the highest voluntary take-up levels (at 25 per cent) for electronic VAT. The Danish Central Tax and Customs Administration, which has already realised benefits in terms of staff savings, stressed the importance of customer testing of the website and responding to feedback. Some of the factors which may influence take-up, such as existing paper-based VAT returns being easy to use, are shown in Appendix 5.
- 2.30 Non-availability of new electronic services would undermine take-up levels and under current arrangements, could involve a financial cost for customers. For example, an e-VAT user who is unable to submit an electronic return because the service is unavailable, is liable for a surcharge if they do not submit a paper return by the due date (Case study 4). Customs are seeking to minimise downtime for their new electronic services by thoroughly piloting new systems and setting up back-up arrangements.
- 2.31 Under-capacity can undermine the extension of e-services. In March 2000, Customs piloted an Electronic VAT Returns (EVR) service which allowed registered traders to complete and submit returns using an electronic form on Customs' website. Customs considered that the pilot was successful and launched the service nationally in April 2001, but expected that only a very small proportion of businesses would use the service. Only 400 out of the 1,110 businesses participating in the pilot used the full national service when the pilot ended and after two years of operation only 2,700 traders (less than one per cent of the 1.7 million registered traders) have submitted returns via the EVR service. Although take-up was low, the EVR's IT infrastructure would have been unable to cope with a significant increase in demand. Customs commissioned market research into the barriers to and motivations for making electronic VAT returns which indicated that businesses preferred the existing paper-based system as it was simple to use while the EVR did not offer any tangible benefits. Customs recognise that the EVR was not successful and have, in consequence, not been encouraging businesses to use it. They plan to replace it with a more user-friendly service.

The main areas Customs need to address

- 2.32 This review comes at an early stage in implementing the e-programme. Experiences of private sector firms and overseas organisations indicate that realising the benefits from e-services is difficult. To secure service delivery improvements and efficiency gains, Customs should cover the following areas:
 - Capacity IT infrastructure and human resources must be sufficient; this will require careful management of key suppliers and consultants and a human resource strategy.
 - New systems are adequately piloted and tested, and lessons learned from this fed back into the system before new services are launched. If the Department introduce services that have technical problems or do not provide the service that customers expect they will suffer poor take-up, failure to realise benefits and efficiency gains, and reputational damage.
 - Develop robust business cases the Department must work within their resources to deliver a programme of this size to ensure that the money spent represents good value. They should track benefits, costs and functionality and maintain tight controls over procurement.
 - Develop solid contingency plans to support their investment if events do not proceed as planned. The Department have lessened the risk of inflexibility by adopting an incremental approach and tightening their controls over risk management by ensuring that risks are linked to PSA delivery targets. They must also ensure that they have plans in place to counter various "what if" scenarios, such as if takeup is low, changes in departmental responsibilities and closer working.

Appendix 1 Study methodology

Method	What we did
Interviews with Customs staff, and review of Departmental documents	Interviewed senior staff within Customs, reviewed and analysed e-programme related documents, the Department's approach to risk and their strategy for getting customers to use electronic services.
Case studies	Undertook four case studies of how Customs have used e-technology to improve services for customers. These were:
	Electronic VAT Return which enables business to use online forms on Customs' website to register for VAT, update registration details and submit VAT returns and payments.
	eHuman Resources which enables employees to access data or services, such as payroll functions, training and recruitment through the Intranet.
	The New Export System which provides a choice of electronic channels through which traders can submit, amend or cancel export declarations.
	The National Co-ordination Unit which provides Customs' operational staff with access to a centralised information service.
Commissioned academic and consultancy work	From Professor Helen Margetts, University College London, to explore potential incentives to encourage take-up of electronic services.
	From PricewaterhouseCoopers to examine what Customs have done to validate the technical solution, and address the risks of fraud inherent in a change project of this scale.
Progress against recommendations made in previous Committee of Public Accounts reports	Examined the progress Customs have made in implementing recommendations in previous reports on e-government such as:
Public Accounts reports	 Improving Public Services Through e-Government (HC 805 2001-02).
	Progress in Achieving Government on the Web (HC 936 2001-02).
Reviewed Office of Government Commerce Gateway reviews and Customs' Internal Audit reports	Analysed Gateway reviews and other reports on Customs' recent implementation of IT enabled projects to identify good practice, areas that needed attention, and wider lessons learnt.

