eGovernment:
International
Best Practices

September 2008

Forfás

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Foreword

Increasing the efficiency and reducing the cost of doing business in Ireland is a key emphasis for enterprise policy in Ireland. It is a priority for many countries also, and there has been an increasing international focus on this topic. The World Bank's Doing Business survey ranks countries in terms their ease of doing business and shows that Ireland ranks well (8 out of 178). Whilst this is the case, Ireland's rank is slipping in the area of online availability of key public services from central and local government.[1]

The rapid development of modern information and communications technologies is having a dramatic impact on all aspects of life, including government. eGovernment has the capability to ensure greater engagement with citizens, higher productivity in terms of reduced costs, more efficient administrative procedures, delivery of higher quality services and provision of better policy outcomes.

eGovernment provides benefits to citizens and the public sector at a number of levels. It enables Government Departments to achieve efficiency improvements in the processing of large volumes of data and other administrative operations. Significant savings can be obtained in data collection and transmission as well as in the provision of information to the population. There is also scope for even greater efficiencies through greater sharing of information within and between Government Departments. eGovernment is also an important driver of public sector modernisation as it can ultimately lead to better quality services, more focus on the citizen, more efficient and effective work practices and improved decision making. Finally, if governments take the lead in the application of IT to their processes and interactions, they can sensitise and encourage those businesses to fully employ the power of information and communication technologies in their own operations.

With a view to contributing to the important debate on eGovernment and its role in increasing the efficiency of doing business in Ireland, Forfás has published this report on international best practice in eGovernment, and the principles to be followed in its implementation,

Martin Cronin, CEO

September 2008

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[1] "The User Challenge Benchmarking The Supply of Online Public Services", European Commission Directorate General for Information Society and Media, 2007.

Executive Summary

eGovernment Landscape

In the context of this report, eGovernment is defined as *"the use of Information and Communication Technology (ICT) by a Government, to exchange information with and provide services to citizens, businesses and other departments within Government, in order to improve the delivery of public services and processes"*.

There is now a far greater acceptance of the integral role that information and communications technologies (ICTs) plays in delivering better and more efficient public services. eGovernment is now 'mainstreamed' into the everyday business life of public services. Gone are the days of IT being confined to the darker vaults of Government. Gone are the days of eGovernment being seen to be a passing internet or website fad. The debate is now wholly more mature, comprehensive and valuable.

Information and communication technologies have and will continue to develop at a pace that requires continuous re-visitation of strategies for harnessing their powers. Leading countries recognise this, they plan for this, and they extract value from this.

This study, undertaken by Capgemini, evaluates the success of international eGovernment initiatives with a focus on the Government-to-Business channel and the implications this has on Government operations. Specifically, areas are examined where acceleration of eGovernment plans internationally has benefited business in terms of improving operational efficiency. This study aims to stimulate debate in Ireland on eGovernment by outlining the progress made by other countries in the area of eGovernment. While this study focuses on the international experience, there have been other recent contributions to the eGovernment debate in Ireland, including especially, the Report of the High-Level Group on Business Regulation, the special report on eGovernment from the Comptroller and Auditor General, and the OECD report on Towards an integrated public service in Ireland. In particular the High-Level Group report has shown that *"with some innovative thinking, the application of new technology and the use of tools to measure costs and benefits, real long-term efficiencies can be delivered"*.

Consistent themes

There are a number of consistent themes that appear in leading countries' eGovernment strategies. These themes emerged also at the Lisbon September 2007 European eGovernment conference and provide three clear areas of focus:

- *Streamline the operations of Government.*

  Reinforce the role that ICT can play in enabling nimble and lean operations. Operations that span the various Departments and tiers of Government. Recognise that technology can offer consistent re-usable information for efficient and sustainable process operations. And that ICT can also provide the management information that supports informed decision making and improvement plans.

- *Provide a single face to Government.*

  The concept of 'one-stop', 'no-wrong-door' to public services. This inclusive customer-centred approach matches the implicit expectations that people have of simple-to-access quality public services – where the power rests more in the hands of the user.

- *Optimise service delivery channels.*

  There is a need to understand the realities of provision costs across the various channels that customers use to access public services; broadly accepted cost ratios are of 10 for footfall, 1 for telephone and 0.1 for the internet. For a fast growing community the cheaper channel is indeed the more convenient. With this in mind, the challenge is to manage front-office provision and optimise channel economics.

Focusing on these themes can help to manage reform in the delivery of public services, to bring services closer to citizens and businesses and to develop a more competitive business environment for enterprises competing in international markets.

At the outset of the eGovernment era, Ireland was recognised as a leader in the area, thanks to progressive programmes and initiatives such as REACH, Revenue On-line, etenders and public procurement and the eCabinet initiative. These programmes received very high profile interest from across Europe and established Ireland as a leader in eGovernment service delivery by the early 2000s.

Five years on, the situation has changed somewhat. The 7th EU27+ on-line services benchmark measurement places Ireland at 17th for sophistication of overall (i.e., business & citizen) on-line services[2]. In relation to on-line availability to businesses, Ireland currently ranks 22nd in the EU.

The rapid development of modern information and communications technologies is having a dramatic impact on all aspects of life, including government. It is creating an environment characterised by demands for timely delivery of information and services and enabling citizens to conduct transactions for those services such as paying tax or claiming benefits. By making intelligent use of ICTs, governments can exploit the huge potential of these technologies as a means of achieving better government. eGovernment has the capability to ensure greater engagement with citizens, higher productivity in terms of reduced costs, more efficient administrative procedures, delivery of higher quality services and provision of better policy outcomes. It also introduces greater transparency and accountability in public decision-making and citizens can avoid the need to understand the complex structures of government in order to be able to deal effectively with it.

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[2] "The User Challenge Benchmarking The Supply of Online Public Services", European Commission Directorate General for Information Society and Media, 2007.

eGovernment provides benefits to citizens and the public sector at a number of levels. It enables Government Departments to achieve efficiency improvements in the processing of large volumes of data and other administrative operations. Significant savings can be obtained in data collection and transmission as well as in the provision of information to the population. There is also scope for even greater efficiencies through greater sharing of information within and between Government Departments. This sharing of information promotes a more horizontal form of organisation than the traditional approach where each Government Department or agency acts independently. eGovernment is also an important driver of public sector modernisation as it can ultimately lead to better quality services, more focus on the citizen, more efficient and effective work practices and improved decision making.

This report assesses a range of emerging trends in eGovernment development. These include technology related trends, such as 'Gov 2.0', inter-operability, and standardisation. They also include important 'setting' trends that include for instance the shift to customer-centric service design, and collaborative (shared) delivery models.

The report also examines the benefits of eGovernment and experiences in developing measurment programmes, and the methods used. In general there is an increasing focus on the need for eGovernment to be seen in a more commercial / return-on-investment context. A number of leading examples of benefits-management approaches, notably in France, the UK, and at a European level, are also highlighted.

Leading countries performance is assessed against a well developed eGovernment framework. The assessment is focussed particularly on three principles; leadership, customer-centricity, and technology.

Within Europe, Denmark, Austria and Sweden stand out in particular, and provide a solid basis for learning. Denmark features particularly progressive approaches to all three areas; Austria's strength is in its technology strategy; and, Sweden in its approach to customer leadership.

On the broader international stage, Canada, Singapore, and the US are seen to be in leading positions. Canada has a mature and advanced approach to engaging customers of public services, evidenced through regular polling of customer opinion and building this into the design and performance improvement plans for their public services. In Canada, confidence in the public sector and its services is high, in many areas higher than the private sector. This is a near unique position worldwide. Singapore is highly advanced in using technology to deliver services better and more efficiently, and are in the process of embracing web 2.0 approaches – to deliver "Gov 2.0" services.

Most of the leading countries have established, and are enhancing, their high impact services – such as tax (and to a lesser extent customs), public procurement, company law, and business statistical reporting requirements. Several of the countries have put particular emphasis on enabling business

innovation and start-ups by targeting improvements in those services that will help free particularly the small and micro businesses from administrative burdens and 'red tape'.

Characteristics of Success

The characteristics of the leading countries examined include:

- strong (and sustained) political <u>leadership and support for rolling out eGovernment</u>;

- clearly <u>attuned to their customers' needs</u>, and involve users (to different degrees) in the service design process. This is still an emerging phenomenon and there is far to go. The slow uptake of ICT leads to the risk that there will be loss of trust in government and increased burden of service delivery, and cost inefficiencies;

- centrally driven and / or funded ICT <u>infrastructural programmes</u>;

- <u>solid governance processes</u> to lead and manage eGovernment initiatives; the key ones being overseen nationally, as is often the case for the overall portfolio of eGovernment initiatives;

- <u>apply rigour to the evaluation of benefits</u> from their key programmes, although it is also the case that this is an area of opportunity in almost all cases;

- an openness <u>to working with the market</u> to determine what the best model for service delivery is, and are more collaborative in implementation – both with their market and public sector partners. Most of these countries however still have opportunities in working closer with cross-Government partners to bring into line policies, plans, and processes with their desired policy objectives;

- What is clear is that these countries are not successful through their actions on technology alone. In most cases there are established <u>competent 'market technology watch'</u> activities to all Public Sector decision-makers remain up to date with changes in the technology market. Few are at the innovative edge of technology in comparison to what, on average, the private sector is employing by way of technologies. There are some notable exceptions in the areas of defence and security. Looking forward, many leading countries may, in fact, be influencing the technology markets considerably more in areas of inter-operability, standards, open source, and some discrete technologies (e.g. identity management). Many are piloting in the public sector what we see occurring in personal computing – and inventing Gov 2.0 approaches.

A number of common themes can be identified as important to the current and future success of eGovernment initiatives in other countries and of relevance to Ireland as it considers next steps to reinvigorate the eGovernment programme including:

- *Customer Leadership* – to truly deliver effective and efficient eGovernment services requires an 'outside-in' view of service delivery as opposed to 'inside-out'. This fundamental change requires a change of mindset and culture, a customer engagement strategy, and collaborative working between tiers of government and across Government agencies;

- *Simplicity* – requiring streamlining of the processes that make up the service portfolio, to make things simple for businesses, and simple for Government and public services delivery;

- *Efficiency* – reducing costs associated with providing public sector services, and reducing the cost for business using those services;

- *Focus* – clear prioritisation of what is most important, which in itself requires clarity of intended vision and strategy;

- *Information Governance* – developing customer trust in electronically provided public services will require demonstrably competent processes and clear accountabilities for governing information, particularly in a world of cross-agency working;

- *Variance Control* – including measuring the quality and consistency of services delivery, which is broader than just standardisation, although standardisation is of itself likely to be part of the strategy (it is however significantly set by Industry and/or above-country bodies). Variance control also addresses the multiple approaches that are too often taken to address common challenges.

Conclusion

In conclusion there are, in principle, two approaches to reap the benefits of successful eGovernment implementation. They are not mutually exclusive, and success can be achieved through either route:

- Addressing "Hearts & Minds" - first relies on political will and the power of the customer; and

- Applying "Management Science" - relies on the logic of operational efficiency and the need to reduce costs.

The former is more variable and fragile yet can have a more powerful impact. The latter balances the benefits of momentum with the risk of bureaucratic inertia. It can establish a clear and more robust programme of capacity building and change. As both can work together the real goal is to achieve a model that incorporates the best of both approaches. The 'setting' of a country is a vital aspect to consider in deciding how best to make choice.

What is clear from the research is that eGovernment is not a matter of technology alone. The discussion has moved on. Solid and sustainable success can only be delivered by putting steps in place to develop leadership, organisational change, a focus on high impact services and a strong customer focus.

In a world that is becoming increasingly 'flat' there is a vital need to foster an environment that makes doing business with and within Government easy and fulfilling, such that businesses in Ireland can grow and increase competitiveness.

eGovernment can play a part in achieving this. From a solid start at the outset of the decade, Ireland has the potential to learn from good practices in other countries as it seeks to optimise the benefits of ICT for business and citizens and economic and social well-being.

Chapter 1 The Irish Context

The European Public Service environment is currently facing a number of global demographic and economic megatrends. The resulting impact on our accepted and established norms will be fundamental and long-term. Three principle megatrends are observed:

- The world's economic nucleus is shifting eastwards, so that within mere decades India's and China's economies will soon be far larger than the EU's. European nations will need to make a special effort to compete on efficiency and competitiveness rather than on economic scale.

- Within Europe the population is aging. This means that in the same timeframe as the eastward shift of economic power, growing numbers of pensioners (one of the most demanding customer segments for public services) will need to be supported by an ever falling working-age population.

- The locus of power is shifting away from the nation and towards cities and regions. There is also a growing importance of multinational, transnational and supernational organisations such as the EU. This combined with full urbanisation and global competition among cities means that increasingly public services will be delivered locally, but regulated super-nationally.

To counter the effects of these megatrends Europe's public services must perform, and thus transform. eGovernment is a key enabler of these improvements.

More efficient and reformed Public Services can support an enhanced and more competitive economy – vital for Ireland to be competitive within Europe, and globally. Ireland currently hosts a number of important global industries. These must be supported to continue to sustain the economy. Existing mature Irish firms must be supported to expand and compete internationally. There must also be an active and innovative market to create new businesses. Quality Public Services are a vital component of this desired vibrant economy.

From a business perspective, it should be possible to receive tailored and efficient services with minimal bureaucratic intervention. Such services should be delivered in an easily accessible 'anytime, anywhere' manner. From a Government perspective, this shift towards self-service provision can enable Government to deliver more with less.

From a strong leadership position in the late 1990's and early 2000s, Ireland's standing in Europe in terms of eGovernment has slipped somewhat, with the provision of online eGovernment services for business falling behind the European average for the first time since measurement began in 2001.

Figure 1: Online service availability for businesses
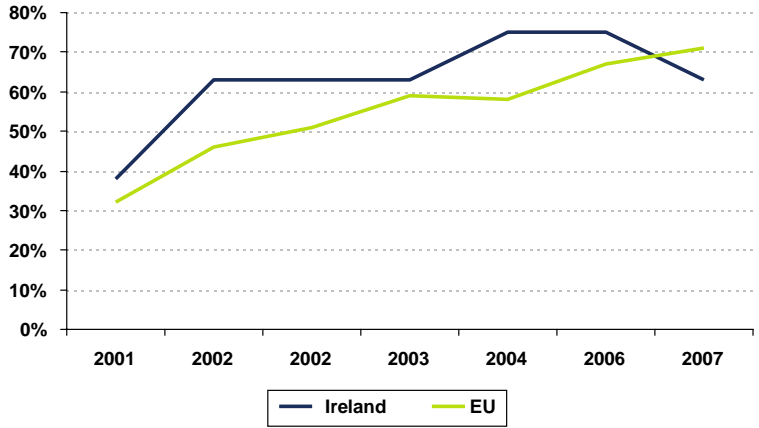
Source: "The User Challenge, Benchmarking the Supply of Online Public Services", Capgemini
September 2007

This is of particular concern in an economy where the proportion of businesses using eGovernment services has risen from 69% in 2004 to 84% in 2006[3]. This highlights the importance of online service provision and quality and its importance to Ireland's competitive standing.

eGovernment has the potential to keep administrative burdens low, which is particularly important to smaller businesses, which have limited resource to allocate to hefty compliance burdens (this will be discussed later in the report). At the same time, Ireland must aspire to compete on an international level to attract firms, and be competitive and supportive to grow the internal business economy. A favourable business environment is the key factor here, and user-friendly eGovernment solutions to facilitate Business-to-Government interaction are a vital enabler.

[3] Eurostat

Chapter 2 Objectives and Methodology

This section outlines the approach and methods used during the course of this research

2.1   Objectives

The purpose of this study is to review international eGovernment practices, in order to identify leading countries and examples of best-practice in delivery of eGovernment services. This research is meant to inform thinking on how Ireland can accelerate plans and progress on eGovernment strategy, particularly for the benefit of the enterprise sector. There were a number of specific objectives for this study:

1   Undertake a review of the international literature on global developments in eGovernment;

2   Identify the most advanced countries in terms of implementation of eGovernment services for business;

3   Examine specific eGovernment services in countries that have had a significant impact on business efficiency;

4   Examine the benefits derived by businesses from the introduction of eGovernment services;

5   Examine the benefits derived by Government from the introduction of eGovernment services, through improved productivity and improved data for strategic and planning purposes;

6   Summarise key findings from other countries and identify principles that can be applied with respect to the identification and implementation of high impact eGovernment business services in Ireland.

2.2   Study Method

During this study a 3-dimensional review of the eGovernment landscape across services, countries and delivery principles (explained further below) was carried out.

Fundamental to having a successful approach was:

- An understanding of the current dynamics within the eGovernment marketplace;
- The ability to track and monitor trends and drivers as they have changed with time;
- Having access to an established global network of experts;
- The ability to research, synthesise and extract key insights from global leading practices;
- An informed and complete view of what it takes to make eGovernment improvements.

Countries

Services across the primary focus countries were examined (UK, The Netherlands, Norway, Sweden, Denmark, Austria) and findings from secondary focus (Finland, Portugal, Belgium, Singapore, Australia, USA and Canada) and other countries (e.g. Estonia, Greece), where centres of excellence across a number of delivery principles were found, were identified.

Services

High impact services were examined, and the extent to which these have been implemented across countries – in many cases the focus interviews supported the findings from a literature and epractice case study review.

High impact services were defined as those that make a significant difference to businesses and Government. Tax and procurement services are among the most advanced, with most countries in Europe offering some form of tax and procurement service online. Company and administrative services were also examined which covered areas related to business registration, ownership, legal status among others. Other services covered during the analysis are statistical reporting requirements, and environmental and health & safety.

Principles

Nine key principles to successful eGovernment delivery have been identified, which are detailed further below. These principles have been used to examine how each country has made progress and achieved success in delivering eGovernment services. The principles are:

- Political Leadership;
- Proposition & Channel;
- Stakeholder Participation;
- Finance & Contracting;
- Programme Management;
- Culture and Process;
- Technology Approach;
- Capability Development;
- Performance Management.

Sources

An extensive review of international literature covering over 100 document sources was undertaken in order to examine global developments in eGovernment.

This literature review was supported by the insights and experience of eGovernment experts, gained during 16 focus interviews concentrating on eGovernment services around the World.

The focus interviews were held with eGovernment practitioners and academic thinkers in a variety of roles: Country level CIOs, European and North American academics who are recognised eGovernment authors, eGovernment subject matter experts (SMEs) from: OECD, EU, and experts in the use of eGovernment measurement frameworks. From the private sector world-recognised ICT experts and CTOs were interviewed. The interviewees were from the following countries: Austria, US, Finland, Netherlands, Norway, Italy, France, Belgium, Denmark, UK, Portugal, and they also provided learning and examples from global practices.

The interview topics covered:

- Identifying best-practice across countries and services;
- Understanding the levers and barriers to successful implementation;
- Measuring the impact of eGovernment services, and examining the split of benefits between business and Government;
- Identifying the technical, capability and interoperability resource requirements;
- Understanding how the views of businesses are taken into account when designing eGovernment services.

As well as key learning and insights from the individual experiences, the interviews provided insight into the practical experiences and challenges associated with the design and delivery of eGovernment services, and informed and supported the findings from the literature review.

The research also covered an in-depth review of the ePractice database, which contains approximately 700 cases of eGovernment practice from across the EU, of which 180 are related to Government-to-Business services. From this initial list 50 examples were analysed in detail, to inform the thinking and develop additional insights on best-practice countries. These are presented later in the body of this report.

2.3   Theoretical Model – eGovernment Delivery Framework[4]

eGovernment projects come in all shapes and sizes, and there is no one approach for addressing particular issues or challenges. An eGovernment Framework based on nine key principles for successful delivery has been developed and tested. This framework, as illustrated below, has been validated by public and private sector contributors and subsequently published. It provides the structured theoretical model for this research project as a basis for comparison of best practice implementations.

Figure 2: eGovernment Delivery Framework

1. **Political Leadership**
   - Vision & Strategy
   - Right Policy & Regulation
   - Collaborative Leadership

2. **Proposition & Channel**
   - Compelling Value Proposition
   - Service Proposition
   - Channel Strategy

3. **Stakeholder Participation**
   - Stakeholder Mapping
   - Take-up Approach
   - Brokerage / Intermediaries
   - Marketing / Communications

4. **Finance & Contracting**
   - Funding Strategy
   - Procurement Strategy
   - Contracting Process & Contract Management

5. **Programme Management**
   - Roadmap for Change
   - Project Management & Resource

6. **Culture & Process**
   - Ways-of-Working Analysis
   - Process Redefinition
   - 'Fit' to IT Applications

7. **Technology Approach**
   - Infrastructure Strategy
   - Trust, Security & Identity
   - Standards
   - Database Requirements
   - Technology 'Market Watch'

8. **Capability Development**
   - Skills Gap Analysis
   - Coaching & Training Delivery
   - Research

9. **Performance Management**
   - Benefits Case for All
   - Targets
   - Measurement Process

Source: Capgemini.

The key elements are:

1   Leadership

Successful eGovernment requires strong leadership and vision. Leaders need to be informed, visible, have a clear direction and objective for eGovernment, and have the power to influence all those involved. Flexible leadership is also needed to align different departmental and political aspirations. Leaders need to encourage constructive debate on policy objectives; deliver strong stakeholder management, and be prepared to radically reengineer business and operational processes and service delivery. The introduction of integrated electronic services may often involve regulatory change which requires strong resolve and commitment. eGovernment leaders need to be supportive and fully informed of the opportunities afforded by technology and the impact it is likely

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[4] Collaborative Buy IT Best Practice Network Guideline: Delivering e-Enabled Public Service Reform, "The Framework for e-Government"; 2005

to have. For significant change the required mindset and culture change must be led from the top to provide the catalyst for re-inventing Government.

2   Proposition and Channel

There must be a clear and deep understanding of who the customers are, what service options will attract them, and a clear and compelling value proposition. The internet is a new channel for service access and is not used solely or consistently by customers. It can be more efficient but may not provide all services in the same way. Citizens and business users will demonstrate different behaviour and it can take time and understanding of their habits, wants and needs to migrate businesses to different access channels. Selecting the right services to web-enable is not straightforward, and it may require changes to the service portfolio itself.

3   Stakeholder Participation

Take-up of reformed e-enabled services is in many cases below expectations. Countries have to therefore understand the drivers of adoption and building these into a managed approach – i.e. recognise what will attract and retain businesses to use the services. Building trust is an important element of service take-up. Effective marketing and communications becomes an essential ingredient to success, informed by stakeholder analysis.

4   Finance and Contracting

Delivery of more complex reform is likely to involve several public (and private sector) constituencies, and thus new funding options may well emerge, or indeed be required. The funding and procurement strategy must be clear. Importantly the outcome should not be constrained by the procurement process. Often early discussions with the supply base will introduce the means to achieve new and innovative solutions. This innovation doesn't stop through the procurement process, and change in contracting and contract management may open opportunities for greater value. One must plan for change in needs and solutions to deliver those needs. A different attitude to contract management and suppliers is required.

5   Programme Management

Programmes are portfolios of projects. Project management disciplines are essential to keep individual projects in control. For effective eGovernment project management, some form of strategic roadmap for change needs to be in place. As reform will involve several organisations there is a greater need to make this roadmap open, explicit and easy to understand – it is only through doing so that change will be aligned.

6   Culture and Process

The most difficult topic is to change the working ways of individuals. Reform infers substantive and long-lasting change – to the extent that change becomes the norm. This will involve change to working practices and processes; more importantly, change to behaviours, habits and mindset. Technology has to be fit to the needs of the re-defined processes. It is important to engage staff

from the outset and to explain the changes and why they are critical. Change leaders need to be sensitive and listen to feedback from staff whose work is going to be impacted by the introduction of new technologies. Change leaders will also need to drive the message that change is inevitable and be prepared to manage the consequences of resisting staff. 'Change Champions' within departments – appointed by the departments themselves – can serve as catalysts for change and can provide valuable feedback to central management teams. Support desks, user help packs and close communications with unions are essential. It is also vital to manage expectations of senior executives, as benefits are not likely to be immediate.

7   Technology Approach

ICT is vital as an enabler, but it must be put into context. That means understanding it in the context of regular operations – and for some this is new. Joined up processes will work better with aligned IT. This requires agreement on central standards – a massive opportunity to get it right, given the scale of the public sector. Infrastructure strategies must be created collaboratively, and focused on delivering common services in the most efficient way, like dealing with 'identity' and payment only once. This introduces the need to address security and the policies that surround this area. Finally, and importantly, the ICT market moves at pace and there is a need to establish "market watch" roles to scan the technology horizon, ensuring that decisions made to date will endure.

8   Capability Development

The implication of all this in human terms is profound. There will be significant skills' gaps that need to be filled – both within the public sector organisations themselves and the broader influenced constituencies. Skills and resource gaps must be analysed and plans established to build capacity. 'Training' is not necessarily the answer. Continuous coaching and mentoring will be required. eGovernment is not just about new systems. It's about continually innovating and adapting business and operational processes. Some of the capability gaps will not be filled from what we know today. Access to research will be required to inform future development plans.

9   Performance Management

Change is brought about by incentives. The benefits to all parties must be clear; and returns to investors too. A clear business case captures this information. But that is only the beginning. Quick wins are required to encourage change. Targets must be set, driven off the business case, and most importantly a benefits realisation process is required to prove and sustain change. Benefits come in several forms, and must be treated as such, but a rigorous performance mindset will be required to ensure budgets 'perform'.

Summary

These nine principles identify the key areas that Governments need to consider when developing and delivering eGovernment services. As such, the methods used in countries in terms of eGovernment services in the context of this framework has been examined, and this is detailed further in Chapter 7.
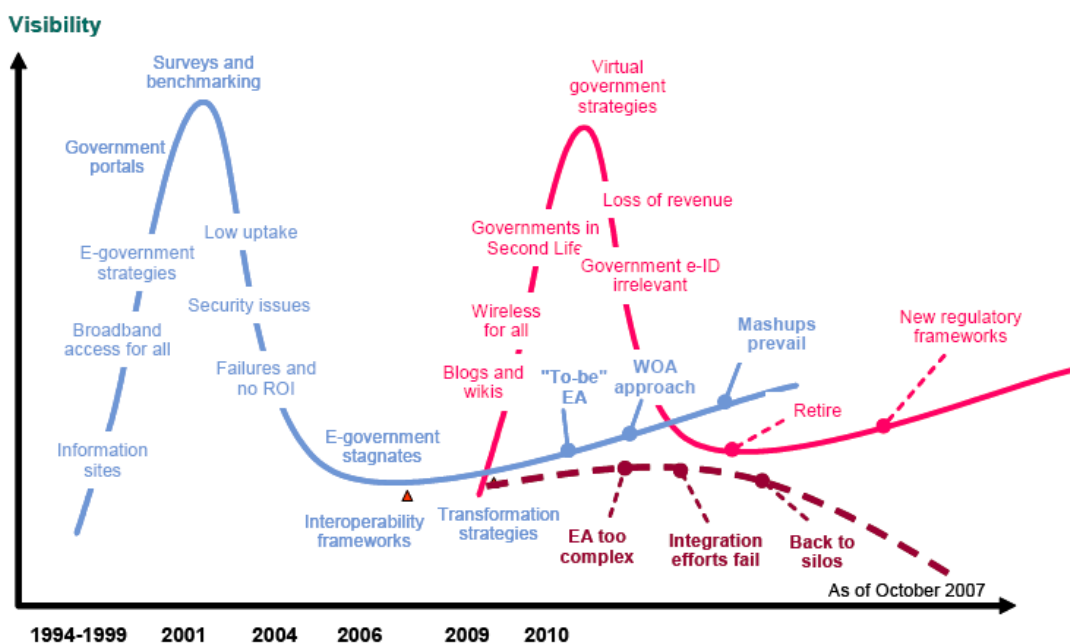
Chapter 3 Overview of eGovernment

3.1   Global Trends in eGovernment

This section examines recent global trends in eGovernment.

Gartner has developed a "Hype Cycle" which gives a historical view of how eGovernment has evolved and how they predict it would develop.

Figure 3: Gartner eGovernment Hype Cycle

Source: "The eGovernment Hype Circle Meets Web2.0" Andrea Di Maio, Gartner Industry Research October 2007

Since the mid 1990's Governments have failed to make the same progress the private sector has made. The first years were characterised by one-way communication simply through making information available online. Businesses continued to develop services with increasing maturity and sophistication by enabling exchange and transaction and aligning their processes and organisations to provided services. The result is that today many businesses offer agile, dynamic and real time services.

By contrast, most Governments have not managed to reach these levels of sophistication. Processes continue to be based on designs that were developed for paper with e-mail and online transactions only being used as substitutes. Governments have often not managed to align the internal processes around electronic services. Back-office and front-line processes are not seamless and services are not integrated across departments.

To reach the level of maturity achieved by businesses Governments need to be able to offer services that are fast and capable of continuous fine-tuning to respond to changing customer needs. Transformational Government describes the stage by which countries align their processes and organisational structure to the online services they provide.

Figure 4: Transformational Government
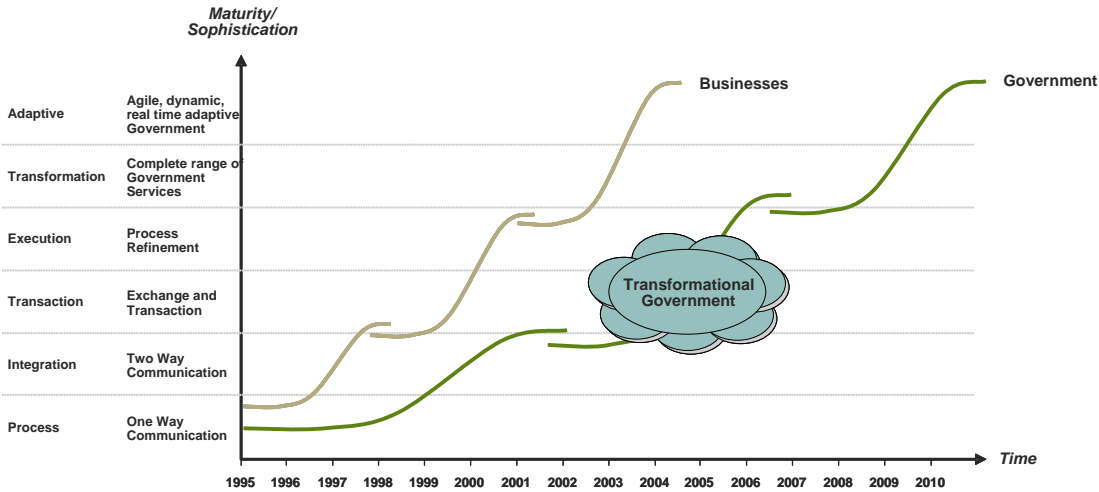
Source: Capgemini, 2007.

With the broadening perspective of what eGovernment is and means, current discussions on eGovernment trends can be wide ranging. Some of the more significant shifts that are observed are highlighted here. These cover topics of strategic perception as well as specific technology related ones. These trends are not mutually exclusive.

1   *Increased ICT Investment* – after decades of under-investment the majority of countries are playing catch-up as regards their Public Services ICT investment plans. This in turn has led to a greater focus on the need to demonstrate return on these investments. There is now a heightening commercial focus in public sector programme decisions, both on cost control and evidenced returns.

2   *"e"-Gov to "t"-Gov* – Perceptions have changed and there is growing recognition that service improvements cannot be made by technology alone. The term eGovernment has indeed been dropped in some countries in favour of "transformation" Government. The appreciation and maturity of the debate clearly indicates that decisions are being made by "business" people who have a far greater appreciation of technology (and vice versa).

3 *Customer Centricity* – There is a major shift observed to fundamentally redesign public services from the 'customer-in' rather than 'administration-out'. This radical change has implications from a policy level down to technology. The figure below offers a framework for how this development is observed.

Figure 5: Customer-Centric View of eGovernment
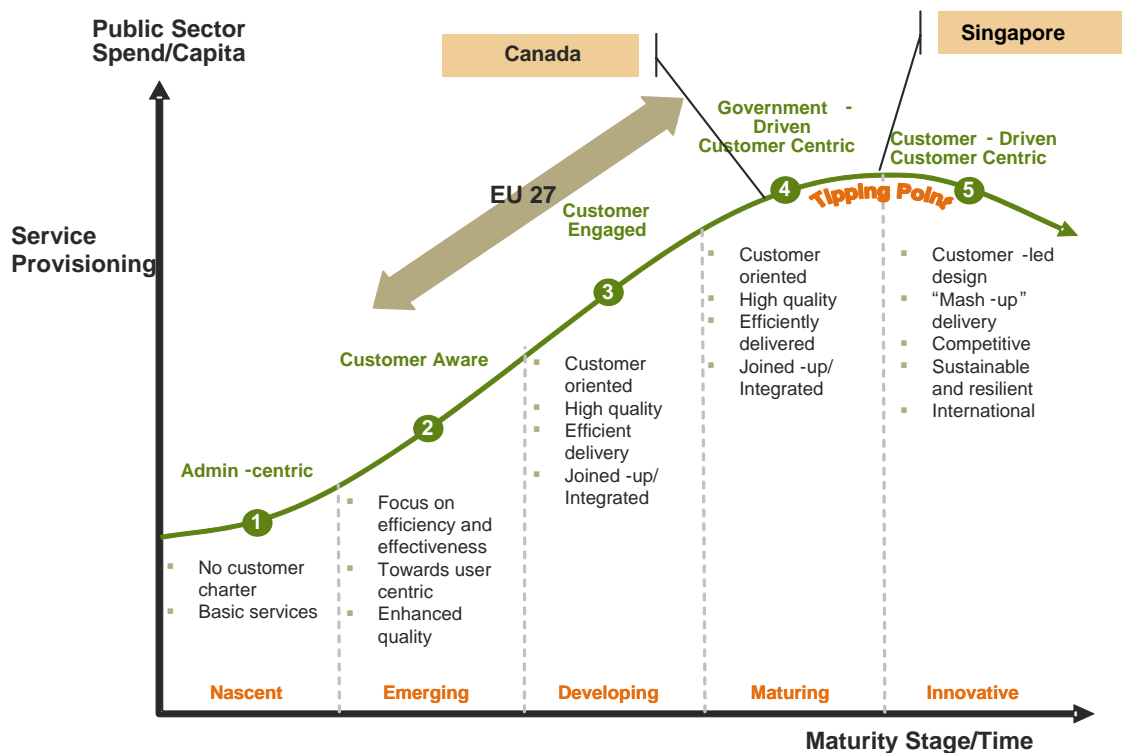
Source: "Delivery 21st Century Customer-Centric Public Services", Capgemini, September 2007

4 *Customisation* – Current trends for user customization and interaction when using online services has now been embraced in the eGovernment domain. Within Europe, eGovernment services have gradually shifted from being website-based information portals to offering full services and personalisation for customers – in Austria and France customers are able to personalise driving licenses and passports online. However countries have now got to a stage where customisation and user focus can no long be improved without making significant changes to the organisation and infrastructure of Government. Customisation now needs to allow for businesses to interact with Government on this level.

5 *"Gov 2.0"* – The use of Web 2.0 enables users to engage with Government, and contribute to services and information (e.g. social networking). It allows Governments to build stronger relationships with customers – whether these are citizens or businesses. The challenge then becomes how to design services which are flexible enough for customer personalisation, yet

able to deliver interoperability across Government gateways. However, Web 2.0 is not a sudden step-change but rather a stage in the evolution of the customer experience as customers' become increasingly familiar with new channels.

6   *Multi-channel Optimisation* – eGovernment in its infancy was typically viewed as synonymous to having a web-channel, but this is no longer so. Public service providers and customers are becoming more attuned to the various channels available and the relative benefits (and costs) of each. The merge of applications that operate across multiple end-user devices (telephone, web, mobile, TV) enables flexibility. This mixed-provision model can deliver far better and more efficient service levels

7   *"Negation"* – There is a growing trend to eradicate process steps and to use technology to support and enable this change. As such, 'Administrative Burden Reduction' programmes abound. They address the overlapping opportunities that exist from regulatory simplification (e.g. a change to a risk-based approach with audits that are significantly ICT-enabled through improved management information) and automation.

8   *Website Consolidation* – On a specific note, a multiplicity of Government websites have been allowed to form in most countries. There is a general trend to consolidate provision to offer a more streamlined and consistent brand and feel to Government. This also reduces government expenditure. Most countries now seek to provide a one-stop Government Portal – typically a separate portal for citizen and business customers.

9   *Collaborative Delivery* – There is growing recognition that economies of scale and aligned delivery of customer services require co-joined service delivery. This is of particular relevance for local public service delivery where there are typically multiple providers. It is also relevant down the tiers of government. Initiatives to share back-office services are being supplemented with fast growing front-office collaboration.

10 *Inter-operability* – The largest technology impact occurs from the desire to deliver 'joined-up government'. This requires information to be transferred seamlessly and reliably between different organisations, systems and applications across Government. 'Middleware' and information standards facilitate this. COTS (Commercially available Off-The-Shelf) software is in general becoming more inter-operable. Industry, through the likes of the Open Group, supports the growing trend towards agreed common standards. Inter-operability is also about how organisational structures can be aligned to facilitate data sharing and deliver joined up services across a common platform.

11 *Open Source & Standards* – There is increasing interest in the use of open source standards (OSS) and applications. What is not as yet clear is the long-term economic advantage. Experts forecast an increase in OSS use from its current single digit percentage, to a more significant level which is expected to plateau over time.

12 *Right-shire & Off-shore delivery* – An emerging trend is the provision of services from distant geographies, and technology enables this through rapid automated information transfer. Providing services at a distance can be delivered through commercial partner organisations who use cheaper labour for the design, build, or operation of information systems.

Developments are also driven by the EU agenda on eGovernment. At the Ministerial eGovernment conference in Lisbon on 19 September 2007[5], EU ministers acknowledged that the ways in which citizens interact with Government services continues to evolve; and technology and society have continued to change the way citizens and business interact with Government, and what they expect of these services. As such Governments are keen to ensure that citizens and business benefit from the large investments being made in ICT across Europe. The eGovernment Ministerial Declaration issues in Manchester in November 2005 set targets for 2010, and now member states are keen to keep-up momentum in the following eGovernment policy priorities:

- *Cross-border Interoperability* - Reinforce cooperation among Member States through high-impact, large-scale ICT PSP Pilots on cross-border eProcurement and mutual recognition of eIDs (electronic identification);
- *Reduction of administrative burdens* - Use eGovernment as a lever to contribute to the objective of reducing administrative burdens for citizens and business in Europe;
- *Inclusive eGovernment* - Increase social impact by ensuring that all citizens benefit from eGovernment services;
- *Transparency and democratic engagement* - Explore new ways of public participation and increased transparency enabled by innovative ICT technologies for democratic engagement and transparency.

Summary

Governments must look at how they deliver their public services harnessing the opportunities presented by these trends. The result will be the building of confidence in Government and in the ICTs they use in delivery of services. Without this, public services cannot be delivered to the levels expected by customers economically.

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[5] "Ministerial Declaration", 4th Ministerial eGovernment Conference, Lisbon Portugal, 19 September 2007

3.2   Benefits of eGovernment

In this section, the main benefits of eGovernment to business customers and to Government itself are outlined. At the very highest level, the main benefit is that it improves competitiveness.

As such, there are a number of possible links between competitiveness and eGovernment from a business perspective. eGovernment has the potential to reduce the compliance burden on businesses and it can make Government itself more productive by freeing up resources. Both of these benefits themselves have a feedback effect on competitiveness – see below.

Figure 6: Linking eGovernment to Business Competitiveness
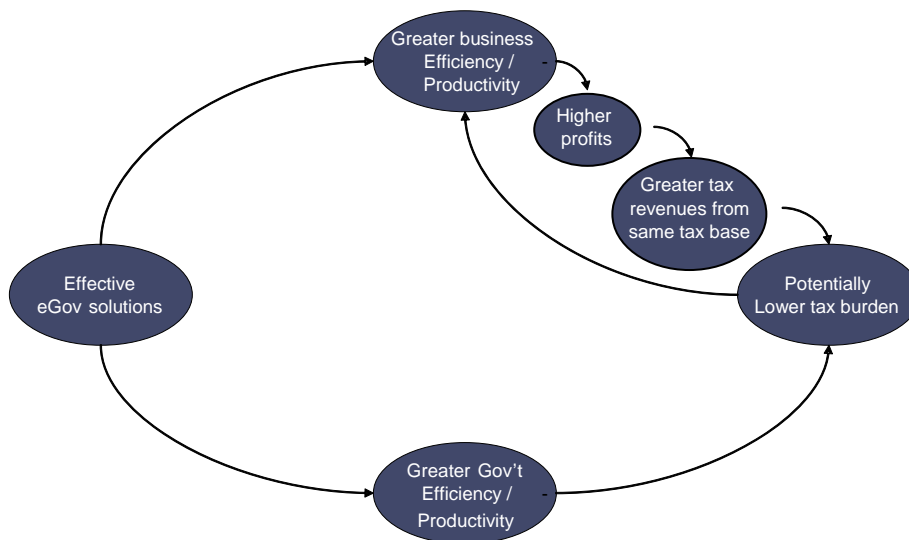
Source: Capgemini, November 2007

So when well executed, eGovernment solutions can enable a more efficient functioning of Government, which has the potential to lower the tax burden (or deliver better services more cheaply, hopefully with similar benefit to businesses). They also enable more efficient interaction with Government, which frees up businesses to focus on delivering better value. Again, the end-benefit is a lower tax burden, which itself improves business efficiency.

When targeted at higher volume services such as tax filing, vehicle registration and procurement eGovernment services maximise economies of scale, which translate into greater government efficiency. At the same time any direct benefits to business (and thus to the economy) are replicated on the same scale.

A recent HM Treasury study found that these benefits to business have the greatest impact on smaller business, since the cost of compliance per head decreases for larger businesses (see figure below). Since the majority of businesses start small, making life easier for small businesses can be

linked to ease of business start-up, and thus has positive implications for a more innovative and competitive economy.

Figure 7: Compliance Cost Per Man-month by Business Size
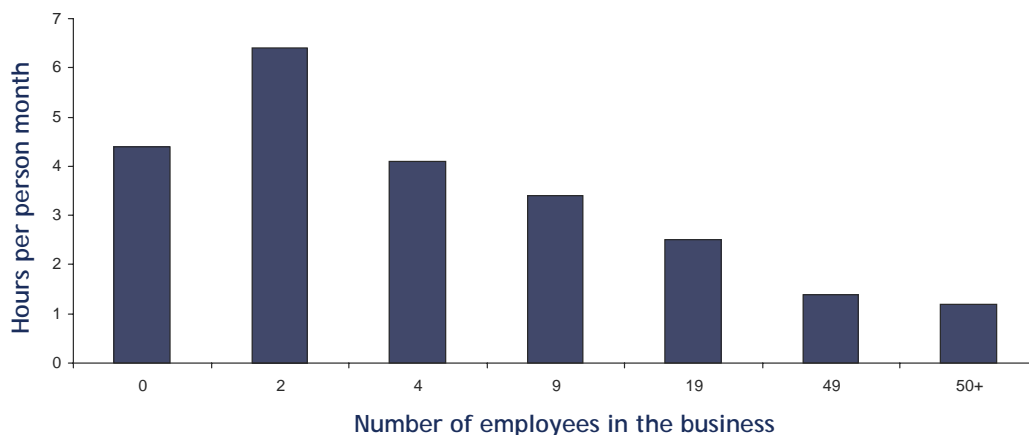
Source: "Reducing administrative burdens: effective inspection and enforcement", Philip Hampton for HM Treasury, March 2005

As of 2005, Portugal's "On the Spot Firm" concept has enabled new businesses to be set up in under one hour, compared to two months before 2005[6]. Since it became available online, this new service enabled the creation of 9,000 new businesses in a year with a saving of 230,000 days of travel and waiting. Today, with this service available electronically through Portugal's Enterprise Portal, it accounts for 50% of the country's new businesses.