Method	What we did
Health check of Customs' e-programme	Evaluated Customs e-programme against best practice criteria agreed between the NAO, Customs, the Office of Government Commerce and the Office of the e-Envoy.
Benchmarking against international and private sector comparators	Visited Customs' equivalents in Germany, Sweden, Holland and Denmark to assess their progress in implementing e-services.
	Conducted a written survey of Customs and tax administrations in Australia, Canada, USA, Sweden, Denmark, Germany, the Netherlands and Finland to learn about their e-initiatives.
	Visited four private sector companies in the UK (Yell Ltd part of the Yell Group, Nestlé, Diageo and Ladbrokes) and Royal Mail Group who were undergoing IT change programmes to draw out some generic lessons about initiating major IT change programmes.
	Held a focus group with Intellect (the trade association for the IT, telecommunications and electronics industry) to identify lessons learnt from implementing large-scale IT-enabled change programmes and how Customs could improve their electronic services.
Consulted an expert panel	Invited three experts to comment on our approach and emerging findings:
	Professor Helen Margetts, University College London,Christina Smyth, Office of the e-Envoy,

John Whitfield, PricewaterhouseCoopers.

Appendix 2

Action taken in response to the Committee of Public Accounts' recommendations and Treasury Minutes on e-government

On the benefits of electronic service delivery:

PAC findings	Treasury Minute responses	Department's progress
Departments need to set clear efficiency targets at the outset of IT projects. When improvements are less than expected Departments should establish the reasons why and take the necessary remedial action. ¹	Departments are required to explicitly consider the efficiency savings that could be generated through e-enablement. They will be compelled to demonstrate how these efficiency savings will be realised. ¹	Customs: have set out the expected benefits of their e-programme, are re- working their overall business case to develop more accurate benefit targets, and are developing a
Departments need to establish reliable baselines against which they should assess and report whether their investment in new technology is achieving the expected benefits. ¹	The government will consider the case for developing guidance addressing the appraisal of risks involved in realising the benefits from e-delivery projects, taking into account the take up of electronic services and the subsequent potential to divert resources from traditional channels. ¹	 benefits realisation plan that will enable them to track benefits as they come on stream; have developed a blueprint and road map for the e-programme; are developing a common IT infrastructure to join up services, with benefits for information
Converting conventional processes to internet-based applications will not realise the significant improvements in efficiency which IT can make possible. ²	The Office of the e-Envoy has been working with the Treasury to improve the government's techniques for measuring the efficiency improvements of e-government. ²	 management and service delivery; and are using baselines to track benefits, and made some early efficiency gains. For example,
Departments should not simply convert existing ways of delivering services to electronic applications but consider how IT can be used to enhance and improve services. ¹	Little benefit to the service user or efficiency gains for government will arise if a website is simply put on the front end of an old process. ¹	the NCU has realised £920,000 in savings.

On project management:

PAC findings	Treasury Minute responses	Department's progress
Achieving a change in the way in which departments deliver services involves risks which need to be carefully managed, for example, the need for departments to improve the management of IT projects. ¹	There has been a sustained programme to implement the recommendations in the management of projects of IT-enabled business change based on best practice such as breaking projects down into manageable chunks. ¹	 In line with OGC guidelines, sound governance procedures have been established. There is now a Senior Responsible Owner responsible for the delivery of the programme. Customs have broken projects
Departments should work with the Office of Government Commerce to ensure that weaknesses highlighted in	ice of Government Commerce to on embedding best practice into	down into manageable chunks and assigned responsibility for delivering new services.
Gateway reviews are remedied. ¹		Customs are developing strategies and assigning responsibilities for managing business change impacts across functions such as estates, human resources and procurement.
		 Customs' Project Management Unit, which was set up over

ten years ago, is responsible for

ensuring that good practice and lessons learnt are disseminated.