Across the border in Spain, the new online tax returns portal benefits large companies as well as smaller ones, since the country's 22,000 biggest companies account for 600,000 declarations per year[7]. The new system reduces the average effort for a tax declaration from 80 days to as little as 7 – and this improvement is duly amplified for these larger companies with more numerous tax returns.

In Singapore, the online business registration service is the 5th-most used of all eGovernment services (the others being services for citizens)[8]. As a result of this new facility, companies can make a single application for all licences across over 30 different agencies, including the Accounting and Corporate Regulatory Authority (for registering new businesses), the Media Development Authority (for media sales) and the Police (for liquor sales). An overall improvement in productivity results from companies investing the time they would have spent applying for licences in doing more business instead.

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[6] "Building Bridges to Better Administration, State Modernisation in Portugal", UMIC, UCMA and DCAP, no date.
[7] Does eGovernment pay off?, Capgemini & TNO, 2004.
[8] Pay your taxes online, Digital Life (Singapore), 2007

These cases all highlight that eGovernment solutions can potentially benefit a wide range of firms in very tangible ways. In addition, there is the ability to submit returns 24/7 without Government incurring additional costs from longer opening hours. Online access to detailed information (as well as the face-to-face and telephone support they enjoyed previously) improves the transparency of interaction with Government.

From a Government perspective, several of the case studies examined (including Spain, Slovenia but also others which pertain to citizen as opposed to business services) cite higher data quality as a key benefit. Since returns are made online, the process is quicker and less error-prone. There is also the opportunity for real-time electronic data validation to reinforce this. More generally, eGovernment reduces the man-days required for Government to collect the information it needs, resulting in greater operational efficiency.

So the benefits to business from eGovernment consist mainly of cost reduction, improved efficiency, greater flexibility and transparency, while Government becomes more efficient through being able to get the same (or better) results for reduced effort. From a policy perspective this means that when evaluating the benefits of any proposed eGovernment project, policymakers should consider not just potential cost savings to public administration and to enterprises, but the benefit to economic competitiveness through time and effort saved, and the socio-economic benefits of greater transparency.

Figure 8: Benefits to Government and Business

Benefits to Businesses	Benefits to Government
Reduction of compliance burden	Improves competitiveness
More efficient interaction with Government	More efficient processes and functioning of Government
Cost reduction	Higher productivity
Greater flexibility, e.g. through the ability to submit returns 24/7	Economies of scale when targeting higher volume services
Online access to detailed information	Cost reduction
Improved the transparency of interaction with Government	More innovative and competitive economy
	Ability to offer 24/7 services incurring additional costs from longer opening hours
	Higher data quality
	Reduces man-days required for data collection
	More trust in Government

Source: Capgemini analysis, November 2007.

Although the benefits above have been identified as resulting from eGovernment it has to be stressed at this point that full understanding of the benefits is not always the case. Reasons for this are that benefits and costs are often not measured sufficiently or not measured at all.

The Office of the Deputy Prime Minister (ODPM) in the UK aimed to describe the benefits derived from a centrally funded portfolio of eGovernment projects which were managed by a collection of local councils. The initial projects had no clear value proposition and/or statement of benefits.

The projects were assessed against the nine point eGovernment Delivery Framework (described above) and the benefits validated through detailed business cases for an authority. This rigorous process allowed for the development of sound case studies.

As eGovernment projects deliver benefits in addition to financial savings it is necessary that a combination of soft and hard benefits categories are measured. This however, increased the difficulties and complexities of measurement as quantifiable non-financial benefits (e.g. improved customer satisfaction, change in business' behaviour) may be difficult or expensive to obtain. Non quantifiable financial and non-financial benefits, such as more effectively delivered services or increased awareness of service quality, may cause further issues.

The ODPM managed to develop benefits studies for ten out of the twenty projects. The governance processes, funds and activities were however so fragmented that the initiative was not as successful as it could have been. The full benefits could therefore only be derived to a certain extent.

An evaluation of selected, in particular financial, indicators is often possible if the data is collected and measured correctly. But understanding and measuring benefits from eGovernment need to also include benefits that are not necessarily financial. Interpreting cost reductions in isolation, for example, will not give the full picture and therefore inform decision making incorrectly.

Due to this distortion and lack of understanding benefits of eGovernment projects are often overstated whereas costs are understated.

The overview below highlights the importance of identifying which benefits should be of most importance to Governments. It also shows which benefit types Governments typically concentrate on and which areas are neglected.

Emphasis is often put on measuring the implementation stage which includes online availability and Governments' technology spends. Describing the outcome and impact of eGovernment is however more important as these are benefits that affect Governments and businesses in the long term. 'Actual' usage and performance related benefits take time to develop but are of greater importance to measuring success.

Figure 9: Identifying Benefits of most Relevance to Government

	Project Delivery		Outcome	Impact
	Implementation	Change	Take-up and Adoption	Performance
Benefits/Costs **to Government**	(Estimate of Technology Spend) CURRENT FOCUS	Measures on Back Office Integration, Service Sharing, Data Management 'Neglected/ Underestimated'		Efficiency of eGovernment SUGGESTED FOCUS
Benefits/Costs **to Businesses**	(Technology Cost to Businesses) NEGLECTED BY GOVERNMENT	(eReadiness)	(Engagement) SUGGESTED FOCUS	Effectiveness of eGovernment SUGGESTED FOCUS

Source: Capgemini analysis, November 2007.

This issue of benefits measurement will be discussed further in the next section and throughout this report.

Chapter 4 Measuring the Impact of eGovernment

4.1   Introduction

In this section the reasons why it is important to measure the impact of eGovernment and which challenges countries face in doing so are discussed. In addition, the most successful measurement frameworks are evaluated.

4.1.1   Why Measurement is key

In order to identify best practice in eGovernment across countries and services, there needs to be a way of measuring outcomes and impacts, so that a measure of 'good' can be determined. Overcoming the challenges of measurement is also key in identifying best practice.

Measurement is important for two main reasons:

- Firstly, if done on a consistent basis across countries, it allows Governments to benchmark their performance against other countries, focus on key areas for improvement, and learn from the best practice of others in the delivery eGovernment services;

- Secondly, it enables a Government to evaluate what eGovernment services can deliver within its own country by understanding demand, assessing the benefits of different services and evaluating how eGovernment meets pre-defined objectives. By measuring the outcomes and benefits, a Government can build the business case to justify spending on new projects, allocation of additional funding, and assessing progress towards programme goals. In any measurement system, there needs to be a credible way of measuring success which would allow independent benchmarking and international comparability.

During the focus interviews conducted with experts in Austria, Finland and France, measurement and quantification of benefits and costs was identified as one of the key enablers which allows Governments to make informed decisions on how and what eGovernment services to implement.

For example, the (high level) measurement of benefits, and use of business cases, has been one of the key enablers of eGovernment in Austria and this enabled Austria to be seen as a benchmark. By measuring impacts, Austria was able to make more informed decisions on what services to implement, and in some cases this has led to a move back to traditional channels when electronic procedures proved not to be sustainable.

Examples of measures are, for instance, percentage of uptake (in tax) or the reduction of administrative efforts. Similarly, pure financial measures have worked well in professional domains in the Austrian context, e.g. in the case of the medical area, returns on investments within two years were calculated on the basis of paper and procedures that could be saved.

Generally, benefits are mostly measured in financial terms, although Austria tries to have an overall view of the benefits to customers and other global measures. However, it is often used at a high level rather than for supporting a single case due to the fact that benefits and costs are not in the same place.

Surveys have been undertaken to measure benefits to businesses, e.g. how much time and money administration and individuals spend on delivery. In many cases, such as when the number of contacts per year is very low, these measures are difficult to interpret or are not relevant enough to inform decision making. In the case of tax services, companies may use accountants to file returns which can make it difficult to measure direct benefits to businesses, although it becomes easier to switch to electronic procedures.

4.1.2   What is being measured

Apart from identifying specific qualitative and quantitative indicators (e.g. take-up of services, reduction in processing times, etc) any measurement should also consider how to quantify the split of benefits and costs between businesses and Government. This can often be difficult to do, due to the fact that costs and benefits are often not fully understood by either side – making it difficult to build a business case for eGovernment.

Accurate collection of relevant statistical information is important but can also be difficult – and this has been highlighted during our discussions with eGovernment experts, as well as in the case studies examined. For example, in Austria, surveys were carried out in an attempt to measure how businesses benefit from eGovernment, (e.g. assessing how much time companies spend using eGovernment services). In several cases, these measures were difficult to interpret or not relevant enough to inform decision making.

In some instances when trying to measure eGovernment impacts, proxies[9] are used to get an indication of how successful eGovernment has been, such as through the E-Readiness Index[10]. A country's E-Readiness is a measure of its e-business environment, and its ability to promote and support digital business and Information and Communications Technology (ICT) services. However E-Readiness on its own would not enable a country to build a business case for eGovernment services.

4.1.3   How is measurement undertaken?

Impacts and outcomes should also be measured over a sufficiently long period of time for a meaningful change to be observed. In France, for example, it was stated that outcomes are typically measured for one to two years after a service has been established, and this is sometimes too soon for full benefits (e.g. user take-up, investment payback) to be fully realised.

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[9] France eGovernment Focus Interview, November 2007
[10] http://www.eiu.com/site_info.asp?info_name=eiu_2007_e_readiness_rankings&rf=0

Challenges in Measurement

However from the case studies examined and discussions that were held, there are still a number of difficulties in measuring the impacts and outcomes of eGovernment across countries. Costs can often be understated when Governments do not fully quantify the economies of scale gained, or the costs of maintaining separate channels.

It is possible that one source of these difficulties could be a lack of understanding of what the benefits and impacts are, how they are split across Government and business, and a lack of political will. Gartner, a prominent IT industry analyst, goes further than this, citing the nature of the public service environment as an inhibitor to effective measurement of costs and benefits[11].

According to the same source, at the start of the current wave of Government transformation, many agencies based their business cases for new eGovernment solutions on tried and tested measures of return on investment such as net present value (NPV, which discounts future benefits to take into account inflation and economic growth). This assumes that the final benefit consists mainly of cost savings in Government, and fails to take into account both the benefits to, and the impact on, economic competitiveness. Since eGovernment systems are financed by taxes, any cost savings and economic benefits must be offset against the negative impacts of higher taxes on competitiveness.

To shed more light on how to meet these challenges, three existing eGovernment benefits measurement approaches will be examined. These frameworks could be used to evaluate either internal country performance or European benchmarking. France's MAREVA framework has been used to date to measure eGovernment success within the French national context, whereas the eGovernment Economics Project (eGEP)[12] framework, developed for the European Commission, allows comparison of eGovernment measurements across countries.

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[11] "Traditional ROI measures will fail in Government", Andrea di Maio of Gartner, July 2003
[12] "European eGovernment 2005-2007: Taking stock of good practice and progress towards implementation of the i2010 eGovernment Action Plan", European Commission Information Society and Media, September 2007

4.2 Examples of current eGovernment measurement systems

4.2.1 The MAREVA Framework

The MAREVA framework is the French eGovernment measurement methodology, and is a method of analysis and value enhancement which was developed by the Adele (Agence pour le Développement de l'Administration Electronique – Electronic Administration Development Agency) with the help of BearingPoint[13]

Figure 10: The MAREVA Measurement Framework Model

The French MAREVA Methodology				
Profitability For The State	Internal Benefits For Public Administrations	Externalities For Users	Necessity Of The Project	Risk Of The Project
Productivity Gain: More Full Time Employees ▪ Tasks elimination ▪ Ergonomics improvement ▪ Faster search: database	**Better Work Place For Public Sector Employees** ▪ Job content improvement ▪ Working conditions improvement	**Quality Improvements:** ▪ Simpler services ▪ Personalisation ▪ New integrated services ▪ Multi-channel delivery	**Necessity for Adele:** ▪ Cross infrastructure for Adele ▪ Cross project referral system	**Project Risk**
Efficiency Gains: ▪ Reduction of errors ▪ Optimised receipt of documents ▪ Improved decision - making	**Improvement of Efficiency of Public Service:** ▪ Support re-organisation ▪ Improved planning ▪ Improved and faster decision-making ▪ Elimination of paper archives	**Info Society Promotion:** ▪ Benefits for work ▪ Benefits for civic life ▪ Benefits ICT skills ▪ Benefits of groups at risk ▪ Benefits for social cohesion ▪ Benefits to democratic participation	**External Necessity:** ▪ (Respond to regulatory requirement) ▪ (Respond to political obligation)	**Technical Risk**
Accruing Economies: ▪ Avoided costs ▪ Economies of scale	**Support to Decentralisation:** ▪ Empowerment of local communities ▪ Mutualised infrastructure for communities	**Number of Users Affected**	**Public Service Efficiency Necessity** ▪ (Avoid other expenses) ▪ Simplify complex area) ▪ (Control/ avoid risky/uncertain areas)	**Legal Risk**
Faster Revenue Collection		**Time/Money Saved**		**Deployment Risk**
Increased Revenue				

Source: "European eGovernment 2005-2007: Taking stock of good practice and progress towards implementation of the i2010 eGovernment Action Plan", European Commission Information Society and Media, September 2007

It is an example of a tailored framework which has been applied across a large country (France), using generic elements defined by the European Commission such as efficiency, effectiveness and democracy, but building on these elements to qualitatively and quantitatively measure impacts against measurable targets.

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[13] "Mareva Methodology Guide. Analysis of the value of ADELE projects", Presentation from the 2nd eGovernment Economics Project (eGEP) workshop held in Brussels, July 1st 2005

At an overview level, the MAREVA method entails:

- Standard calculations of return on investment (ROI) using three indicators:
    - Breakeven point;
    - Internal rate of return;
    - Recurring gain from the project;
- Assessment of value using indicators of:
    - Strategic alignment with organisational goals;
    - Economic justification using benefits and costs;
    - Follow-up on expected results;
- Consideration of external benefits to users;
- Consideration of internal benefits to public sector employees and administration;
- A measurement of the necessity of the project[14].

MAREVA has been used in France to select projects for funding, monitoring projects during implementation, and evaluating projects after implementation.

After being launched in 2005 by the French eGovernment Agency, MAREVA has already been rolled out in approximately 100 eGovernment initiatives in 10 French ministries and in several other French public organizations. MAREVA is considered to provide[15]:

- An innovative approach for defining the value of a project by integrating ROI, public sector issues around productivity, impacts on citizens and public servants an organization's complexity and necessity of the project;

- A unique method to evaluate and compare different projects (infrastructure projects, internal transformation projects, e-services…);

- A powerful tool to facilitate discussion between project team members (functional and IT), decision-makers and contractors;

- A way to commit teams to concrete objectives enabling better project management through early identification of risks;

- A way to get impacted departments to be committed to concrete savings objectives (€ or productivity) and to identify action plans to secure them;

- The methodology enables tracking the value of a project at each stage of its life cycle;

- The tools are easy to use, even without training (in 2005, more than thirty projects were assessed in two weeks).

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[14] "OECD EGovernment Project, Benefits realisation management", 35th Session of the Public Governance Committee, 12 - 13 April 2007
[15] http://www.epractice.eu/cases/2024

However, among other weaknesses in Mareva, Gartner highlights the lack of segmentation of the different benefits and insufficient emphasis on value analysis throughout the lifecycle of the project[16]. Benefits should be categorised according to their nature (cost saving in government, time saving for business, transparency, competitiveness and so on). The UK Local Government Benefits programme evaluated this in more detail[17]. There should also be a process in place to ensure that once a business case for a project has been agreed and the project goes ahead, a focus is maintained on delivering the benefits in that business case.

From the perspective of purely identifying and measuring the benefits of eGovernment however, MAREVA provides a consistent approach that is recognised as a good practice framework. It presents the results of cost/benefit analyses in a clear visual fashion which can be easily understood by high-level policymakers. By using five major metrics, it places return on investment (ROI) in a broader context which allows projects to be compared and an investment portfolio developed.

4.2.2   The Criminal Justice IT (CJIT, UK) Benefits Management approach[18]

According to CJIT-commissioned research, 60%-70% of public sector IT projects under-deliver on benefits. Looking at the factors of these failures, the report concludes that "in the overwhelming majority of IT projects, [they] are present prior to benefits case approval". CJIT responded by developing a simple but effective – and latterly award-winning – framework for evaluating, prioritising and delivering key projects, some of the very issues identified with the Mareva approach discussed above.

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[16] Worldwide examples of Public-Value-of-IT networks, Andrea di Maio of Gartner, February 2007
[17] Local eGov: National Projects Benefits Guides, Office of Deputy Prime Minister, 2004-5
[18] Managing the Portfolio, Realising the Benefits, Criminal Justice Information Technology, Oct 05

Figure 11: The CJIT benefits management framework

Portfolio Prioritisation
- Investment Analysis
- Portfolio Change Process
- Re-fresh Process

Doing Things Right—Making Evidence Based Decisions that:
- Are determined by projects Attractiveness and Achievability
- Align IT capability with business priorities
- Adjust the composition of the portfolio when appropriate

Building Confidence in Delivery

Active Benefits Management
- Benefits Realisation Planning
- Challenge Process
- Regular Reporting

Doing Things Right—Ensuring Investment Success through:
- Validating the scale and quality of benefits
- Capturing cross system benefits
- Benefits realisation management at project and recipient agency level

Performance Management
- Delivery Plan
- StocktakeReport
- Performance Review

Doing Things Right—Managing Delivery by:
- Rigorous performance assessment
- Transparent reporting
- Linking funding to continued performance, including realisation of forecast benefits

Source: "Managing the Portfolio, Realising the Benefits", Criminal Justice Information Technology, October 2005.

In prioritising the portfolio of initiatives, each programme and/or project is evaluated along two axes, "attractiveness" and "achievability". Only those that achieve above a pre-defined minimum combined rating are taken forward.

When the portfolio of active projects has been slimmed down to those expected to deliver worthwhile benefits, the Active Benefits Management phase classifies each individual benefit as related either to efficiency (cost- or time-saving) or to effectiveness (contribution to better delivery of CJIT's vision). Clear ownership of each benefit is then established, so that specific people or groups can be made accountable for delivering quantified and approved benefits.

Finally Performance Management involves six monthly checkpoints to ensure that projects are running on time, on budget and on track to deliver the agreed benefits. In the course of these, a centralised body checks both quantifiable financial benefits against targets (total benefits forecast, benefit delivered to date) and other more qualitative benefits.

4.2.3 The eGEP Framework[19]

In comparison, the eGEP measurement framework was developed as a general measurement framework rooted in pre-existing measurement methods, to assess the impact of eGovernment services in different countries. The eGEP method is based on the following measurement frameworks[20]:

- The Danish eGovernment Signposts methodology;
- The French Mareva methodology;
- The German WiBe 4.0 methodology;
- The Dutch Monitor: Multiple Use of Information;
- The UK business case methodology.

It was developed as a tool for performance measurement on a programme and organisational level, and is used to deliver key findings on eGovernment impact measurement, expenditure and the potential economic impact of eGovernment programmes across the EU.

The framework was built around the three value drivers of efficiency, democracy and effectiveness, similar to the MAREVA framework, and was built to produce a multidimensional assessment of potential public value generated by eGovernment, measuring both quantitative and qualitative impacts.

Figure 12: The eGEP Measurement Framework Model
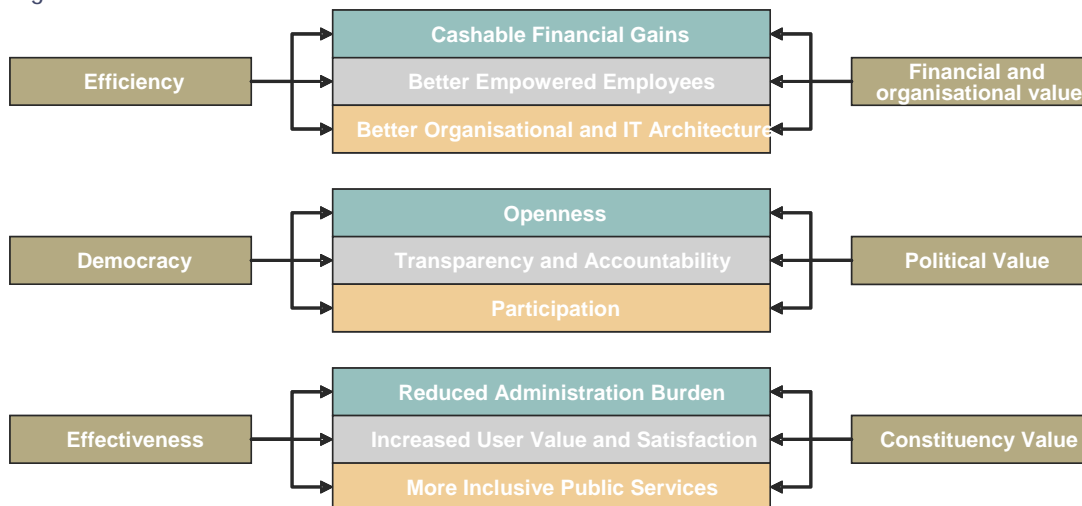
Source: eGovernment Progress in EU27+: Reaping the Benefits Progress Report, eGovernment Unit, DG Information Society and Media, European Commission, September 2007.

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[19] http://www.britishcouncil.org/info@uk-news-march07-egep.htm
[20] "eGovernment Economics Project (eGEP), Measurement Framework Final Version" eGovernment Unit, DG Information Society & Media, European Commission, 15 May 06

eGEP aims to deliver a general model to measure implementation methodology and assess the impact and performance of eGovernment services.

The eGEP Measurement Framework is considered to be a comprehensive measurement framework as it leverages the experience of other methodologies used at national levels.[21]

It can also be a useful tool for central Government departments setting eGovernment strategy and policy and public agencies implementing them, as the framework contributes to fostering accountability as well as the improvement of:

- *Strategies:* performance measures will help agencies validate the public value generated by their eGovernment projects and better focus their strategies;
- *Communication*: measures of achieved results will meet rising public expectations, justify eGovernment projects and foster eGovernment momentum;
- *Motivation and co-ordination*: a sound measurement framework, with feasible and straightforward indicators, will allow more effective evaluation of eGovernment managers, and project teams within public bodies and their external partners, increasing the motivation levels of all project players;
- *Management information*: the framework will be a steady source of timely, reliable, and useful information on eGovernment initiatives, allowing managers to take informed decisions and corrective actions when early warnings signal emerging problems.

The adoption of the eGEP framework in EU member states has been somewhat disappointing. Countries have raised concerns of comparability and feasibility. They believe that few indicators are comparable across countries and that it is not always feasible to collect data. As a result, many countries have developed their own measurement framework. eGEP has nevertheless been applied, for example at a regional level in Italy and is currently being applied in Greece at national level.

To address the concerns mentioned above, the project is being reviewed to create Benchmarking eGEP 2.0 this year. The objective is to keep its sophistication but to come up with a simplified and user-friendly method.[22]

In Gartner's analysis, few disadvantages are identified in eGEP, except for the likely lack of suitable baseline measures when projects get underway and the need for a balance between rigour and completeness on the one hand and simplicity and user-friendliness on the other.

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[21] http://www.britishcouncil.org/info@uk-news-march07-egep.htm
[22] Focus Interview Italy, November 2007.

4.2.4   Standard Cost Model[23]

The Standard Cost Model (SCM) is a measurement method through systematic analysis that aims to simplify legislation and lower administrative burden.

The method works by breaking down regulation into a range of manageable and measurable components such as information obligation, data requirements and administrative activities. On the basis of each activity cost parameters such as price, time and quantity are defined and measured. Combining these elements gives a basic SCM formula:

$$\text{Activity Costs} = \text{Price} \times \text{Quantity} = (\text{tariff} \times \text{time}) \times (\text{population} \times \text{frequency})$$

The following figure shows how components are broken down into activities which in return inform the cost of administrative burden.

Figure 13: Activities that Inform the Cost of Administrative Burden
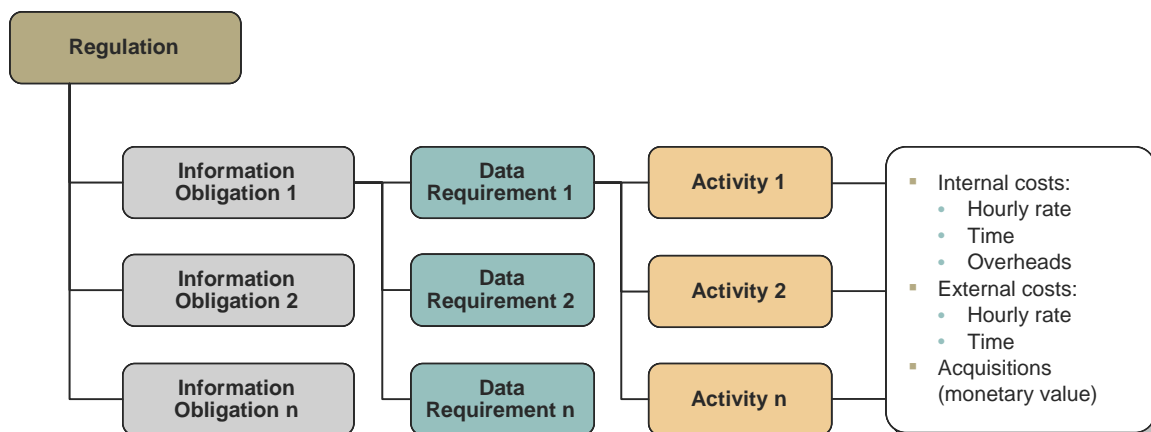
Source: "Delivering Reduction in Administrative Burdens", SCM Network to Reduce Administrative Burdens, 2005

The SCM is a commonly used tool which allows countries to reduce administrative burden through for businesses by:

- Creating awareness amongst policy makers;
- Developing a focused reduction strategy with clearly defined targets;
- Getting commitment and approval from various authorities;
- Monitoring the development of administrative burden;
- Allowing for uniformity, transparency, reliability and comparability.

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[23] "Delivering reduction in administrative burdens", SCM Network to reduce administrative burden, 2005

The SCM approach is aimed at measuring administrative burden and its causes in a structured and effective way. The adaptation of this method to the measurement of benefits through eGovernment needs to be taken with caution. One reason for this is that the tool focuses on measuring a current or a future status of processes and legislation. The benefits need to be derived by measuring the change in results. In addition, it focuses very strongly on benefits which can be measured and expressed as a cost, i.e. through price, time and quantity. This can strongly restrict the understanding of benefits.

4.2.5 Other measurement frameworks

Several IT industry vendors and analysts have developed their own frameworks for evaluating the benefits of IT projects. In response to Gartner's findings that existing private sector frameworks are inadequate, Accenture has adapted the principles of Shareholder Value Analysis (SVA) to help justify IT investment in the public sector[24]. SVA forecasts a company's future profits, discounts them to account for economic growth and inflation and then sums them to provide a current market valuation. A public sector analogy might establish suitable financial measures of intangible or hard-to-measure benefits such as transparency and competitiveness and factor them into a similar equation to value the benefits of proposed IT investments.

The Citizen Advantage model developed by Deloitte uses a bottom-up approach to evaluate the benefits of eGovernment to economic competitiveness[25]. If it is assumed that eGovernment can reduce the time needed to comply with regulation, the Citizen Advantage model evaluates this time in financial terms and aggregates it across the economy.

A range of benefits measurement frameworks have been covered, some of which have won awards for excellence, most of which are recognised as having their particular strengths. Some combination of or variation on these frameworks should form a fundamental part of all eGovernment projects, to ensure that the project's benefits are evaluated early on (perhaps even used as a basis for budget approval) and then tracked throughout the project lifecycle to ensure that they are in fact delivered.

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[24] This Book Presents the Public Service Value Model an Innovative, Rigorous Approach to Defining Public Outcomes and Quantifying Results, M2 Presswire, Sep 06
[25] Citizen Advantage: Enhancing economic competitiveness through eGovernment, Deloitte, http://www.deloitte.com/dtt/newsletter/0,1012,sid%253D15288%2526cid%253D26079,00.html accessed 23 Nov 07.

Chapter 5 Leading Countries in eGovernment

In this section the importance of country setting and structural landscape when comparing performance across countries is examined, and the findings from the case study analysis at a country strategic level are summarised.

5.1   Introduction

Setting is a key influencer when choosing what eGovernment services to implement, as this will determine delivery effectiveness, degree of change, use of services, and ultimately the impact of eGovernment across a country. Below, an approach to eGovernment delivery is outlined, which sets out the various implementation stages on the journey to e-enablement.

Understanding the structural landscape and setting will determine how a country will approach what it can change in any given timeframe and cost, in relation to eGovernment services. It is also important that countries focus not only on online availability but also take-up and impact of services. eGovernment should be considered in the broader context of multi-channel, multi-organisation delivery of public services from back office right through to customers.

Figure 14: Overview of Country Setting in the context of eGovernment Delivery
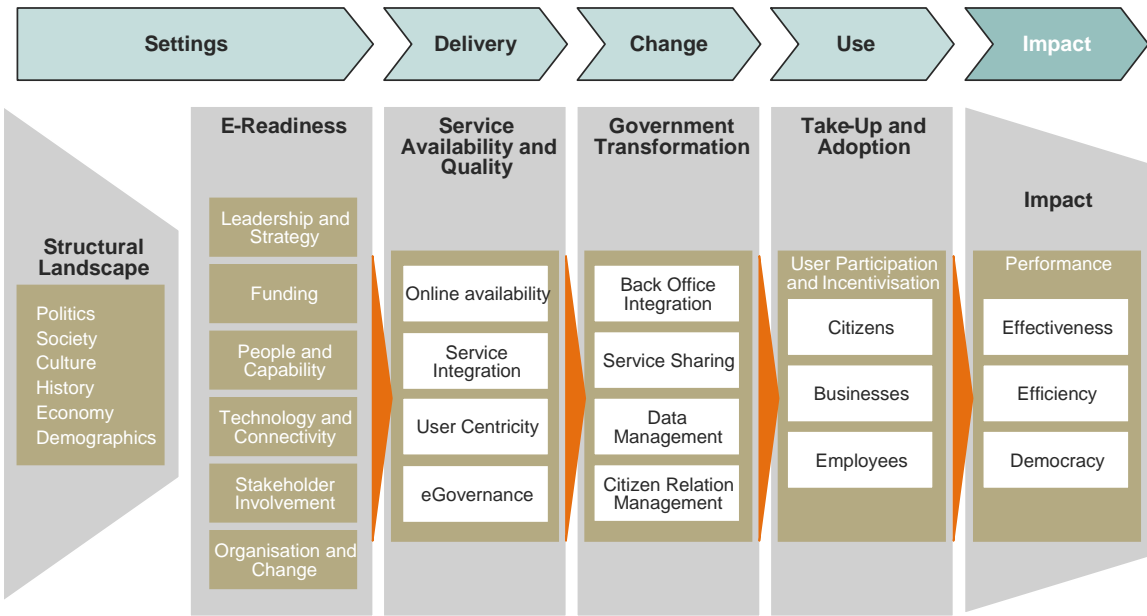
Source: Capgemini, 2007

Setting

Structural landscape and e-readiness describe the characteristics of a country which influence its ability to deliver effective eGovernment services. Setting however is an important characteristic, as it creates the context when comparing eGovernment between countries such as Singapore and the US. Examining eGovernment from this perspective provides insight for other countries in a similar setting, to learn from.

Delivery

In order to deliver online services, Governments should consider their approach to online availability, service integration, user centricity and governance. Delivery strategy should be aligned with the overall vision for eGovernment services, but also influenced by the setting environment.

Change

Government transformation is not just about providing individual services online, but about interoperability across agencies and providing services to customers. Governments need to adapt their organisational settings and collaborate across agencies by using back-office integration, service sharing and data management, etc.

Use

In order to drive take-up and adoption, Governments need engage stakeholders in the design of services, and provide incentives to encourage them to use an online channel. Stakeholder participation however does not just include users, but all groups who are or will be affected by eGovernment services.
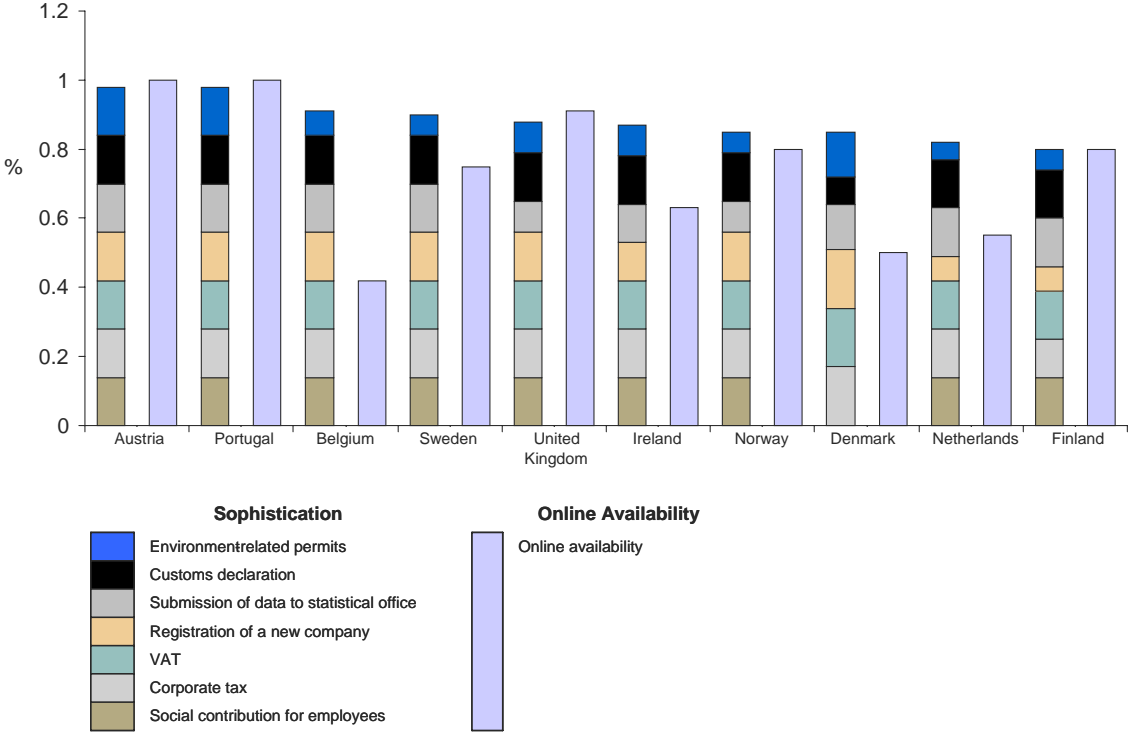
Impact

The successful adaptation of the four components of setting, delivery, change and use will result in impacts on the effectiveness, efficiency and democracy of Government. Measuring these impacts ensures that success can be defined.

5.2   Comparing Countries based on quantitative data

While there is some quantitative data available to compare cross country performance in the delivery of eGovernment services, it is not a true indicator of a countries eGovernment progress and ranking.

For example, the graph below shows online availability and sophistication of eGovernment services across several EU countries, however this does not take into account some of the key aspects outlined above around take-up, user-centricity and how these services impact effectiveness, efficiency and democracy in eGovernment, or important measures on how eGovernment is delivering benefits to business and Government.

Figure 15: Comparison of Online Availability and Sophistication of eGovernment Services

Sophistication
- ■ (blue) Environmentrelated permits
- ■ (black) Customs declaration
- ■ (grey) Submission of data to statistical office
- ■ (tan) Registration of a new company
- ■ (teal) VAT
- ■ (light grey) Corporate tax
- ■ (olive) Social contribution for employees

Online Availability
- ▮ Online availability

Source: "Online Availability of Public Services: How is Europe Progressing?", Capgemini for the European Commission Directorate General for Information Society and Media, 2007

As most countries have a different approach to how they deliver eGovernment services, ranking outcomes alone, is not an accurate reflection of how successful these countries are, nor does it account for differences in country setting.

In the next section, a different approach to country ranking based on qualitative data is proposed, which is a more flexible and comprehensive way of comparing countries progress in delivering eGovernment services.

5.3   Summary of Case Analysis (by Country)

In this section, the findings from the analysis conducted in Chapter 8 (using the "principles" framework) is summarised. The four principles most relevant to policy design are mapped and each country's performance on a "maturity matrix" are identified. The four principles are:

- Political Leadership;
- Proposition & Channel;
- Stakeholder Participation;
- Technology Approach.

Country performance is mapped in terms of Technology Approach along the x-axis, Leadership along the y-axis, and combined Proposition & Channel with Stakeholder Participation to determine bubble size.

The framework can be flexed to compare other aspects of country performance. For example, for eGovernment implementation, the principles could include Stakeholder Participation, Programme Management, Finance & Contracting, Technology Approach, Capability Development and Performance Management.

Figure 16: Country Maturity Matrix
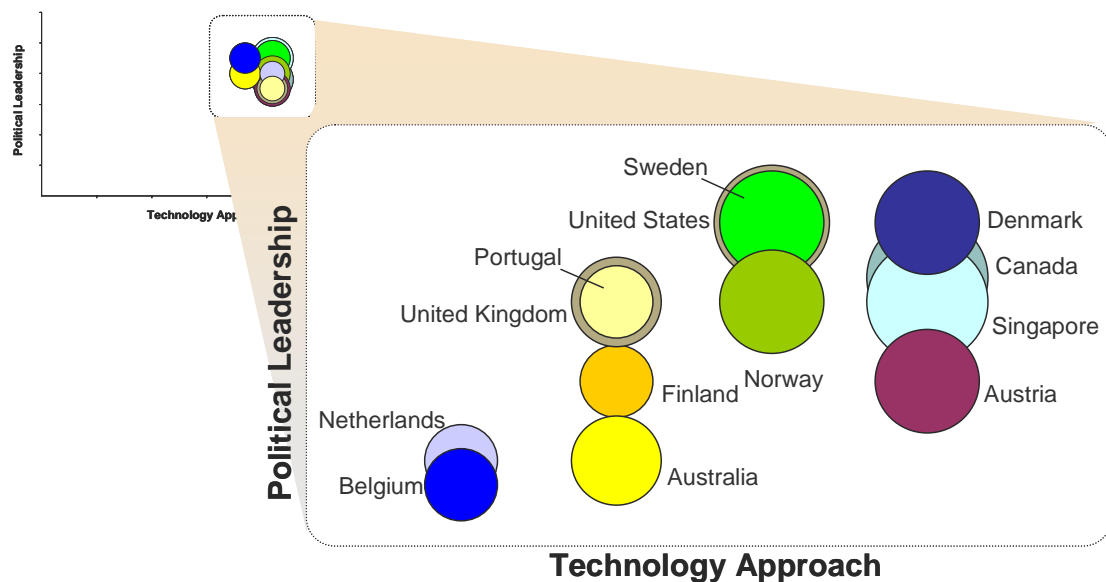
Source: Capgemini Analysis

Austria has a medium ranking in terms of political leadership and vision as it has clear lines of responsibility (there is a CIO at national level), close co-operation across national, federal and regional tiers of government, and close collaboration between local authorities and business.

It excels however in its Technology Approach, whose characteristics are:

- A government-wide electronic record system and e-billing for small and medium enterprises;
- A standard format for the exchange of electronic files, replacing paper-based filing and archiving across central government;
- Avoidance of format mismatches by defining three standard transaction types which enable process integration, and connect businesses accounting systems with public servers.

Australia has a medium rank along all axes. In terms of leadership, its strategy —"Responsive Government: A New Service Agenda", focuses on service transformation and better value for citizens and government. Each level of government does create and implement its own eGovernment strategies, taking into account one another's directions (but not necessarily collaborating to ensure alignment).

There is no formal strategy around IT cross-government collaboration in Australia, but there is a framework to facilitate it ("Information Interoperability Framework"). As agencies adopt this framework, the government believes it will see dramatic improvements in information exchange and re-use.

The "Business.gov.au" website, developed by the Department of Industry, Tourism and Resources, is Australia's first whole-of-government service delivery initiative and as such constitutes a breakthrough as a customer value proposition.. Users enjoy improved business transactions with federal, state and local government. The site also helps businesses to find, manage and complete government forms online without having to understand the structure of government or individual agencies

Canada is one of the highest performing countries in this ranking. Political Leadership is focused on delivering a "Public Sector Service Value Chain" to underpin Canada's plans to reconstruct the way it delivers programs and services, streamline and standardise business processes, and rationalise the infrastructure that supports government operations. eGovernment has been on the political agenda for a long time and the government has always ensured proper funding for eGovernment programmes.

In addition, there has been a strong focus on what citizens and businesses actually want. The Government has undertaken surveys and conducted focus groups to understand the customers. Canada has also formed an advisory committee of prominent citizens, business people and academics to advise Ministers on implementing the eGovernment initiatives.

From an infrastructure perspective, Canada continues to make steady progress. "Secure Channels" aim to eliminate the need for federal departments and agencies to build their own security and network infrastructure, and to ensure an integrated approach to online authentication. This was made mandatory in 2007, which should improve the return on the significant investment made.

Canada has also invested heavily in other technology areas:

- Development of policy, technical standards (e.g. "Common Look and Feel"), legislation, and privacy;
- Development of measurement tools and a communications/promotion program;
- Development of departmental staff to enable them to work in the new online services environments and interfaces with clients;
- Development of common technology infrastructure such as Digital certificates and common networks.

Denmark benefits from a favourable environment for the development of eGovernment: present and past governments developed policies that emphasised the social and economic benefits which the use of ICT in Government can achieve. The current nation-wide Structural Reform Programme aims to create a simpler and more efficient public sector with increased cohesion.

While eGovernment has not been a headline policy, it has been clearly positioned as a key element of policies aimed at transforming Denmark into a modern information society. Structural reform has dominated organisational change in Government, and although eGovernment is not mentioned as an explicit goal of these reforms, it is clearly an enabler of the reform process.

Market analyses, usability tests and opinion surveys are regularly done to improve understanding of users and then incorporated into service design. From 2008, payments between public authorities and business are being carried out through EASY Accounts. Denmark's approach is innovative, even radical, and has clearly brought significant benefits and is now considered by a number of other EU countries.

The Government-wide channel strategy has three clearly defined objectives goals: easier access to public authorities, increased single contact issue resolution and coordination of the three main channels (phone, in person and Internet).

In terms of Technology Approach, digital signatures provide a secure means for Danish companies and the public administration to communicate. 95% of Danish public authorities have now implemented digital signatures and are able to receive secure email. In addition, the country pursues open competitive standards in order to enable cross platform and cross vendor interoperability.

Finland is medium ranked in terms of leadership and technology, and low ranked in customer proposition and stakeholder participation.

The "Strategy for Finland", released in September 2006, aims to turn Finland into an internationally attractive, humane and competitive society, addressing the four pillars of leadership in customer in customer service.

Norway's high ranking in Customer Proposition and Stakeholder Engagement is a result of its successful Altinn portal which provides joined up information and services for business and strong collaboration among government agencies.

Its relatively high Political Leadership score is a result of its willingness of "thinking new and asking questions", which, e.g., during the tax Er@-program led to the development of simple and easy-to-use services. In addition, charismatic leaders such as the Minister of Modernisation managed to encourage cross-departmental collaboration while strategy documents and action plans such as the Strategy for ICT in the public sector and the eNorway plan have been developed to ensure a holistic and stepwise approach.

Cross-government collaboration however is one of Norway's weaker areas. A number of other studies, including studies from the OECD, conclude that Norway must develop a more committed coordination between public-sector players.

From a Technology perspective, Norway successfully introduced a common 'TIN' (Personal Identification Number) and has good quality the back-office systems. In addition, the Altinn portal has furthered the establishment of standards and collaboration across departments.

eGovernment in The Netherlands is a multi-department issue rather than a centralised one and Political Leadership does not appear to be particularly strong. On the plus side, changes in government have not changed the overall strategic direction for the Netherlands' customer service program.

One of the key technological enablers for cross-government collaboration and integration is the DigiD three-tiered authentication service as a key of greater.

While there are a number of notable initiatives to promote greater citizen-centricity in service delivery, there appears to be less of a focus on business stakeholders. The two key overarching programs that address the issue of providing better services to citizens are "Action Program for a Different [Better] Government" and "Actions for the Connected Netherlands, Sequel to the Nationwide ICT Agenda 2006-07".