On electronic service delivery and take-up

PAC findings	Treasury Minute responses	Department's progress
Departments need to concentrate their efforts on identifying and making fully available online those services which citizens are most likely to find useful. ¹	It is important that Departments pay greater attention to transactional services, particularly those that people most often undertake with government and that they are designed in ways which will attract users. ¹	Customs have commissioned market research into attitudes towards transacting electronically with the Department. The results have been used to establish patterns for various types of eventomers and the Department
To focus their efforts on encouraging citizens to access services, departments should develop realistic take-up strategies for online services supported by action plans. ¹	Departments will work with delivery organisations to develop evidence- based take-up strategies which will lead to agreed take-up targets for key services. ¹	 customer, and the Department are using this to inform take-up and marketing strategies. Although insufficient end-user consultation was highlighted in
Departments need to obtain more comprehensive information on their client groups to design electronic services. ¹	Customer research is essential if services are to be redesigned around people's needs. Services should be organised around how people live their lives, not how government structures delivery. ¹	several Gateway reviews as an area of concern, there are also Departmental examples of good practice, such as liaison with a wide range of interest groups. In the international trade arena, trade representatives have been
Departments need marketing strategies which are clearly targeted at the key users of their services. ¹	Delivering attractive services that customers find easy to use is essential for driving take up of electronic delivery. Awareness of services can be boosted through effective marketing of the right services to the right people with the right incentives to promote use. ¹	 made full members of Departmental project boards. The Department are developing their marketing strategy into a comprehensive document, covering in more detail the use of incentives, and intermediaries in promoting
Departments need to monitor the take-up of online services, how often they are used by the public, and their impact on the quality of service in order to refine and enhance their internet-based services. ²	The Office of the e-Envoy developed a Government web traffic monitor to allow all central Government websites to provide traffic performance data for the websites they are responsible for. ² (This has since been cancelled and the Office of the e-Envoy is considering contracting out this service to an external source).	 take up of electronic services. The Department are also exploring possibilities for embedding VAT returns into accounting software. Customs' approach to e-business seeks to take full advantage of the benefits of new technology to both customers and the Department. The Department's medium and long-term plans should change the way people work, delivering beind the people work, delivering beind the accounting beind the accounting beind the accounting beind the accounting the accounting beind t

as better services.
 The Department have not yet implemented a web traffic monitoring tool.

behind-the-scenes benefits as well

On Security

PAC findings	Treasury Minute responses	Department's progress
It is imperative that departments meet appropriate security standards so that personal information cannot be accessed by those not authorised to do so. ²	The Office of the e-Envoy has published security framework documents setting out the security policies for the protection of e-government services. ²	Customs were involved in central discussions with Office of the e-Envoy on security, trust and authentication and piloted the use of digital certificates for use via the
Obtaining digital certificates can be both costly and time consuming. The Office of the e-Envoy should work with the IT industry to identify ways of reducing the time and cost of obtaining	The Government is committed to a market solution to the authentication problem, and is in discussion with industry and a variety of service providers to explore alternative ways	Government Gateway. A lack of success with that approach has led to the Department's continued involvement in in-depth reviews of the subject.
a certificate and increasing the services of provie which they cover. ² avoids s	of providing strong authentication that avoids some of the difficulties with digital certificates. ²	 In February 2003 Customs appointed one person to control the security aspects of the e-programme in line with best practice.
		The Department are developing a new authentication system based on PIN and password, to replace digital certificates for the e-VAT service.

NOTES

1 54th Report 2001-02 Improving Public Services through e-Government HC 845 2001-02 and Treasury Minute October 2002 CM 5636.

2 66th Report 2001-02 Progress in Achieving Government on the Web HC 936 2001-02 and Treasury Minute February 2003 CM 5728.