Portugal's eGovernment enjoys strong Political Leadership, with direct sponsorship from the Portuguese Prime Minister. Modernising the public administration is very much on the agenda, as the Portuguese government looks for ways to pursue economic growth, make Portugal more competitive and improve services to citizens and businesses.

The Portuguese Government has created a new agency to act as the implementation arm of the Coordination Unit of Administration Modernization (UCMA). The creation of the Agency for Administration Modernization (AMA) is perhaps the most significant change in Portugal's service program from last year. It will centrally manage various customer service initiatives (such as eGovernment initiatives, citizen service delivery models and so on) that had previously been handled by diverse institutions

Portugal, with its low Internet penetration and a culture that favours face-to-face contact, struggled somewhat to find its footing in terms of customer proposition and stakeholder engagement. However, since 2005 a one-stop shop service for setting up a business and an Enterprise Portal with a pilot online service have been set up.

Sweden's approach to eGovernment is for the Government to centrally determine the mission and the overall goals and targets for each department while eGovernment implementation is the responsibility of each government agency, under the supervision of the Ministry of Finance. This works well and is an example that tier structure does not need to impede eGovernment delivery.

The two cornerstones of Sweden's Technology Approach are (1) secure identification of users across eGovernment and public services (including private transactions) and (2) the Swedish Government e-link (SHS), which is used for the secure transport of data via the open Internet. The open information infrastructure is further improved by an initiative to develop XML Schemes that define frequently used standard messages.

Sweden excels in terms of customer proposition and stakeholder participation as it focused on both regulatory change and IT enablement which significantly reduced the administrative burden on business (especially SMEs).

Singapore[26] provides strong political leadership through the iGov Council which provides policy and strategic planning on all programmes under the iGov2010 master plan. The Permanent Secretary of Finance chairs the iGov Advisory Panel, which consists of representatives from both the public and private sector. The Panel advises on global trends in eGovernment and their impact on Singapore, and gives feedback on improvement areas in eGovernment services.

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[26] iGov.sg, Singapore eGovernment 2006 – iGov 2010: From Integrating Services to Integrating Government, 2006

Its eGovernment programme is the ongoing leader in customer service rankings due to its strong combination of an innovative customer centric vision and entrepreneurial attitude. eGovernment services are widely used and perceived as easy to use due to its One-Stop Government Portal for businesses and the consistent and unified look across different websites and e-services through Web Interface Standards.

From a technology perspective, Singapore has started to develop a "Government Enterprise Architecture" which takes a holistic view of business functions and provides infocomm systems and services at Whole-of-Government level irrespective of the agency.

In the UK, the Cabinet Office plays a central role in providing guidance and setting standards for the use of information technology in government and the delivery of government services. There is clear ownership for key themes such as delivery, performance, capability and transformation which are taken forward by the Delivery and Transformation Group (DTG) within the Cabinet Office. On a day to day basis, Transformational Government remains the responsibility of the Chief Information Officer Council, the Chief Technical Officer Council and the Delivery Council.

eIdentification and eAuthentication are provided via by a central platform called Government Gateway. This is a central registration and authentication engine which enables secure authenticated eGovernment transactions to take place over the Internet. However, the ongoing debate about the future of the UK's ID card scheme raises questions about the extent to which security and authentification processes can be made more user-friendly.

The US' eGovernment programme aims to use improved internet-based technology to make it easy for citizens and businesses to interact with the government, save taxpayer dollars, and streamline citizen-to-government communications. Progress on eGovernment continues to be measured through quarterly milestones (agreed by agencies) and results are made publicly available. This has proven to be a powerful motivator for agencies.

In terms of Proposition and Stakeholder Engagement, "USA Services" deals with multi-channel contact and is managed by the General Services Administration. Its goal is to provide citizens' information about and from all levels of government through an array of integrated information channels including a portal, USA.gov (formerly firstgov.gov), telephone and email inquiry response from the GSA.

Chapter 6 High Impact Services

In this Chapter, the definition of high impact services is explained, and the prevalence of eGovernment solutions among such services is discussed.

6.1   Definition of High Impact Services

High impact services are those that make the greatest difference to businesses and Government. Identifying and implementing these services improves stakeholder commitment and thus drives uptake[27].

Best practice development of a national eGovernment strategy includes prioritisation of services for e-enablement. As there is increasing demand for eGovernment to demonstrate an attractive return on investment, it is useful to think about Government to Business (G2B) services in terms of what impact they have on both Government and business.

The matrix illustrated in Figure 17 provides a conceptual framework for the identification of high impact services. From a government perspective, high impact services are those that cause high costs (either in terms of cost of administration or in terms of lost revenue). From a business perspective, high impact services are those that combine high cost of compliance, are repeated frequently, and occur at a time of "high angst" (such as setting up a new business).

Figure 17: Defining High Impact Services
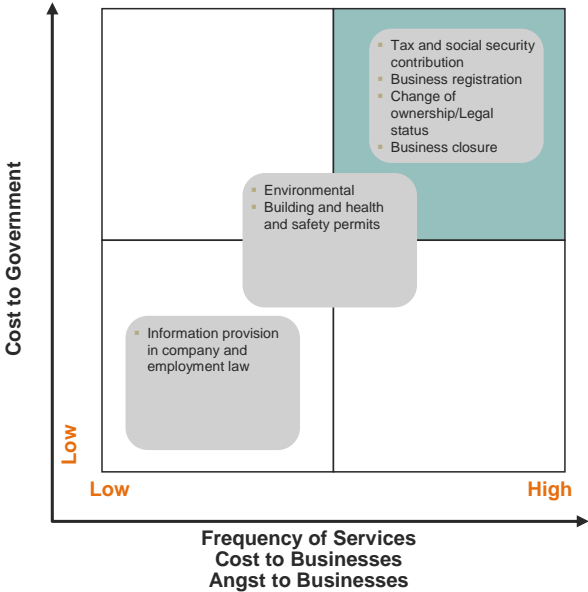
Source: Capgemini, November 2007

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[27] European Commission, eGovernment Progress in EU27+, Reaping the Benefits, 2007

The graph below maps Government services to the business lifecycle. The e-enablement of recurring events such as tax and import/export services is likely to have a greater impact than one-off interactions with Government such as registering a change in legal status or change in ownership. In terms of impact, there is also a difference between services that are used frequently by all businesses (such as tax) and those that are used exclusively or mainly by certain sectors (such as requests for environmental or building permits).

Figure 18: Services That Enable Key Stages in the Business Lifecycle
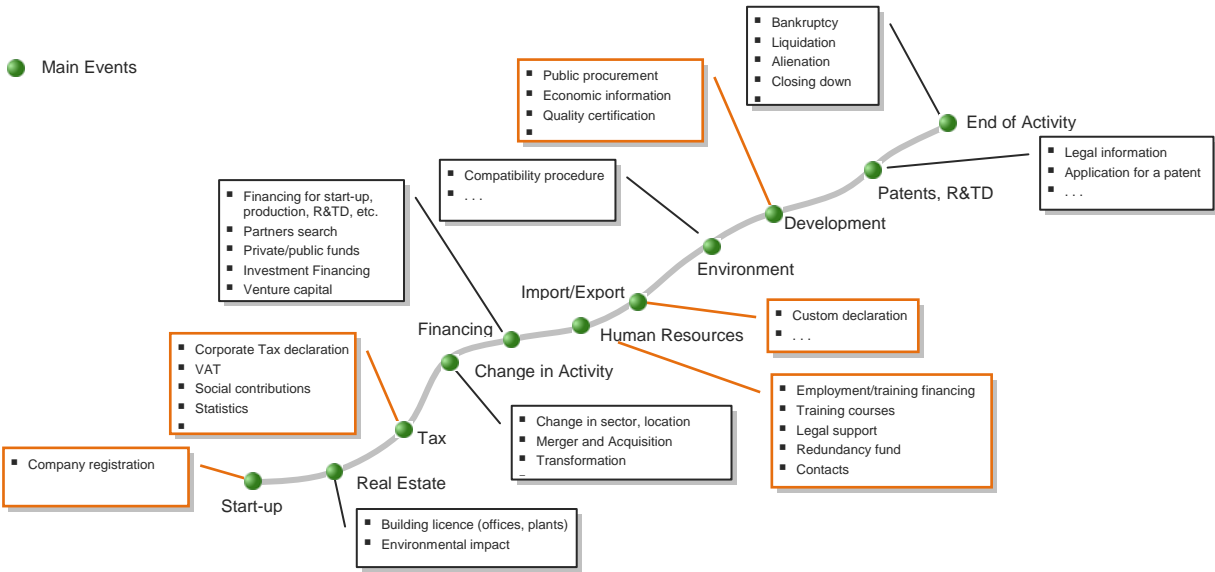
Source: "Delivering 21st Century Customer-centric Public Services", Capgemini, September 2007

Clearly, administrative cost and burden will be experienced differently from within a small local enterprise and from within a new division of an international company. A simplified, e-enabled process can generate great benefits for small and micro enterprises. Both design and delivery mechanism of high impact services thus need to take into account the needs of different business types (such as small, medium and large), as does any national eGovernment strategy.

In practice, Governments have not always given priority to high impact services[28].

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[28] European Commission, European eGovernment 2005-2007: Taking stock of good practice and progress towards implementation of the i2010 eGovernment Action Plan, 2007

The European Commission's status review of e-enabled public service delivery measures availability and online sophistication of eight business services. These are corporate tax, VAT, registration of a new company, submission of data to the Statistical Office, customs declaration, environment-related permits, social contribution for employees and public procurement[29]. The levels of sophistication across these services vary quite significantly in most countries. Perhaps unsurprisingly, income generating services such as tax score highest in terms of availability and sophistication.

However, this is set to change. The European Commission has set its Member States the task of identifying and improving high impact services. With the exceptions of Czech Republic, Malta, Poland, Romania, the Netherlands and the United Kingdom, many EU countries already have a policy in place on high impact services[30].

Ireland is examining a list of five services that all carry a particularly high administrative burden for business; these fall into the categories of Tax, Health & Safety, Environment, Provision of Statistical Information and Employment & Company Law[31]. Analysis for Ireland has identified those services as areas placing a high administrative burden on businesses[32] and where administrative burden reduction initiatives and eGovernment were considered to have the greatest impact across other best practice countries.

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[29] Capgemini, Online Availability of Public Services: How Is Europe Progressing?, 2006
[30] European Commission, European eGovernment 2005-2007: Taking stock of good practice and progress towards implementation of the i2010 eGovernment Action Plan, 2007
[31] High-Level Group on Business Regulation First Report, Department of Enterprise, Trade and Employment, July 2008.
[32] Report of the Business Regulation Forum, Business Regulation Forum, 2007

6.2   Examples

This section reviews selected examples of high impact eGovernment service delivery, and the issues around successful implementation.

6.2.1   High Impact Services – eProcurement

Public procurement is considered a key domain of the EU economy, accounting for approximately 16% of GDP[33]. Expanding procurement services into electronic procurement, through initiatives led by the European Commission, has resulted in the modernisation and opening up of procurement markets across borders, leading to improved efficiency of procurement processes. eProcurement and eGovernment in general are seen as tools to reform public administrations and modernize structures. As such, eProcurement services are among the most advanced and mature in eGovernment.

Countries within the EU are at different stages of development with regards to e-enablement of the stages of Procurement. These stages have been defined as:

- Tender notification;
- Tender publication;
- Tender submission;
- Tender evaluation;
- Ordering; and
- Invoicing.

The simplest applications of eProcurement use ICT / e-enablement only in the publicity phases – that is, tenders can be published online, or, even more simply, news about the publication of a call for tenders can be made available online. More complex ICT infrastructure is necessary in order for potential suppliers to accept offers online, and even more complex systems are needed for electronic management and purchasing of supplies, which require shared standards for electronic data exchange for ordering, invoicing, accounting and payment phases.

The benefits derived from using eProcurement systems are varied. The most obvious and easily measured are the benefits to Government through lower cost of goods and services, as centralised ordering makes it possible to purchase goods in bulk and reduce unit costs, and improves competition and market mechanisms. eProcurement can also widen the base of potential suppliers (both in geographic terms and in terms of the size and number of potentially interested firms), and improve the flow of information.

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[33] http://ec.europa.eu/internal_market/publicprocurement/e-procurement_en.htm

eProcurement processes are also a good way of promoting transparency in public tenders. Systems can register bids automatically and prevent any review before bids are closed. Minimising human intervention can also make it easier to identify individuals managing the procurement process and make them more accountable. These features make eProcurement attractive in places where corruption is widespread or where corruption can negatively impact on the functioning of public sector markets and contracts. In Turkey, the process of online tendering has helped to fight corruption and increase transparency in procurement[34].

Figure 19: Main goals of eProcurement in EU countries
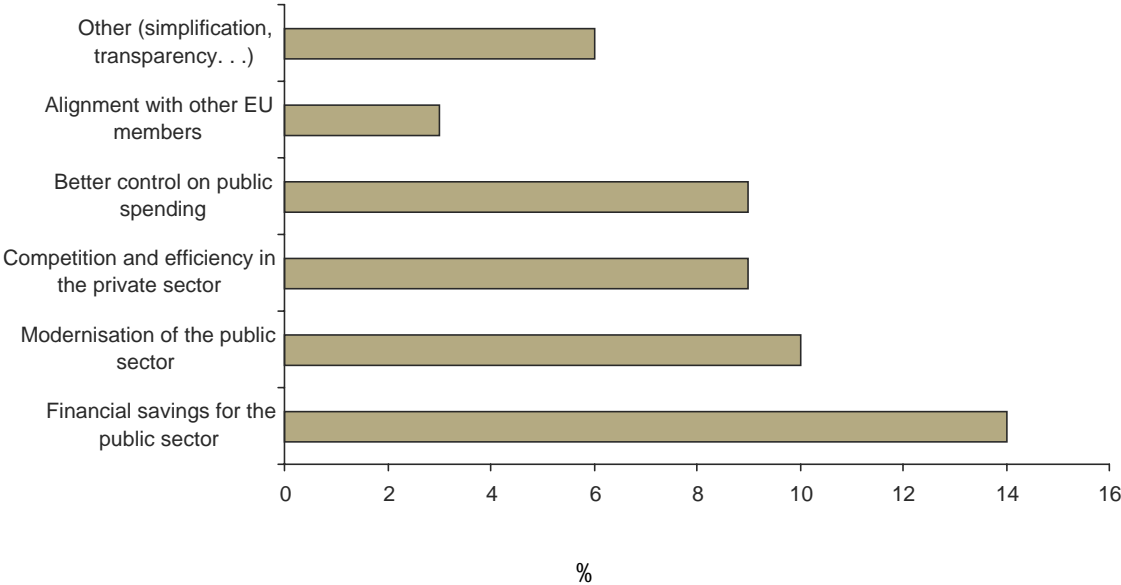
Source: E-Procurement in a Euro-Mediterranean Comparative Context (paper), Giuseppe Pennella, Head of Research and Development, Formez, Naples, January 2006

An eProcurement system can be fully implemented when each process step as defined above, is handled electronically. The degrees to which selected countries have e-enabled stages within the procurement process are shown in the Figure 20.

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[34] Focus Interview, France, November 2007.

Figure 20: Degree of Implementation of e-Procurement Steps in EU countries

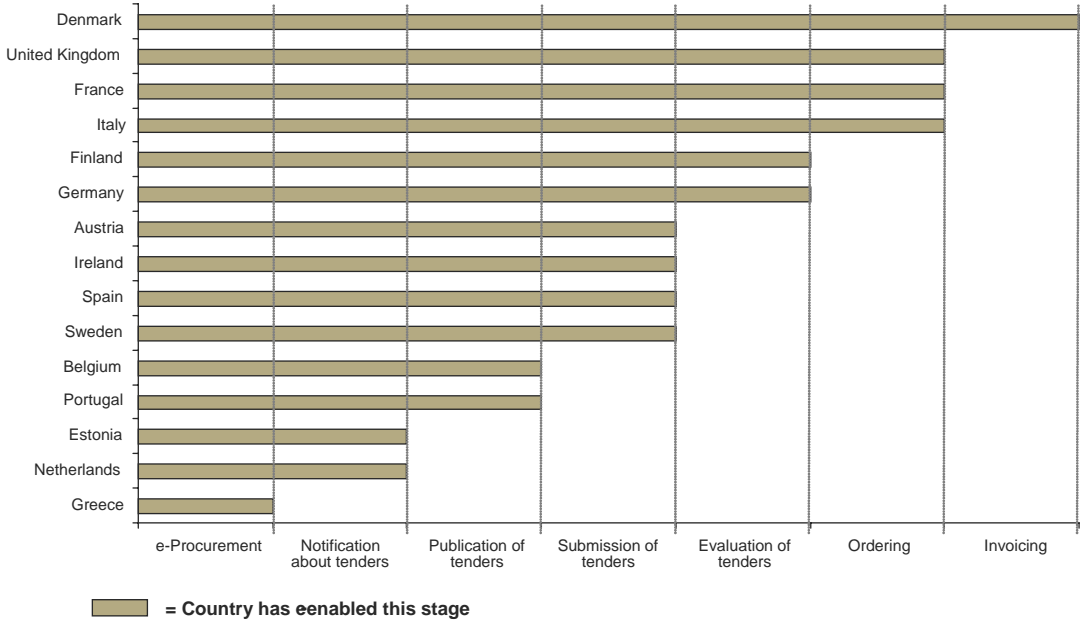|	e-Procurement	Notification about tenders	Publication of tenders	Submission of tenders	Evaluation of tenders	Ordering	Invoicing

■ = Country has eenabled this stage

Source: E-Procurement in a Euro-Mediterranean Comparative Context (paper), Giuseppe Pennella, Head of Research and Development, Formez, Naples, 20-31 January 2006

As shown above, Denmark and the UK are advanced in their implementation of eProcurement, in particular Denmark, which became the first country in the EU to implement the general use of e-invoicing. Broadly, countries which are relatively advanced are those in Scandinavia and Western Europe, which are also more developed in terms of governance and technological infrastructure.

For some countries, eProcurement is considered to be only a small part of the broader eGovernment programme, so that while eProcurement services may be quite advanced, eGovernment may be relatively lacking.

Since 2006 in Austria, legal requirements dictate that all federal officials must present public bids online, at www.lieferanzeiger.at. This public information and the accompanying documents required for bidding are presented online so that all potential bidders are able to register interest, so that they can be automatically updated on developments related to the procurement procedures of a bid. Additionally, information collected from the bids is automatically sent in an XML format to the official European gazette for public information[35].

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[35] http://www.epractice.eu/resource/739

The Swedish Government has not implemented a central electronic public procurement portal as this is deliberately left up to private operators. Several privately owned and operated portals exist instead, some of which concentrate on public procurement. However, a Public Procurement information portal, maintained by the Swedish National Financial Management Authority, serves as a database containing information about the different framework agreements procured centrally by the Swedish Administrative Development Agency, and available to national authorities, government agencies, regions and municipalities. An authority can thus use the information portal to locate the necessary information about a framework agreement, whereas the procurement process is further handled by the authority itself (by electronic or traditional means)[36].

There is currently no central eProcurement infrastructure in the UK. However, the OGC operates (through its trading arm OGC Buying Solutions) Catalist, a catalogue-based electronic procurement scheme. Catalist provides public sector organisations with a simplified means of procuring and contracting for a wide range of products and services (information technology, telecoms services, professional services, facilities support), based on a series of Framework Agreements signed by OGC Buying Solutions with a number of suppliers. OGC and OGC Buying Solutions have set up an eProcurement platform called Zanzibar, which went live in March 2006. Zanzibar consists of an eProcurement hub including 3 features: an electronic marketplace containing details of Public Sector supplier contracts, a Purchase to Pay solution, and a pan-Public Sector data warehouse. It is available through a single point of access for buyers and suppliers. For local government procurement, the Improvement & Development Agency has developed IDEA marketplace, a web-based, central ordering system that allows the whole purchase to pay process to be conducted electronically. A National e-Procurement Project was also been launched as part of the local e-government strategy to deliver standard eProcurement tools for local councils[37]. The English progress is still somewhat emergent. Scotland has demonstrated considerable progress with their eProcurementScotl@nd initiative. This has been operational from early 2002 and is a managed service available to all public sector bodies. It has to date adopted 70 public sector bodies processing more than 600,000 orders; with 40,000 suppliers; and a spend throughput in 2007 of around £2bln; achieving ~£200 million in savings. Importantly the adoption increased very substantially as a result of political (Ministerial) public commitment to the programme.

In March 2006, the Norwegian Government released a legal package providing updated rules for future public procurement. The revised provisions allow for eProcurement as a fully accepted alternative to the traditional way of doing business. The new provisions require public bodies to register all important steps and decisions throughout the procurement process for contracts valued above NOK 100,000[38].

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[36] http://www.epractice.eu/resource/735
[37] http://www.epractice.eu/resource/715
[38] http://www.epractice.eu/resource/718

6.2.2 High Impact Services – Tax

Tax services are amongst the most advanced and mature in terms of eGovernment. Tax is of particular importance to Government since increased efficiency here translates into higher revenue generation. The recurring nature and complexity of taxes such as corporate tax and VAT reporting create a high degree of administrative burden for businesses and Governments and have therefore been identified as high impact services early on. In addition, corporate and value added taxes are, in most cases, administered by one central Government body, i.e. there is no need to involve and coordinate different Government bodies. This simplifies the set up process from design through to implementation significantly. As a consequence, most European countries have introduced electronically enabled tax declarations and reporting services, as illustrated below. Ireland was among the first movers to introduce a full-service on-line interface for revenue returns, Revenue-on-line, which is among the most advanced systems in developed economies.