Appendix 3 Results of Customs' e-business programme health check review

Key

DEPARTMENT HAVE NO MAJOR WEAKNESSES

BASICALLY SOUND AND THE DEPARTMENT ARE TAKING ACTION TO ADDRESS MINOR WEAKNESSES

ON TRACK BUT WITH ONE MAJOR CONCERN OR SOME MINOR CONCERNS ABOUT DELIVERY WHICH ARE BEING ADDRESSED

Some major areas still need to be addressed to keep the programme on track

IMMEDIATE ACTION IS NEEDED TO ENSURE THE PROGRAMME IS KEPT ON TRACK

CRITERIA	COMMENTARY COMMENTARY
Approach: Whether there are clear objectives and responsibilities which set out what the e-programme is expected to achieve in terms of improvements in services and links to key Public Service Delivery targets	 What have Customs done? Customs' approach to using IT enabled change aims to improve services and efficiency and is broadly in line with developments in the private sector. It has received favourable reviews from the Office of the e-Envoy (2001) and Office of Government Commerce. A single Senior Responsible Officer has been appointed for the whole e-programme. Customs are developing an up-to-date strategy and have produced an Operating Model which defines priorities for implementation. This has helped secure buy-in from the main business areas Customs recognise the e-programme is high risk. They are adopting an incremental series of planned changes to mitigate these risks. Other organisations have adopted a less ambitious change programme. What more needs to be done? Ensure the strategy is completed and that important documents such as the road map are monitored and updated in light of changes in the business and its environment.

DEPARTMENT HAVE NO MAJOR WEAKNESSES

CRITERIA	COMMENTARY COMMENTAR
Business Case:	What have Customs done?
Whether Customs have sound overall business cases to support the programme with indicative figures for costs and potential benefits and the timescale for realisation	 Customs developed an outline business case in October 2002, which set out the purpose of undertaking the e-programme, and broadly set out costs, benefits and timescales for delivery. Customs are updating their business case to include detailed costs, benefits and timescales. Risk assessment and contingency plans are being developed. At a sub-programme/project level, business cases are of variable quality, and the Department need to ensure that business cases underpinning the e-programme changes are robust and consistent.
	The New Export System illustrates the importance of ensuring that decisions to roll-out new systems are not taken before the full cost and timescales have been properly assessed. Customs should ensure that business cases and technical analyses are fully completed and kept up to date.
	What more needs to be done?
	The Department are, as a matter of priority, developing a revised version of the business case and must subject costs and benefits to sensitivity analysis. They should then track the actual costs and benefits achieved to ensure the programme is on course to deliver the expected improvements in services

Some major areas still need to be addressed to keep the programme on track.

Capacity:

Whether Customs and their suppliers have sufficient skills, resources and capacity to deliver the programme and individual projects as scheduled and identified main priorities if resources are not available to fund the whole programme in the planned timescale

What have Customs done?

and efficiency.

- In a change programme of this scale, Customs need staff to have competencies, experience and capacity to deliver the programme. Some of Customs' staff responsible for the main sub-programmes have limited experience of delivering a programme of this scale. Customs have provided training and brought in external expertise to get the programme underway.
- Customs staff are being trained to use and promote e-service delivery, and managers need to fully understand the opportunities offered by IT.
- The Department are at the early stages in developing estates and human resource strategies which will underpin the e-programme.
- Customs are starting to prioritise projects in the light of funding and resources received. Other organisations have scaled back their initial plans because maintenance of existing systems has drawn increasingly on the resources available for new systems.

What more needs to be done?

- Customs need to continue their work on understanding the implications of the e-programme for estates and human resources and assign clear responsibilities for taking forward work in these areas, including ensuring there is sufficient transfer of skills from external suppliers.
- More needs to be done to ensure effective skills transfer from consultants to internal staff is taking place.

CRITERIA	COMMENTARY COMMENTARY
Procurement:	What have Customs done?
Whether Customs have adopted the appropriate procurement strategy to deliver the IT, professional advice and support to ensure the e-programme works as expected	 IT related procurement accounted for 95 per cent of Departmental procurement spend in 2002/03. Although Customs have project level strategies, they do not have an overall procurement strategy. They are working to understand better the procurement implications of the e-programme and have commenced work on the development of an overarching strategy for the programme. Lack of evidence that a full needs assessment was completed for procurement of some consultants and that terms of reference, goals and aims were set out in contracts. Performance monitoring of consultants also needs improvement. The Department have introduced revised guidance and procedures to address these weaknesses.
	The Fujitsu contract amendment negotiations delayed the development and implementation of the e-programme because of the lack of sufficient IT infrastructure capacity. The Department signed the revised contract in August 2003.
	What more needs to be done?
	 Complete their work on developing a procurement strategy.
	Clearer assessment of needs prior to engaging and monitoring consultants under framework agreements to ensure the new guidance is being followed. Monitor performance of consultants and ensure clear outputs and timescales for delivery of these are included in the initial contract.
	Disseminate lessons from their experience of the IT outsourcing contract and the implications for e-service delivery for other departments entering into similar long-term contracts.