Figure 21: Online availability of corporate tax (Declaration and Notification) in %

100 % ("full online availability": status granted to all services that reach the sophistication stages Transaction (full electronic case handling) or Personalisation (pro-active automated)	Sweden Austria Belgium Netherlands UK	Norway Denmark Portugal Ireland
0%- 80 % ("not full online availability" : contains sophistication stages Information, One Way Transaction and Two Way Transaction)	Finland (75%)	

Source: Capgemini, The User Challenge Benchmark The Supply of Online Public Services, 2007

Figure 22: Online availability of VAT (Declaration and Notification) in %

100 % ("full online availability": status granted to all services that reach the sophistication stages Transaction (full electronic case handling) or Personalisation (pro-active automated)	Sweden Austria Belgium Finland Netherlands	UK Norway Denmark Portugal Ireland
80 % ("not full online availability" : contains sophistication stages Information, One Way Transaction and Two Way Transaction)		

Source: Capgemini, The User Challenge Benchmark The Supply of Online Public Services, 2007

The availability of tax services online does not necessarily make these eGovernment initiatives a success as the wide range of user uptake illustrates, specifically:

- In the UK during the 2006/2007 financial year only 7.2% of returns were filed electronically for Corporate Tax and 7.8% for VAT, respectively[39];

- In Norway, by contrast, 74% of tax returns for business enterprises and the self-employed were submitted electronically in 2006/07. The share for VAT returns was 67%[40].

Another useful measure is compliance costs. These can be high in countries such as Spain, Finland and The Netherlands, which all have compliance costs of over 260 hours per year[41]. This is 25% higher than the average of the top 13 best practice countries identified by the World Bank[42].

However, countries with online tax filing capability average a compliance cost per firm of 44 days per annum against 58 days for those that do not. This indicates an improvement through eGovernment. However achieving a break-through in effectiveness requires a review of the regulatory processes themselves[43]. eGovernment can make a considerable difference, but e-enabling processes and procedures that are broken to start with does not (usually) fix them.

Existing electronic tax services were often designed at a time when eGovernment was driven by cost reduction and increased automation. This has at times led to inflexible solutions whose legacy is often enshrined in processes. Another issue is that typically, back-office functions have not been transformed sufficiently to take advantage of the (additional) online channel. These points will be discussed further in section 7.7 (Technology Approach). Another common problem is that services are designed with existing government processes rather than the customer in mind.

The following table ranks countries based on the ease of paying taxes and the compliance cost in hours. The rankings on the ease of paying taxes are the average of the country rankings on the number of payments, time and total tax rate.

It shows that Ireland is among those leading the table for ease of payment. There is, however potential to reduce the number of times businesses need to comply when comparing it with non-EU countries such as Singapore.

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[39] National Audit Office HM Revenue & Customs, Filing VAT and Company Tax Returns
[40] Norwegian Ministry of Trade and Industry, Electronic Services for Business and Industry, 2007
[41] PriceWaterhousCoopers and the World Bank, Paying Taxes The global picture, 2006
[42] Capgemini, How countries measure up on number of payments and compliance cost in Tax, 2007
[43] Capgemini, How countries measure up on number of payments and compliance cost in Tax, 2007

Figure 23: Who Makes Paying Taxes easy and Preparation time taken to comply with Taxes

Who makes paying taxes easy? (2008)	
Country (*reviewed in report)	Rank
Maldives	1
Singapore	2
Hong Kong, China	3
UAE	4
Oman	5
Ireland*	6
UK*	12
Denmark*	13
Switzerland	15
Norway*	16
Luxembourg	17
Netherlands*	36
Sweden*	42
Belgium*	65
Portugal*	66
Austria*	80
Finland*	83

Preparation time taken to comply with taxes (2008)		
Country (*reviewed in report)	Rank	Time to comply (Hours per year)[44]
Maldives	1	0
UAE	2	12
Singapore	3	49
Luxembourg	4	58
Oman	5	62
Switzerland	6	63
Ireland*	9	76
Hong Kong, China	13	80
Norway*	16	87
UK*	22	105
Sweden*	30	122
Denmark*	37	135
Belgium*	49	156
Austria*	57	170
Netherlands*	60	180
Finland*	98	269
Portugal*	123	328

Source: PriceWaterhouseCoopers and the World Bank, "Paying Taxes The Global Picture", 2008.

To reduce the burden on businesses countries should aim to simplify tax law, consolidate taxes and ease filing requirements. eGovernment can be used to enable the latter by making electronic filing and payments available to businesses online. Electronic invoicing and archiving offers businesses the opportunity to reduce the costs of compliance at a tangible unit cost level[45].

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[44] Time is recorded in hours per year. The indicator measures the time to prepare, file and pay (or withhold) three major types of taxes and contributions: corporate income tax, value added or sales tax, and labour taxes including payroll taxes and social contributions.
[45] PriceWaterhouseCoopers and the World Bank, Paying Taxes The global picture, 2006.

The following countries have been identified through the analysis of case studies and through interviews with eGovernment experts as being most advanced in offering electronically enabled tax services. Each of these cases demonstrates strengths and weaknesses in different areas.

Figure 24: Overview of Tax-Specific Case Studies

Country	Tax-Specific Case Studies (Corporate Tax and VAT)
Australia	ATO and ABR
Austria	FINANZOnline
Denmark	SelfKey
France	The Copernic Programme
Germany	Elster
Greece	TAXISnet
Italy	'Il fisco telematico - Entretel
Norway	Er@programme
Portugal	Seg-Social
Spain	AEAT portal
Sweden	Skatterverket.se
USA	EFTPS

Source: http://www.epractice.eu

Singapore, together with Ireland, was one of the pioneers in easing filing requirements by using the online channel. In 1998 the Internal Revenue Authority of Singapore launched an e-filing system. Today filing taxes is entirely paperless (except for verification receipt) and takes just a day[46].

FINANZOnline is Austria's electronic platform for communication between citizens, businesses, financial trustees, lawyers and the local communities and other administrations with the tax authorities. It also functions as a data transmission system for Austrian Public Finance between these stakeholders. The Austrian case is a good example of how stakeholder involvement helps to develop a good, robust single portal solution.

The Danish Tax Authorities (SKAT) have introduced a fully transactional corporate tax declaration and payment system which enables businesses to do their tax returns online. Time and cost savings for businesses have been achieved through both a better offer of electronic tax services and the reduction of reports and rules.

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[46] PriceWaterhousCoopers and the World Bank, Paying Taxes The global picture, 2006.

The Norwegian Tax Administration in 2001 introduced the Er@ programme, an internet portal that communicates with businesses in a common 'look and feel'. It was developed in collaboration with three other government agencies. This case demonstrates the importance of strong political leadership, of collaboration across Government and the advantages of a single portal offering online access to citizens and businesses.

In Portugal corporate tax can be declared online through the Seg-Social service. Portugal is another good example where strong political leadership practice has enabled change; Portugal became a best practice country in Europe within a year. Portugal jumped from an online availability rating of 60% in 2006 to 90% in 2007 and is now ranked 3rd place in Europe.

Spain has reduced processing time and cost and has been able to improve service quality through its AEAT business portal. Spain provides online services tailored to the needs of the different types of tax payers and is a good example of a building a solution based on an understanding of customer behaviour and needs.

Sweden introduced electronic tax returns due to high demand from large companies and is an interesting example of user led change. Companies can now fulfil all tax declaration and payment requirements electronically.

Electronic tax services can offer businesses added value as declarations can be processed faster and payments due are received earlier. In addition, it allows for quicker and easier conduct of business with government e.g. through electronic pre-population of forms, or assurance that tax returns are correct. Further benefits are the reduction of employees' time spent on administrative processes (e.g. filing VAT return).

In Chapter 7, the insights gained from talking to eGovernment experts in the countries of the above six case studies are mapped against the nine principles of the eGovernment delivery framework, to demonstrate how these can be applied in practice.

6.2.3 High Impact Services – Company Law

Four different G2B services are covered under the heading of "Company Law":

- New business registration;
- Change to ownership or legal status of an existing business;
- Patent or trademark registration;
- Business closure.

Business registration is probably the most high-impact of these. Typically, traditional government structures require businesses to deal with a number of separate agencies in a way that suits the administration's internal processes. Each department only deals with "their" part of the process while from the business perspective, setting up a company is a single process that causes unnecessary delays and administrative burden.

Business registration has been identified as a high impact service since e-enabling it can potentially bring significant benefits to both Government and business, at a time that is often very stressful from a business perspective.

Benefits to business include:

- Cutting the elapsed time it takes to set up a business;
- Reducing time spent;
- Reducing registration fees.

In Portugal, for example, the cost of online registration for a trademark is 50% cheaper than via the traditional route; the cost of patent registration is 30% cheaper[47].

Benefits to Government include:

- Reducing time spent (typically for several agencies);
- Reducing cost (as online self-serve is significantly cheaper than face to face and telephone contact);
- Better quality data, as there are no mistakes through re-keying;
- Encouraging the development of new businesses and hence driving economic growth, especially in the SME sector;
- Better visibility of economic activity (again, especially for the SME sector) and potentially more tax income.

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[47] Ministerio da Justica, Portugal Simplifies, 2007

The report on benchmarking online service availability indicates that the registration of a new company is currently not fully possible online in every country, with Denmark and Sweden being examples of high availability[48].

Figure 25: Online availability (of company registration) in %

100 % ("full online availability": status granted to all services that reach the sophistication stages Transaction (full electronic case handling) or Personalisation (pro-active automated	UK Belgium Norway Denmark Sweden Portugal Austria
0% - 80 % ("no full online availability" : contains sophistication stages Information, One Way Transaction and Two Way Transaction)	Ireland (75%) Finland (50%) Netherlands (50%)

Source: Capgemini, "How countries measure up on number of payments and compliance cost in Tax", 2007

In Sweden, Bolagsverket (responsible for company registration) and Skatteverket (responsible for company taxation) have taken a joint approach to provide eServices that make it significantly easier to start a business and do any other registry changes. Foretagsregistrering.se is a single portal that deals with all processes relating to registration matters, replacing the need to fill in paper forms for different authorities.

Foretagsregistrering.se had around 10,000 users a week by mid 2006. It registered 55,000 new business enterprises in 2007 and processes a total of 600,000 cases per annum. Overall, 20%-30% of all new applications are currently handled by the new one-stop shop and this percentage is growing rapidly. In addition, 60% of SMEs in Sweden are aware of the service offer[49].

The percentage of applications submitted online via the Bolagsverket's new one stop shop is 20-30% and growing rapidly.

Sweden's willingness to both re-think existing processes and to get different agencies to collaborate in the best interest of the customer have been essential in creating the new e-enabled registration service.

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[48] Capgemini, The User Challenge Benchmark The Supply Of Online Public Services, 2007
[49] http://www.epractice.eu/cases/foretagsregistrering

In Spain, new limited companies are now able to register on-line. The new service has cut the number of forms to be filled in by entrepreneurs to just one - a unique electronic document. It has also reduced the number of face-to-face visits needed to set-up a limited company to just two – one to a PAIT (nationwide network of Enterprise Creation Advisory and Initiation Points) and one to a notary. Information needed by other agencies is forwarded automatically by the Enterprise Information and Creation Network Centre (CIRCE). While the Spanish system still requires time consuming face-to-face visits, processing times have been shortened with a registration process now taking just 72 hours[50].

In addition, there are plans to enhance registration services by adding a range of information and advisory services to entrepreneurs; this is a good example of how Government can use e-services to reach out to new customers.

In Denmark[51], the Danish Commerce and Companies Agency (DCCA) is the main government actor in the registration process. The agency runs Webreg, the self-service online registration system for companies. It also keeps the new company's data in the Central Business Register – a register containing primary data on all businesses within Denmark.

In the past Danish companies could wait up to two months to receive certification when applying for a registration or change registration. At the same time DCCA had costs for case handling. Webreg has made it possible to found a company or to change one of Denmark's 520,000 businesses in a few minutes with the help of a digital signature. As a result, the number of company registrations and changes it accounts for has increased from 7,000 in 2000 (8% of total registrations) to 46,500 in 2004 (52% of total registration). The waiting time for businesses could be reduced significantly in 2004 by a total of 16,800,000 hours nationally in comparison with paper based registration[52].

Up-take has been very impressive, with around 80% of all professionals who submit company information on the behalf of a client use Webreg. One of the reasons for the service's success is that is not only allows the submission but also the registration of information. eGovernment services which only allow submitting information seldom provide significant benefits.

In addition the DCCA saved the cost of 14 employees who were no longer required to handle registration cases.

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[50] IDABC eGovernment Observatory, European eGovernment News Roundups, 2007
[51] http://www.epractice.eu/cases/1819
[52] http://www.epractice.eu/cases/1819

The Estonian[53] Company Registration (CReP) system allows the registration of a company through an e-filing portal within a few working days. New businesses can electronically submit an application for registration either as a standard or an expedited procedure.

The service registers new businesses and can also be used to change entries for existing companies. Currently CReP does not allow the submission of a petition for the merger or the division of a legal entity. It is also not possible for foreign citizens to register a legal entity as their data cannot be checked automatically. Since the beginning of 2007, when CReP was launched, 25% of the petition entries for registering private limited companies have been submitted through the portal, and the percentage is growing every month[54].

In Portugal[55], e-enablement has helped to cut the number of visits to government offices required to incorporate and register a single-member or limited liability company to one visit to a single office, irrespective of the new company's location. The articles of association are registered and published immediately, and the new company is then automatically allocated a registered web domain.

The new initiative aims to support the growth of the Portuguese economy by removing bureaucratic barriers faced by entrepreneurs. In addition to simplifying and speeding up the company creation process, the new service also offers lower costs for entrepreneurs. Indeed, the service is priced at EUR 360 (EUR 300 for companies in the areas of new technologies or research & development) plus stamp duty, making the cost of creating a new business in Portugal lower than in many other EU Member States.

The Portuguese Ministry of Justice has promoted a varied set of initiatives aiming to improve relationships with citizens and companies. The table below details how the initiative "Portugal Simplifies" has incorporated technology and simplified procedures with users in mind.

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[53] Centre of Registers and Information Systems (RIK), Company Registration Portal (CReP), 2007
[54] http://www.epractice.eu/cases/crep
[55] Ministerio Da Justica, Portugal Simplifica, 2007

Figure 26: Overview of "Portugal Simplifies" Initiative

Portugal Simplifies	
On-the-Spot Firm	▪ Incorporation and registration of a single-member or limited company in one visit to a single office, irrespective of the new company's location
	▪ The articles of association are registered and published immediately on the Ministry website at http://publicacoes.mj.pt/, with free public access, and the company is automatically allocated a registered web domain, ".pt", with the company's name on the Internet.
Online Company Incorporation	▪ Incorporation and registration of commercial and civil companies of various types, single-member and limited liability companies, merely by accessing the official Portuguese business website (Portal da Empresa) and using your digital certification number
	▪ When a user requests authentication for the first time, the information provided by the Digital Certificate is displayed (name, e-mail, address and tax identification number)
	▪ It is also possible to update contact information (address or email)
Online Registrations	▪ Online application for company registry acts to the transfer, unification, pledge, attachment, seizure and redemption of quota-shares; registration of powers of attorney/agency agreement, rectification and cancellation of registrations by deposit made online; appointment, re-appointment and departure from office of company officers and of the secretaries of companies by quota shares and limited liability companies; merger and de-merger proposals; conversion of provisional registrations; transformation of companies; amendments to articles of association; merger and de-merger
One-Hour Trademark Service	▪ Immediate obtaining of a pre-approved trademark, pre-registered in the name of the State. The trademark may be obtained online through the Portal da Empresa
Online Trademark Service	▪ Online application for the registration of a trademark, logo or establishment name, with a 30% discount on charges
Online Patents	▪ Protection for inventions and designs can be applied for an obtained online, with discounts of 50% and 30% respectively on the charges
Simplified Company Information	▪ Companies can now file accounts and submit annual accounting, statistical, fiscal and financial information to the public authorities by using a single online form available at www.ies.gov.pt.
	▪ The charges can be paid in ATMs or through homebanking services.
	▪ After payment, the act is registered and published automatically at http://publicacoes.mj.pt/ and the company is issued with a permanently updated commercial registration certificate
Permanent Certificate	▪ The Permanent Certificate is an online Companies Registry certificate, constantly updated, showing current registry entries and applications for registration and filing, for companies and other organisation subject to official registration
	▪ The certificate may be obtained by anyone at www.empresaonline.pt.
	▪ When the certificate is requested, the applicant is sent a code by SMS and email which may be presented to any public or private entity instead of a paper certificate
Online Publication of Company Information	▪ The acts of companies and cooperatives, such as articles of association and any amendments, appointment and resignation of company officers, change of registered offices or resolutions to redeem or convert shares, are now published online.

Source: Ministerio Da Justica, Portugal Simplifica, 2007

In Slovenia, a one-stop-shop for entrepreneurs enables Slovenians to register their businesses and transfers their tax data automatically to the tax administration. The system also allows the reporting of data needed for health and pension insurance, and the submission of a draft permit application. In 2006, the system had over 5,000 more sole traders using the system compared with 2005. Estimated annual savings at the beginning of the project amounted to €1,500,000 year for customers[56].

With the exception of Spain, the best practice examples identified are from smaller countries. As mentioned before, setting up a new business is a particularly stressful time for SMEs. It appears that as many smaller countries have grasped the importance of this sector for their economy, they have moved to set up e-enabled processes that support the sector. User uptake has been significant, reflecting the degree to which the administrative burden on smaller entrepreneurs has been lifted.

6.2.4   High Impact Services – Statistical Requirements

For the purpose of this report, the submission of statistical reporting is split out as a separate service. This is an example of a frequent, repetitive activity that is of direct benefit only to the Government; it is therefore considered to be a potential high impact service, even though it does not fall into the "high angst" category.

Currently more than 50% of the EU27 countries offer the submission of statistical data to Government online[57].

Figure 27: Online availability of statistical data (submission of data to statistical offices) in %

100 % ("full online availability": status granted to all services that reach the sophistication stages Transaction (full electronic case handling) or Personalisation (pro-active automated)	Sweden Austria Belgium Finland Netherlands Portugal
0% - 80 % ("no full online availability" : contains sophistication stages Information, One Way Transaction and Two Way Transaction)	Denmark (80%) Ireland (80%) UK (60%) Norway (60%)

Source: Capgemini, How countries measure up on number of payments and compliance cost in Tax 2007

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[56] European Commission, eGovernment Progress in EU27+, Reaping the Benefits, 2007
[57] Capgemini, The User Challenge Benchmark The Supply Of Online Public Services, 2007

The increased use of digital reporting and the increase in organisations' electronic communication make the reporting of statistical requirements an obvious choice for e-enablement. There is however a question to which extent the obvious benefits to Government are passed on to business, as some of the examples outlined below illustrate.

The main challenges from an implementation perspective relate to data sharing across the receiving government departments, namely the set up of standards and the implications for database requirements. Irrespective of the extent to which processes are simplified, business benefits are limited to savings on printing and postal costs.

In Norway, the Altinn project has meant that all statistical reporting from firms and institutions is done through one integrated system [58]. This has made the process significantly easier for business. Slovenia's eVem project is a company registry system that also enables the submission of statistical data to the statistical office[59].

Denmark's Statbank has gone as far as to transform its processes through IT supported statistical data production and has made significant progress towards achieving its overall objective of increasing its worth to society and reducing the administrative burden on businesses. Digitalisation of data has enabled Statbank to better tailor its services to customers. As a consequence sales of services have increased by 3%. Further results have been that the printing office, which was part of Statbank Denmark was closed from 1 January 2007 as it was no longer considered necessary. In addition, the number of tests has been reduced, and the detecting of errors has been improved due to the support IT tools offer [60].

Another good example is Portugal, where companies can file accounts and submit annual statistical, fiscal and financial information to the public authorities by using a single online form. After payment the act is registered and published automatically, and the company is issued with a permanently updated commercial registration certificate[61]. Combining and automating these processes as much as possible carries higher benefits to business.

Germany's eSTATISTIK.core has been less successful. It aims to simplify the process of submitting data for businesses and authorities and allows businesses to compile statistical data automatically from their accounting systems and electronically transmit this data to the statistical offices. This project was a combined effort by the statistical offices at federal and regional (Länder) level[62].

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[58] Transfer-East eGovernment to Business – Report on 10 G2B Good Pracitces selected for the Technology Transfer Actions, 2007
[59] Ibid.
[60] Ibid.
[61] Ministerio Da Justica, Portugal Simplifica, 2007
[62] Transfer-East eGovernment to Business – Report on 10 G2B Good Pracitces selected for the Technology Transfer Actions, 2007

However, the system is highly complex and runs on a number of exceptions which appear to be mainly informed by Government need. This raises serious questions about benefits to business, and again is another example of a large, federally structured country being behind the curve when it comes to effective, customer centric eGovernment delivery.

6.2.5   High Impact Services – Other

Under "other", G2B services such as environmental, health & safety and building permits are grouped. These are far less common than the services discussed in the sections above, and it is again smaller countries such as Austria, Estonia, Malta and Portugal which appear to lead the way.

Figure 28: Online availability (of environmentally related permits) in %

100 % ("full online availability": status granted to all services that reach the sophistication stages Transaction (full electronic case handling) or Personalisation (pro-active automated)	Austria Portugal	
80 % ("no full online availability" : contains sophistication stages Information, One Way Transaction and Two Way Transaction)	Denmark (80%) UK (60%) **Ireland (60%)** Belgium (48%)	Sweden (40%) Norway (40%) Finland (40%) Netherlands (36%)

Source: Capgemini, How countries measure up on number of payments and compliance cost in Tax 2007

Germany offers an electronic licensing procedure for pesticides. It allows for a fully electronic application process for pesticide licenses which includes the submission of data in an EU-wide standardised format.

Finland has introduced a one-stop-shop for polluting businesses to report information concerning their emissions. This information is stored on a database which contains all environmental information such as permits, pollution reports and decision documents.

It is not entirely clear why permit applications tend not to be e-enabled; it could be that permits are typically issued by local authorities, making co-operation more difficult (e.g. due to the need to agree application format and standards for data sharing across many local authorities); or it could be that since permits are not used with equal frequency by all businesses, they are considered less important by Government.

However, easing the process of permit application is important for certain economic sectors such as construction (new and renovations) and manufacturing, and again, SMEs are likely to benefit the most.

Chapter 7 Principles of Successful eGovernment

This section evaluates the nine principles of successful eGovernment delivery introduced in section 2.3 (Theoretical Model — eGovernment Delivery Framework). These are Political Leadership, Proposition & Channel, Stakeholder Participation, Finance & Contracting, Performance Management, Programme Management, Process Change, Technology Approach and Capability Development. This part of the report evaluates to which extent individual countries apply these principles to their delivery of eGovernment and highlight best practice examples.