On track but with one major concern or some minor concerns about delivery which are being addressed

CRITERIA

Contingency arrangements:

Whether Customs have carried out a full risk assessment and collected information to regularly assess risks to programme delivery and have in place workable contingency arrangements if things do not go as planned

What have Customs done?

- The Department have procedures for measuring risk at a project/subprogramme level and undertaken reviews to ensure the IT infrastructure is fit for purpose.
- Customs need to improve the link between risks and PSA targets and have recognised the need for risks at a programme level to be fed to a corporate level and are putting mechanisms in place to ensure this.
- Remedial action has been taken where shortcomings in contingency arrangements have been identified.
- The NCU case study noted how the post-implementation review had raised concerns about the absence of adequate back-up arrangements in the event of a disaster disabling the NCU location. Customs had already introduced an alternative hot-site facility to enable service continuation during an emergency, and disaster recovery arrangements have now been clarified to enable continuation after an emergency.

What more needs to be done?

- The Department need to develop documented contingency plans at programme level for infrastructure non-availability and gaps in software capabilities.
- The Department need to consider the implications of pressing ahead with projects aimed at delivery against e-government targets and the risk that e-services are not fully tested. Adequate testing should be the priority otherwise customers and the Department's reputation will suffer.
- Assess the implications and develop contingency arrangements in the event that e-VAT take-up levels remain low.
- Develop workable contingency plans to deal with breakdowns in e-service delivery to ensure continuity of service delivery for customers.
- Contingency plans are needed to handle any changes resulting from the O'Donnell review of Customs and the Inland Revenue.
- More is needed to be done to assess the risks and develop alternative strategies if resources are not available to fund the e-programme, that key programmes will be delivered later than expected and that take-up will be lower which will reduce the potential for efficiency gains.

ON TRACK BUT WITH ONE MAJOR CONCERN OR SOME MINOR CONCERNS ABOUT DELIVERY WHICH ARE BEING ADDRESSED

CRITERIA	COMMENTARY COMMENTARY
Take up:	What have Customs done?
Take up: Whether Customs have developed workable take-up strategies for their main services based on customer group needs and preferences	 Customs are developing a take-up strategy to identify ways of securing greater use of e-services by specific groups, such as small businesses and their agents. Customs are on course to make all of their services available online by 2005. Customs acknowledge that take-up of e-VAT has been disappointing. Realisation of full benefits of the e-programme requires high take up levels or, in the interim, high take-up by specific user groups. The e-VAT case study highlights the importance of ensuring that decisions to launch electronic services: are based on sound analysis of the costs, benefits and take-up levels; are thoroughly piloted and tested before roll-out; and offer tangible benefits to encourage take-up. What more needs to be done? Implementation of more effective and sharper take up strategies should include measures to assess success in delivering efficiency and service quality improvements. Customs should make wider use of incentives to encourage take up, specific targets for customer groups and take forward the work on the use of intermediaries and agents to promote take-up.

On track but with one major concern or some minor concerns about delivery which are being addressed

CRITERIA	COMMENTARY COMMENTAR	Y
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Benefits realisation:

Whether Customs have mechanisms in place to track benefits achieved and bring forward delivery of important benefits where possible, and in doing so have prioritised their main projects

What have Customs done?

- While there are indications that the wider use of IT and new working methods will improve Customs' performance, many business areas are unlikely to realise benefits for some time.
- The NCU case study provides a good illustration of how setting more realistic benefit targets reduces the initial pressure on newly launched services to perform in line with overly optimistic target levels.
- Identified quick wins through the introduction of the NCU and demonstrated to customers and staff e-programme benefits.

What more needs to be done?

- Customs need to give proper consideration to evaluating what the programme has achieved. This should include systems to capture and evaluate benefits realised.
- Customs should ensure that targets for benefit realisation are realistic and attainable and not just aspirational, recognising that benefits forecasting of e-based services is still relatively underdeveloped.
- Further identification of quick wins could demonstrate to customers and staff e-programme benefits.
- Greater use of sensitivity analysis could help to identify the extent to which benefits would be optimised according to project prioritisation.