7.1   Political Leadership

In this section the importance of political leadership, one of the key enablers of eGovernment delivery, is discussed. For the purpose of this report, the three aspects of 'political leadership' are defined as:

- Creating eGovernment vision;
- Providing political backing;
- Developing a holistic and long-term plan.

Political leadership should provide more than strategic direction and alignment between Government and business stakeholders. Ideally it should drive professional leadership in the public sector through a mixture of accountability and incentive setting.

eGovernment Vision

Canada developed a clear vision of customer-centred technology-enabled service improvement in the mid/late 1990's. This has provided a clear and sustained platform for delivery of their eGovernment programme since then. The result of which is that Canada is viewed as a global reference on eGovernment. It has involved and mobilised political leadership at both federal and provincial levels. Of late and importantly this has resulted in delivery models that involve one province providing service delivery tools as a lead province for others. Typically this involves services that are more pertinent to the setting of that particular province. This "collaborative leadership" is particularly prominent in Canada.

The figure below gives on overview of which of the countries this report focuses on has an eGovernment study, and since when. It is interesting to note that Norway's and Sweden's strategies, while well established, have not been updated since 2000.

Figure 29: Overview of eGovernment Strategies in Selected Countries

Country	Title	Year published
Austria	ABC Guide to eGovernment in Austria	2004
Belgium	Cooperation agreement	2006
Denmark	The Danish eGovernment Strategy 2004-06	2004
Finland	National Knowledge Society Strategy 2007-2015	2007
Ireland	1. Information Society Ireland – A Strategy for Action	1996
	2. Implementing the Information Society in Ireland – An Action Plan	1999
	3. New Connections - A Strategy to realise the potential of the Information Society	2002
Netherlands	Modernising Government programme	2004
Norway	eNorway Action Plan	2000
Portugal	eGovernment Action Plan	2003
Sweden	A public administration in the service of Democracy	2000
UK	Transformational Government - Enabled by Technology; plus the more recent and holistic Transformational Service Agreement	2005
		2007

Source: various national eGovernment websites

The importance of a clear vision has been demonstrated across leading countries for eGovernment. Norway for example has a well-established central eGovernment vision (eNorway) and strategy, both of which are based on the wider vision of modernisation of the public sector[63].

Similarly the Swedish approach is for the Government to centrally determine the mission and the overall goals and targets for each department. The agencies are independently managed and operate under a performance management regime. The Swedish Agency for Public Management provides support to Government by conducting studies and evaluations and in modernising public administration[64].

Denmark benefits from a favourable environment for the development of eGovernment as past and present governments have developed policies that emphasise the potential social and economic benefits of ICT use in Government. eGovernment itself has not been a headline policy, but it has been clearly positioned as a key element of policies aimed at transforming Denmark into a modern

[63] OECD eGovernment Studies: Norway Assessment
[64] Booz-Allen-Hamilton, Sweden Country Report – Successful ICT enabled initiatives in government, 2005

information society, increasing public sector efficiency and improving the performance of the economy.

Singapore has a clearly articulated and well integrated vision that views eGovernment as "a means to reinvent government" with ICT as a key enabler[65]. Its eGovernment Action Plan II (eGAP II) aims to transform the public sector into a networked government where agencies collaborate, share information and leverage collective knowledge, in line with the "Many Agencies, One Government" service delivery paradigm[66].

The UK's Service Transformation Agreement published in October 2007[67] describes six strategic actions that cover a comprehensive vision of service transformation. In doing so the UK has built technology enablement into the fabric of service delivery:

1   Learning from citizens and businesses.

    The best service providers in the public, private and third sectors start by ensuring that they have a real evidence-based understanding of the behaviours of the people they are trying to reach, including by directly engaging with end users. The Government's vision is that it establishes across the public sector a culture and systems which make this a routine.

2   Grouping services in ways that are meaningful to the customer.

    Each service solution offered by the public sector is what Sir David Vaney's report described as "...a child of its time and circumstances. . .", presenting the citizen and business with a fragmented picture which can appear to have little relevance to the task in hand. This is inefficient for government and frustrating for the user. The Government's vision is to develop ways in which the public sector can offer integrated packages of services which respond directly to the tasks which citizens and businesses face in their day to day lives and which offer a timely response to immediate needs.

3   Rationalising services for efficiency and service improvement.

    Public sector structures and processes allow a proliferation of websites, helplines, and front offices which make little sense to those they are intended to reach. The performance of services is managed individually with little opportunity for comparison. The Government's vision is to present a service framework which is similar, clearer and more accessible.

4   Making better use of the customer information the public sector already holds.

    The types of transformation covered by this Agreement will simply not be possible unless the public sector can establish the identity of the customer it is dealing with simply and with

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[65] iGov.sg, 2005 Report on Singapore eGovernment, 2005
[66] Accenture, Leadership in Customer Service: Delivering on the Promise, 2007
[67] Service Transformation Agreement, October 2007

certainty, and be able to pass relevant information between different parts of the government. This is especially important for identifying vulnerable groups in society and assessing their needs and entitlement to support.

5   Linking local and central government.

Ensuring that public service delivery is joined up across both central and local government is a key component of this agreement and the Government recognises that successful service transformation is dependent on close collaborative working between departments and local government bodies. This is reflected in the alignment of central progress measures and the local government performance framework, and in the establishment of the Local Government Delivery Council (LGDC) to mirror at local level the central role of the Delivery Council.

6   Engaging front line staff.

The public sector will seek to harness the energy, input and customer insight of front line staff who it believes are strongly committed to the vision and are well placed to deliver service improvements.

Providing Political Backing

A well articulated eGovernment vision is of little value without sound implementation. Political support and commitment by senior politicians and influential individuals can help to align public sector organisations and achieve buy-in from stakeholders in business. The personalisation of this leadership and commitment is of particular importance[68]. Even if the political backing comes from a committee rather than an individual it is useful for stakeholders to be able to put a face" to leadership.

In Norway, for instance, Minister of Modernisation Morten Andreas Meyer managed to encourage cross-departmental collaboration through his charisma and by transcending his role. He convinced the Norwegian Government of the importance of centrally coordinated electronic services and influenced other departments to work collaboratively with his[69].

In Portugal the implementation of electronic tax services was far from widely supported within Government when the Seg-Social project started. There was thus a need for strong political backing to align departments and develop a collective understanding of the benefits of eGovernment[70]. Today, eGovernment initiatives receive direct sponsorship from the Portuguese Prime Minister[71] which was a key enabler behind the rapid improvement from 2006 to 2007 discussed above[72].

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[68] Focus Interview Portugal, November 2007
[69] Focus Interview Norway, November 2007
[70] http://beep.jepponet.dk/egovIndia/ShowAnalysisReport.asp?IDFocusAnalysis3=19
[71] Focus Interview Portugal, November 2007
[72] Capgemini, The User Challenge Benchmarking The Supply Of Online Public Services, 2007

Most recently, José Sócrates underlined Portugal's recent efforts to increase eGovernment initiatives in his opening speech at the 4th Ministerial eGovernment Conference: "All countries with political will and determination can obtain good results from eGovernment. It was due to this determination that Portugal, in the last two years, rose from 14th to 3rd place in the availability of online services and is now in the 4th place in the provision of better quality services in the EU"[73].

In the UK, eGovernment is also prominently positioned at the heart of government. The Cabinet Office plays a central role in guiding and setting standards for the use of information technology in government and the delivery of government services. Delivery and Transformation Group (DTG) within the Cabinet Office takes forward key themes of delivery, performance, capability and transformation.

Taking Transformational Government forward on a day to day basis remains the responsibility of the Chief Information Officer Council, the Chief Technical Officer Council and the Delivery Council – bodies representing both the technology and business sides of government and the wider public sector.

Professional leadership has also helped to drive forward eGovernment implementation. Globally, ten countries have established whole-of-Government CIO-type positions to help drive their eGovernment agenda[74]. Within the EU, only the UK and Austria have CIOs both of whom report at senior levels within Government – in Austria the CIO reports directly to the Prime Minister, whereas in the UK the CIO reports to the Permanent Cabinet Secretary, who in turn reports to the Prime Minister.

In all Governments with CIO-type positions, each CIO works in a setting where change in Government is being demanded in some way, whether due to demand for increased electronic service delivery or to help instil new thinking in operating departments. In some cases, policy decisions are enforced by budget processes, to which the CIOs provide advice to the budget director or Finance Minister on whether to fund certain projects.

The role of the CIO has evolved in Government, and two different types of CIO jobs have emerged. In the first, the primary responsibility is for IT policy and advising Government transformation, whereas the position is not responsible for the implementation or operation of infrastructure. In the second, the CIO has responsibility for the ownership and operation of the information and communications technology infrastructure and plays a role in policy and transformation[75].

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[73] As quoted on http://www.megovconf-lisbon.gov.pt, Lisbon Sept. 2007
[74] The Emerging Role of the National Government CIO, John Kost, Gartner, 16 November 2005
[75] The Evolving Role of the Government CIO, John Kost, Gartner, 10 February 2006

However, the most common responsibilities of the CIO includes setting enterprise standards, leading strategic planning IT processes and providing budget advice. There has also been a trend to provide CIOs with procurement authority.

Creating a CIO position will not by itself achieve successful eGovernment outcomes. A CIO, regardless of the responsibility held, can be successful only if the Governments political leadership and senior executive management understand the role of IT and empower CIO for effective management and utilization[76].

Holistic and Long-term Planning

A holistic and long-term plan translates vision into achievable and realistic objectives. A long-term plan is of particular importance to be able to incorporate learnings, give projects the opportunity to generate benefits and enable measurement of these. Politicians serving in democratically elected governments often focus on the generation of short term benefits of eGovernment initiatives[77], so continuing to push forward a long-term plan developed by predecessors can be a challenge in those circumstances.

In Norway strategy documents and action plans, such as the Strategy for ICT in the public sector and the eNorway plan, were developed with a holistic and stepwise approach in mind[78]. One of the learnings from the Swedish Revenue and Tax case study has been that the implementation of a long-term strategy generates by far the most positive results[79].

Singapore's Intelligent Nation 2015 (iN2015, or "in twenty fifteen") is a particularly strong example of holistic planning. One integral component is iGov2010 (launched in May 2006). This $2 billion, five-year master plan aims to achieve a higher level of public service by harnessing IT to further simplify, standardize and streamline government processes to accomplish an integrated government. It also includes the Next Generation Infocomm Infrastructure (NII) which focuses on delivering both wired and wireless broadband across the country with the ultimate goal of a pervasive, nationwide wireless broadband network. This infrastructure will "enable a floodgate of exciting new broadband-enabled services and applications" across seven key economic sectors in Singapore, including government[80].

Clear Accountability and Incentive Setting

Accountability can operate at both organisational and personal level. Examples of the former include Denmark, where the top-level responsibility for eGovernment resides with the Danish

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[76] The Emerging Role of the National Government CIO, John Kost, Gartner, 16 November 2005
[77] Focus Interview EC, November 2007
[78] http://www.epractice.eu/cases/1811
[79] ePractice Sweden
[80] Accenture, Leadership in Customer Service: Delivering on the Promise, 2007

Ministry of Finance. This responsibility is exercised through a unique set of institutional arrangements which are overseen by the Joint Board of eGovernment[81].

Another successful example is Sweden where the Government commissioned the National Tax Board for the SAMSET project to coordinate the establishment of standards such as administration of certificates for electronic identification and electronic signatures. This gave the Board the political backing and power needed to drive implementation across other departments[82].

An example of personal accountability comes from Singapore, where Permanent Secretaries of Ministries, Heads of Organs of State and Chief Executive Officers of Statutory Boards are responsible for the ICT infrastructure and services in their organisations. They are assisted by their CIOs; however, accountability ultimately rests with the person running the organisation[83].

Effective accountability depends strongly on how well results can be measured. The UK has taken the route of setting a comprehensive list of targets (against which public sector performance is measured), at both national and local level. These have not always been entirely effective in the past. For example, in 2005 an agency of the Department of Works And Pensions set up online forms to apply for benefits. These forms were however not linked to its back-office, and the agency had to hire additional staff to print out and re-key the electronically submitted forms[84]. While this initiative met the Government's e-enablement targets, it added to costs rather than to efficiency savings. The new (Public Service Agreement – PSA) targets are cross-Departmental and are limited in number. This rationalisation has occurred across Government to provide a focused group of targets that require 'joined-up working'. A combination of monitoring progress against these targets, with significant constraints to budgets sets a challenging context that provokes transformational actions. The maturity of developments within the country is such that there is an implicit understanding that delivery of this transformation can only be done with the support of modern ICTs.

[81] OECD – OCDE, Peer Review of eGovernment in Denmark, 2005
[82] Booz Allen Hamilton, Sweden country report – Successful ICT-enabled initiatives in government
[83] iGov.sg, 2005 Report on Singapore eGovernment, 2005
[84] Interview with Capgemini SME, November 2007

Summary of Key Questions on Political Leadership

Political Leadership Policy Implications

- Do you have a clearly defined eGovernment vision and strategy?

- How is your eGovernment strategy linked to your country-objectives?

- Is your eGovernment strategy customer or efficiency driven, i.e. use a "Customer in" vs. "Administration out" approach?

- Have targets been set to achieve your objectives?

- Do you have a governance model that ensures successful implementation and measurement of progress?

- Do you have a Country CIO or a Transformation Director who centrally decides and coordinates eGovernment initiatives?

Political Leadership Programme Implications

- Are you aligning your political leaders, directors and senior managers across participating organisations?

- Do you encourage cross-departmental collaboration?

- How visible is your leadership and does it encourage progress in eGovernment?

7.2   Proposition & Channel

eGovernment services must be developed with the user in mind. The term "customer centricity" reflects the development of a compelling value proposition through a deep understanding of customers and their needs, a clearly defined channel strategy and a comprehensive service prioritisation. The aim is to provide business centred, integrated one-stop access points to services that link different government agencies and can be accessed through multiple channels.

Leaders in the most advanced eGovernment countries have realised that they are reaching the limits with current approaches to customer centricity. eGovernment to date has had a strong focus on internal processes and cost savings. Existing infrastructures were rarely built with the customer in mind or a view to service provision. However – as outlined in the section on global trends – recently there has been a clear shift away from simple electronic enablement to Government transformation. Norway and Denmark, for instance, have started to implement new internal structures and processes which reflect a customer centric approach and differ dramatically from previous ones[85].

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[85] Accenture, Leadership in Customer Service – Building Trust, 2006

Providing a Compelling Value Proposition

Providing a compelling value proposition is a central element to achieving a customer centric approach. This needs a clear and deep understanding of who the customers are and what service options attract them. It also includes the willingness to re-think existing services and regulations in line with customer needs.

A world leader in customer-centricity is Canada. This is the result of a decade and a half of leadership and management focus on understanding and designing services around the needs of the customer, whilst minimising bureaucratic intervention and leveraging modern technologies. The trust of customers has taken time to develop, however the end result of having done so is a basket of services that are relevant, efficient and deliver levels of quality that are measured on a regular basis through customer feedback. The Canadian government survey businesses every two years (each other year is a survey of citizens). The result shows increasing satisfaction in public services and greater satisfaction in many areas to those services delivered within the private sector. This open feedback cycle as a key input to service (re-)design is a leading practice.

One of the lessons learnt in Denmark when implementing the Online Business Registration system was that users needed to be taken seriously. It was not enough to hypothesise user needs and behaviour, neither was it enough to believe that the system itself would change the habits of businesses. Market analyses, usability tests and surveys were therefore undertaken to gain a better understanding of the user which was then incorporated in the designing of the service[86].

A further example of the consideration of customer needs is the case of the Company Registration eService Företagsregistrering in Sweden. When developing the systems, users' needs were taken into account by working with Bolagsverket (responsible for company registration issues) and Skatteverket (responsible for company taxation issues) to reduce the number of portal visits necessary to register a business[87]. Today this is one of the top eGovernment services provided to SMEs in Sweden[88].

Sweden also provides access to its "Virtual Customs Office" (VCO) through a single portal or window. The system provides 150 e-services, including electronic customs declarations and application for export and export licenses. From a user perspective, this makes access significantly easier and straightforward. It can also be integrated into the companies' business system which provides additional benefits such as updating changes in exchange rates, tariff codes and duty rates[89].

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[86] http://www.epractice.eu/cases/1819
[87] DG Information Society and Media European Commission, Prepared for the eGovernment Unit, 2007
[88] http://www.epractice.eu/index.php?page=search&q=e-VEM
[89] http://www.tullverket.se/TargetGroups/General _English/frameset.htm

When customers access a government service they typically have an issue that they want resolved in one step, rather than having it resolved in several stages by different departments. The Altinn portal enables the Norwegian government to act as one administration[90] by providing joined up information and services for businesses, and represents an area where of strong collaboration between agencies[91]. This allows one-stop access to services with cross-departmental linkages working in the background that create real value to businesses through simplified processes and reducing the number of transactions required.

Nevertheless, limited efforts have been made at central Government level to understand user preferences. While a strong user focus has been embedded into Norway's eGovernment strategy only few agencies have taken concrete action to engage customers in the development of their service offer[92]. Customer centricity however is not simply about offering services through one single interface but needs to involve the additional step of adaptation of service offers to meet customer needs.

The UK is another case where this has not happened yet. For example, Her Majesty's Revenue and Customs (HMRC) still offers its online tax services organised by tax type and has different back office systems dealing with corporate and value added tax. While this is largely a legacy of having two separate agencies dealing with tax (Inland Revenue and Customs and Excise), it is also an example of designing services that fit Government processes rather than business need.

Spain by contrast has taken this next step by delivering services that are more attractive to businesses by organising them according to the type of tax payer (large company, SME's tax practitioners, professionals and other tax payers) on their AEAT website[93]. The service offer is tailored to customer needs, making the system easier to use.
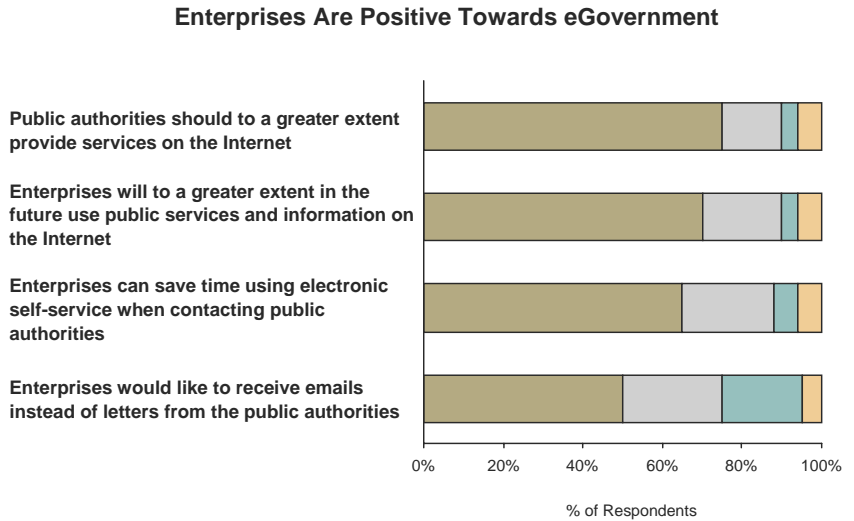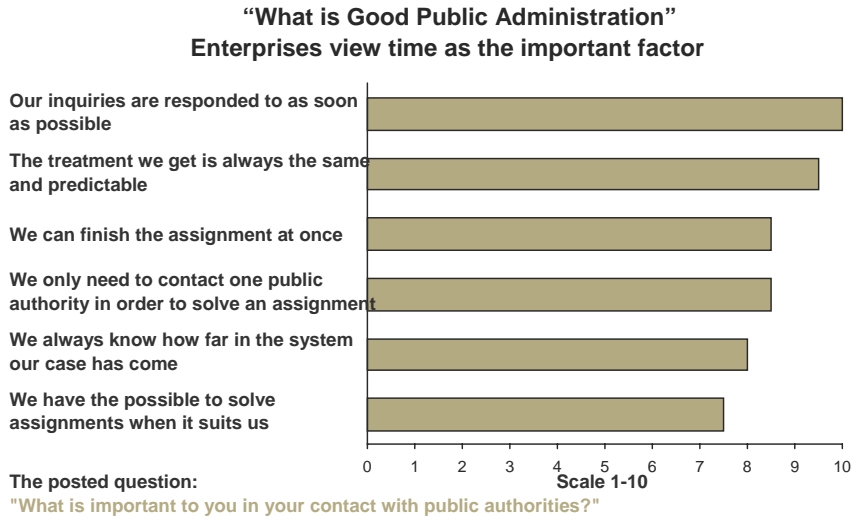
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[90] epractice Norway
[91] OECD Report Norway
[92] OECD Report Norway
[93] Epractice AEAT

Figure 30: Survey of Business Attitudes and Expectations on eGovernment, Denmark 2004

"What is Good Public Administration"
Enterprises view time as the important factor

Our inquiries are responded to as soon as possible	
The treatment we get is always the same and predictable	
We can finish the assignment at once	
We only need to contact one public authority in order to solve an assignment	
We always know how far in the system our case has come	
We have the possible to solve assignments when it suits us	

0 1 2 3 4 5 6 7 8 9 10
Scale 1-10

The posted question:
"What is important to you in your contact with public authorities?"

Enterprises Are Positive Towards eGovernment

Public authorities should to a greater extent provide services on the Internet	
Enterprises will to a greater extent in the future use public services and information on the Internet	
Enterprises can save time using electronic self-service when contacting public authorities	
Enterprises would like to receive emails instead of letters from the public authorities	

0% 20% 40% 60% 80% 100%

% of Respondents

Source: Virk.dk, The Enterprise Portal, A platform for eGovernment in Denmark, 2004

Developing a compelling service proposition requires two steps: The first, is to understand the needs of businesses; the second, is to re-think services and regulations and adapt these accordingly.