Some major areas still need to be addressed to keep the programme on track

CRITERIA	COMMENTARY = COMMENTARY	
Programme management	What have Customs done?	
and lessons learnt:	 Customs' management of IT projects has been subject to a constant climate 	

Whether there are monitoring and review arrangements in place to measure progress against time, cost and quality standards.

Whether Customs have arrangements in place to quality assure and evaluate the e-programme as it proceeds and to learn and feed back lessons from other government departments.

- Customs' management of IT projects has been subject to a constant climate of change but a number of business-change projects have already been successfully implemented and others are being piloted. Customs have made progress in introducing better control and prioritisation of e-programme projects.
- Customs have generally responded positively to feedback from OGC Gateway reviews and acted on the recommendations.
- The eHR case study illustrates the importance of drawing on the experience of other departments/organisations in the public and private sectors who have implemented comparable systems.
- The New Export System case study noted the importance of careful monitoring and management of IT projects to ensure that they remain on track to deliver service improvements on time. The case study also identified that Customs had tended to manage systems in isolation from other e-business projects.

What more needs to be done?

- Customs should ensure that mechanisms are in place to enable their business areas to capture and disseminate lessons learned to avoid, where possible, reinventions of the wheel. This may require some strengthening of quality control arrangements so that results of Gateway and other reviews are taken on board, exceptions to the infrastructure recorded and the risks and costs implications assessed. This could be done by building on the work of the project/programme management division.
- Conduct regular "health checks" of the programme at key stages, for example six months after implementation of a new e-service.
- In consultation with the OGC, Customs should promulgate the lessons learned in initiating a large-scale change programme more widely across government.
- Linkages with other projects should be clearly mapped and managed.

BASICALLY SOUND AND THE DEPARTMENT ARE TAKING ACTION TO ADDRESS MINOR WEAKNESSES

CRITERIA	COMMENTARY COMMENTARY
Efficiency gains:	What have Customs done?
Whether opportunities are being taken to work with other government departments, intermediaries and agents to deliver improved services and efficiency.	 Customs are committed to realising efficiencies from implementing the e-programme. The achievement of efficiency gains is dependent on take-up levels. Customs are developing a take-up strategy which identifies ways of securing greater use of e-services in tax regimes by specific groups such as small businesses and their agents. Customs have engaged with the private sector and other government departments to develop ways of making their e-based services more attractive for customers. The e-VAT case study shows how Customs anticipated cash savings totalling £3 million from implementing this e-service. However, the savings have not yet been realised because of low take-up. The lessons from this are to be taken on board when the new e-VAT pilot is launched in November 2003. What more needs to be done? Customs should put into practice: their take-up strategy; and their discussions with intermediaries about arrangements to submit VAT returns online. Customs should also ensure that they carefully monitor and evaluate anticipated efficiency gains.

On track but with one major concern or some minor concerns about delivery which are being addressed

Appendix 4 Selected references

Cabinet Office	Successful IT: Modernising Government in Action
Department of Trade and Industry	Business in the Information Age: International Benchmarking Study, 2002
HM Treasury	The Green Book: Appraisal and Evaluation in Central Government, 2003
Information Age Partnership	International e-Economy Benchmarking: The World's Most Effective Policies for the e-Economy, 2002
National Audit Office	e-Revenue, HC 492 Session 2001-02
	Better Public Services Through e-Government, HC 704 Session 2001-02
	Government on the Web II, HC 784 Session 2001-2002
	Standard Report 2001-2002 In HM Customs and Excise Annual Report 2001–2002 CM 5671
Office of Government Commerce	Successful Delivery Toolkit
Office of The e-Envoy Public Accounts Committee	UK Online Annual Report 2002 e-Revenue, 52nd Report HC 707 Session 2001-2002
	<i>Improving Public Services Through e-Government</i> , 54th Report HC 845 Session 2001-2002
	<i>Progress in Achieving Government on the Web</i> 66th Report HC 936 Session 2001-02
List of Websites	
HM Customs and Excise	http://www.hmce.gov.uk or http://www.customs.gov.uk
National Audit Office	http://www.nao.gov.uk
Office of the e-Envoy	http://www.e-envoy.gov.uk
Danish Central Customs and Tax Authority (English version)	http://www.toldskat.dk/basic.php?source=/international/english.cnt
Swedish Customs (English version)	http://www.tullverket.se/en
Dutch Customs (English version)	http://www.belastingdienst.nl/9229237/v/e-index.htm
Canada Customs and Revenue Agency	http://www.ccra-adrc.gc.ca/menu-e.html
Australian Taxation Office	http://www.ato.gov.au
United States Internal Revenue Service	http://www.irs.gov/
German Customs (English version)	http://www.zoll-d.de/english_version/index.html
Finnish Tax Administration (English version)	http://www.vero.fi/default.asp?language=ENG&domain=VERO_ENGLISH
Office of Government Commerce	http://www.ogc.gov.uk
The Inland Revenue	http://www.inlandrevenue.gov.uk
UK Online for Business	http://www.ukonlineforbusiness.gov.uk
UK Online Government Portal	http://www.ukonline.gov.uk

Appendix 5

Private sector and overseas experience of introducing e-services

During the study, we met with private sector and overseas organisations who have developed or are in the process of developing e-services to identify lessons and good practice that may be applicable to Customs and wider government departments.

A) Private Sector

- New electronic channels must add value for customers by offering new services, decreased costs, or more efficient services.
- A balance is needed between ensuring that transactions are secure and ensuring that security/ authentication requirements are not seen as overly obtrusive by customers.
- New IT systems must be robust, scaleable and, when dealing with large amounts of transactional data, there must be strong back-up systems so that in the event of a technical failure, data relating to personal details and payment records can be easily retrieved.
- Customer needs should drive website development. This can be achieved through online customer feedback, market research and user-testing.
- It is important to rigorously monitor costs and benefits so that business cases can be revisited to ensure they are still viable.
- A high-level vision is an important tool in directing business change, but must be flexible enough so as not to bind and dictate every project.

- In e-programmes and projects involving a high degree of innovation, initial aspirations may need to be scaled back in light of progress. In the short term, a trade-off between time, cost and functionality may be necessary.
- It is important that mechanisms are in place to provide regular reports for senior management on risks that affect key business objectives and how they are being managed.
- The performance of contractors needs to be closely monitored and evaluated through clear and formal feedback mechanisms. Mechanisms for skills transfer to internal staff are needed to avoid expensive long-term contracts and a 'skills drain' when consultants leave.
- "Quick wins" are an important means of persuading end-users and staff to accept e-services. These should be taken forward in parallel with longer-term plans.
- The front (or most visible) end of e-business change is the key to getting customer acceptance of e-services and "quick-wins" on the website will engage new customers and encourage them to continue to use e-services as the preferred means of contact.
- It is important that customers, staff and business areas accept the concept of e-business, and that each of these groups' needs are fulfilled when designing new IT systems and services.

B) Overseas comparator experiences

- Top management support is crucial to drive the implementation and change.
- Up-front marketing and open communication from early on in the project cycle are vital to ensure staff and customer buy-in.
- Websites (and other services) need to be constantly improved in response to market research and customer feedback.
- Business cases must demonstrate that new systems will generate direct financial benefits and will be cheaper, easier and quicker for staff and end-users. Efficiency gains are not the main consideration when implementing new services.
- Identify and implement "quick wins" to persuade end-users and staff to accept the e-services concept.
- The maintenance of existing systems and compliance with legislative issues must remain a priority. This can divert a considerable amount of resources away from the development of new IT systems.

- IT programmes are best developed incrementally. New services need to be piloted and the lessons learned recycled into future developments.
- Incentives such as cheaper and easier-to-use services are important in ensuring high take-up of electronic services.
- Intermediaries are an important means of encouraging take-up of electronic services.
- Achieving take-up of electronic services is hard if existing paper-based services are easy to use. One way to make services such as electronic VAT more attractive is to bundle them with other related processes, for example, allowing other returns or payments to be submitted using the same website.
- Implementing new electronic services requires efficient customer support.
- Tackle security and privacy issues in the design and development stages to ensure a stable infrastructure for new services.