Singapore for example combines an innovative customer centric vision and entrepreneurial attitude backed by an aggressive approach to implementation. Over the past year, as its eGovernment Action Plan II (eGap II) came to its natural conclusion, Singapore launched new strategies and plans that should only strengthen the government's leadership in customer service. iGov2010 represents an evolutionary step in the country's eGovernment strategy by shifting the focus from integrating services to integrating government.

Some of the lessons learnt from the Norwegian tax Er@-program were that the approach of "thinking new and asking questions" was important in developing simple and easy-to-use services. These questions included: Can the service be done differently? What is needed to complete the offered service? Is it necessary to change the rules?" [94] This thinking was reflected in the fact that forms where not just provided online but pre-populated with information that businesses had provided elsewhere[95].

Sweden faced similar challenges when implementing Skatteverket. Not all companies could use the electronic tax returns as accountants had no legal rights to fill in returns for their clients. To overcome this, the government needed to make quite substantial alterations to the existing tax legislation which resulted in tax professionals now being able to report taxes on their clients' behalf[96].

Denmark is currently tackling fundamental structural reforms which demonstrate an impressive will to rethink existing structures and regulations. The number of municipal governments fell from 271 to 98, 14 counties were merged into 5 regions, and more than 100,000 employees are being transferred to a different government level in the process.

The key aim of the Structural Reform is to create a simpler and more efficient public sector with increased cohesion in public service. As part of this process, in conjunction with the consolidation of municipalities, many services have been devolved from a national level to the municipalities, which will become the main contact point for citizens and businesses.

Channel Strategy

The internet is a relatively new channel for service access and is not used solely or consistently by businesses. This channel can be more efficient but may not necessarily provide the service in the same fashion as face to face or telephone channels. In addition, there is not simply one business user but a variety of segments whose behaviours may vary significantly.

The graph below illustrates that channel preference and service levels vary quite substantially across countries[97]. While this is a survey based on citizen data, the wide range of preferences indicates differences in culture and infrastructure that apply to business as well. The Face-to-Face channel is clearly the channel with the highest usage across countries. In Denmark, France, Ireland and the UK the Web/e-mail channel has the highest usage in comparison.
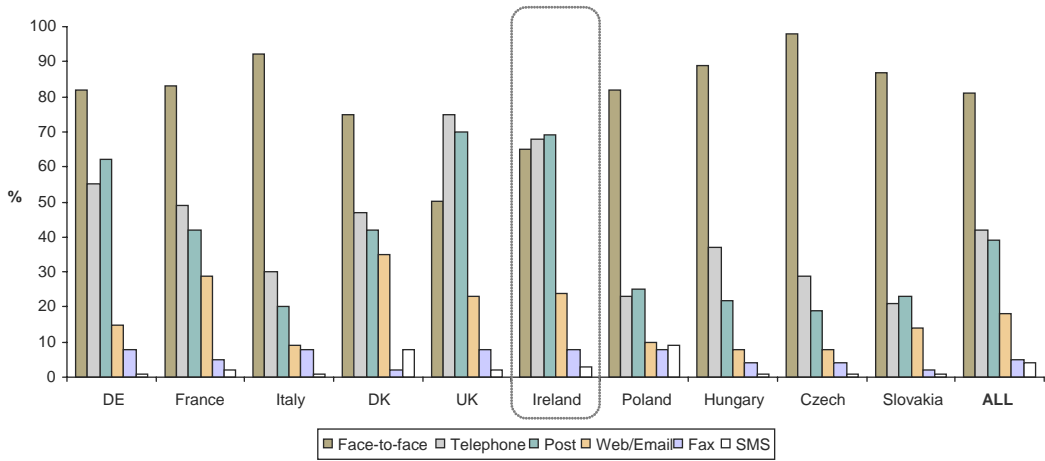
[94] http://www.epractice.eu/cases/1811
[95] http://www.epractice.eu/cases/1811
[96] http://beep.jepponet.dk/egovIndia/ShowCase.asp?CaseID=1476, Business portal: Swedish Tax Agency (www.skatteverket.se) (Sweden), 2007
[97] eUSER project: Evidence-Based Support for the Design and Delivery of User-Centred Online Public Services, European Commission IST 6th Framework Programme, 2006

Figure 31: Use of Media Channel When Contacting Government in %

A good channel strategy should have two aims: (1) to increase user satisfaction and (2) to reduce cost to government. In order to achieve the first aim, understanding user needs and preferences, and a realistic view of what can be achieved given current infrastructure, is essential. In addition, users will only migrate to new channels if they see benefits to themselves.

The cost - benefit of migrating users to online services is evident. As can be seen from the following figure the cost per visit is significantly less when using the online channel in comparison with face-to-face contacts.

Figure 32: Cost per Interaction by Channel in £/Interaction
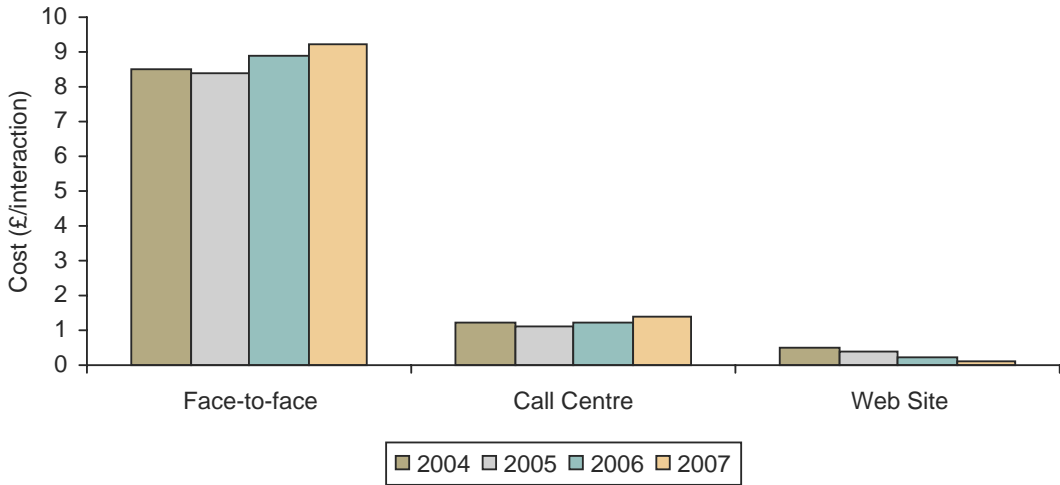
Source: Tameside Council Analysis (UK)

Migrating businesses to a new channel requires time and a clear understanding of their preferences and needs. Getting businesses to move to a new channel is however slightly simpler in comparison with citizens if efficiency gains and cost savings are recognised. Options of how to achieve user take up for online services will be discussed in Section 7.3 (Stakeholder Participation).

Service Prioritisation

In addition to developing a channel strategy that combines cost-effectiveness and user-centricity countries need to evaluate which services are suitable for web-enablement. This is not necessarily a simple task and it may require changes to the service portfolio.

The prioritisation of tax services for electronic enablement is in many cases based on the importance of these services for revenue generation. However, the high impact service framework discussed earlier offers a more comprehensive and long-term method of service prioritisation.

Policy and Programme Implications

Investing in research into user needs and preferences is key to developing a value proposition and a channel strategy, and thus to eventually maximising uptake and benefits. It is therefore vital that any initiative designing eGovernment policy starts by checking what user understanding exists, and from what evidence this understanding has been developed.

The following illustration indicates that a significant number of countries amongst the leaders in eGovernment have realised the need to move towards a more customer focussed eGovernment approach and have shifted their strategy accordingly. However, Customer Centricity is used increasingly broadly, and there is a risk of only paying lip service to the concept when in fact its application can have real, practical implications for eGovernment delivery.

Figure 33: Comparison of Customer Service Agendas across Countries

Among the Leaders

Maintaining Status Quo	Moving Toward Value Creation
• United States • France	• Canada • Finland • Singapore • Japan • Australia • Norway • Denmark
Falling Further Behind?	**Verging on Dramatic Change**
• The Netherlands • Italy • Sweden • Malaysia • Germany • Portugal • Belgium • South Africa • Ireland • Brazil	• United Kingdom • Spain

What was the country's rank in the customer service leadership in 2005

Not Among the Leaders

Standing still — **Progressing**

What's happening with the customer service strategy?

Source: Accenture, Leadership in Customer Service – Building the Trust, 2006

Summary of Key Questions on Proposition and Channel

Proposition and Channel Policy Implications

- Do you have a clear customer promise?
- Are customers constantly at the forefront of your thinking and do you understand their needs and preferences?
- Does your channel mix provide access to services for the entire business community?
- Do businesses trust Government?
- Are you encouraging businesses to use the channels that provide most benefit?
- Have you prioritised which services should be electronically enabled?

Proposition and Channel Programme Implications

- Is your channel mix the most cost effective?

7.3 Stakeholder Participation

This section investigates the different aspects of the "Stakeholder Participation" principle:

- How to Achieve User Uptake;
- Engaging Users in the Development of Services;
- Engaging Government Organisations.

There are many stakeholders in eGovernment – all Government departments potentially have an interest, whether their services are affected now or in the future. Other stakeholders include customers at an individual citizen and business level, as well as third party providers who providing enabling services through technology, or back-office support.

The take-up of e-enabled services is often below expectations. The full benefits of these services will only be achieved if uptake is increased, as only then will the additional online channel be cost effective to run. Governments need to therefore understand what are the drivers of take-up, and engage with stakeholders to increase usage of online services.

How to Achieve User Uptake

In their understanding of what drives take-up of eGovernment services, some Governments have used incentives to encourage businesses to change channels. incentives have worked in some circumstances but not in others. In Austria, for example, a simple discount on fees for using online services has not been as successful as offering businesses the benefits of reduced processing time and earlier payment of tax refunds. "Incentives should therefore be developed from within the system, i.e. through systems that convince through tangible benefits such us simplified processes or cost savings"[98]. In the UK on the other hand, the incentive of Government sharing the cost benefits generated through eGovernment with businesses has been well received[99]. This indicates that often businesses make channel choices on the basis of simple cost and benefit comparison.

Other examples have shown that more drastic means for encouraging take-up can be successful. In Spain for example, large enterprises are obliged to declare their taxes online, resulting in increased up-take of tax services by large enterprises via the online channel[100].
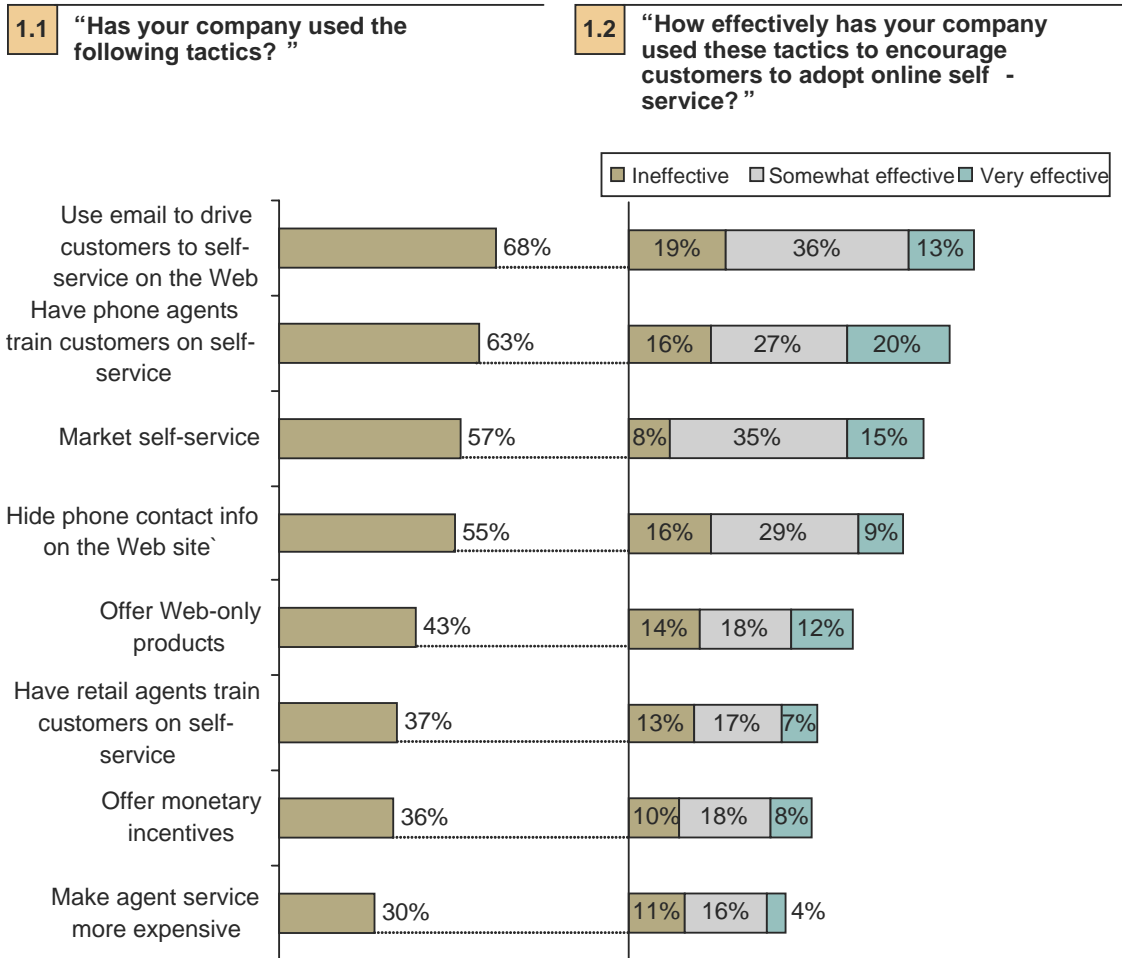
Lessons can also be learnt from the private sector, where companies have tried to steer customers away from traditional channels towards online self-service. From the diagram below it can be seen that using email to communicate with customers and having them trained by agents over the phone are among the most effective techniques for encouraging customers to shift to online channels.

[98] Focus Interview Austria, November 2007
[99] Focus Interview Denmark, November 2007
[100] http://beep.jepponet.dk/egovIndia/ShowAnalysisReport.asp?IDFocusAnalysis3=19

Figure 34: How Firms Steer Customers to Self-Service

1.1 "Has your company used the following tactics? "

1.2 "How effectively has your company used these tactics to encourage customers to adopt online self - service? "

■ Ineffective   □ Somewhat effective ■ Very effective

Tactic	Used	Ineffective	Somewhat effective	Very effective
Use email to drive customers to self-service on the Web	68%	19%	36%	13%
Have phone agents train customers on self-service	63%	16%	27%	20%
Market self-service	57%	8%	35%	15%
Hide phone contact info on the Web site`	55%	16%	29%	9%
Offer Web-only products	43%	14%	18%	12%
Have retail agents train customers on self-service	37%	13%	17%	7%
Offer monetary incentives	36%	10%	18%	8%
Make agent service more expensive	30%	11%	16%	4%

Source: Forrester Research Inc., How Firms Steer Customers to Self Service, 2003

Further initiatives to encourage online usage include targeted marketing campaigns which highlight the benefits of the new system to businesses. To increase take-up of online services, Agencia Tributaria in Spain made an important effort to make potential users aware of the availability of the services. This improved user awareness and the understanding of potential benefits to them[101].

On the whole, businesses generally seem willing to move to online channels if it makes business sense. This can be via cost incentives such as discounts for online usage, or through reduced administrative burden and processing time.

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[101] Epractice AEAT

## Engaging Users in the Development

Engaging users in service development is another important aspect. In Norway the inclusion of different user organisations in the development of the Altinn portal has had a great impact on users' acceptance and adoption of the Altinn portal. The User Forum, which represents the interests of businesses, has brought different views and opinions into the development process and even provided candidates for user testing[102].

Engaging Government Organisations

However, stakeholder participation does not only include users, but stakeholders within Government as well. Austria needed to find an approach to encourage regional and local authorities to introduce eGovernment services for businesses, as Central government did not have the power to impose eGovernment on them. Central Government therefore decided to take a co-ordination and advisory role, and encouraged competition between the local authorities by communicating progress externally[103].

The following figure indicates how Danish Government organisations rated incentives to increase innovation. Central funding and performance reviews were of greatest significance.

Figure 35: Incentives for Organisations to Increase Innovation
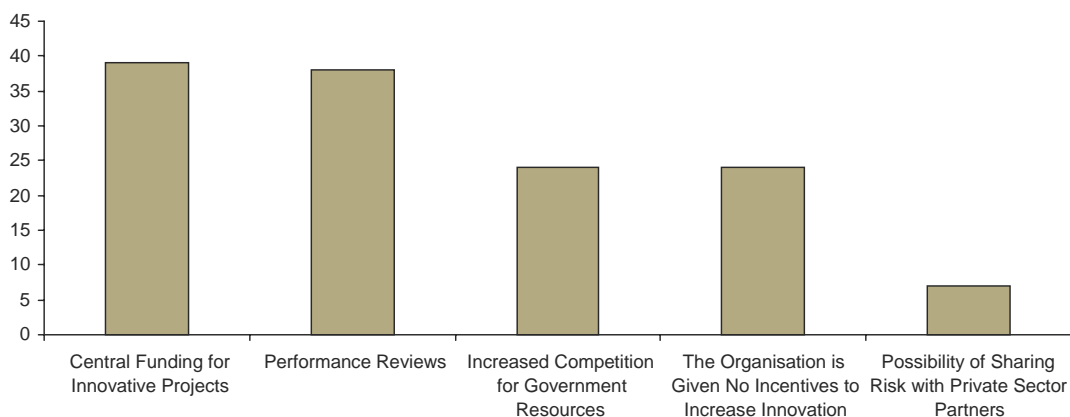
Source: OECD eGovernment Survey: Denmark, 2005

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[102] Focus Interview Norway, November 2007
[103] Focus Interview Austria, November 2007

> **Summary of Key Questions on Stakeholder Participation**
>
> Stakeholder Participation Policy Implications
>
> - Are you involving businesses in the design of new services?
>
> - Do you have incentives in place that encourage the use of eGovernment services?
>
> - Do you have incentives in place that encourage the uptake of eGovernment services?
>
> - Do you know who your stakeholders are?
>
> - Do you understand what implications your tier structure has on your eGovernment policy?
>
> Stakeholder Participation Programme Implications
>
> - Do you have a communication plan that targets all users and other stakeholders?

7.4   Finance & Contracting

This section investigates the different aspects of the Finance and Contracting Principle:

- Funding Strategy;

- Procurement Strategy.

Delivery of more complex eGovernment reform is likely to involve several public (and private) sector stakeholders, and thus new funding methods may well emerge as options or be required. As such the funding and procurement strategy must be clear, and outcomes should not be constrained by the procurement process. A well-suited approach to contract management and suppliers is essential.

Funding Strategy

Funding can be split into capital and service related investments. However some capital investments such as building new IT infrastructure with connectivity across Government, using common standards and interoperability across platforms and organisations can carry a huge cost. Yet IT infrastructure is the crucial backbone of eGovernment, and generally countries should aim to invest at a national level.

Investment is relatively easy to agree where there is a centralised structure but less so in countries with a federal structure. For example, in Germany, regional states have their own parliaments which have complete control over key parts of their budget. As such, large cross-agency technology programmes have suffered from implementation delays.

Aside from funding large infrastructure programmes, there is often a need to fund smaller, local projects. "Seed funding" has been a successful approach, where the incentive of central government matching funding from local government creates a sense of shared ownership and accountability.

Another aspect of the funding debate is to ensure budgets are managed to cost. The UK's CSR (Comprehensive Spending Review) 2007 is a financial settlement that calls for real-term budget costs in some Departments. This in turn drives the need for efficiency savings, which can only be achieved through a transformation of both processes and IT systems.

Service related investment should be done on an ROI basis, to ensure proper incentive setting for the service reliability, comprehensiveness and quality. However, Governments need to decide an appropriate market model for IT investment, which depends on the maturity of the supplier market. For example, Governments need to find the balance between directly employing resources versus developing the supplier market in remote and rural areas. A Government approach to outsourcing needs to come from the overall eGovernment strategy, in order to get the best value from the market, and minimise service development costs.

In the UK, for example, outsourcing is used substantially more than in other countries (e.g. HMRC outsourced running of Tax systems to Aspire; DWP are currently proposing to outsource parts of the pension system; eBorders, the government's new immigration system, will be partly delivered through outsourcing). This trend is now starting to take hold in Continental Europe as well.

Governments also need to develop a policy and approach to offshore provision of services. This can raise big political issues in areas such as data security, employment and capability development. At the same time, it offers substantial cost savings and gives Government the option to invest more in strategic industries, education or training.

In general, in mature supplier markets, the best approach is to use a competitive procurement model.

Procurement strategy

European Governments should recognise that there is a comparatively open, EU-driven, supplier market. If, for example, government policy chooses to support the development of businesses in Ireland (e.g. by strengthening domestic companies' performance through the introduction of a competitive market model), it is important to recognise that the product and service offering can easily be supplied internationally.

In the UK, there have been an increasing number of framework agreements. One of their benefits is that they reduce the lead time for ideas and systems specification, which is especially important for large deals. Solutions are less likely to be implemented on old designs, and framework contracts also foster more flexible, innovative service provision.

Finally, learning from past mistakes, there is an increasing trend towards outcome specification instead of input specification for IT programmes. For example, "this is what the service needs to be able to do in terms of user numbers, interface required, functionality" instead of "we need a database with a capacity of x and y terminals".

Summary of Key Questions on Finance and Contracting

Finance and Contracting Policy Implications

- Are you making use of the commercial market to deliver services?

- Are you making use of non-Irish resources (outsourcing)?

Finance and Contracting Programme Implications

- Are you allocating your budgets on the basis of return on investment or benefits to Government and businesses?

- Do you prioritise initiatives on the basis of business cases and ROI?

- Do you centrally encourage the development of eGovernment services through funding key enablers such as IT infrastructure?

7.5 Programme Management

In this section the importance of Programme Management and how it has contributed to success in various eGovernment initiatives is discussed.

Effective eGovernment programme and project management can only be successful if a strategic roadmap for change is in place. As eGovernment projects are often cross-departmental in nature it is important that change takes into account the needs of the different stakeholders.

At a programme and project level it is important that elements such as transformation architecture, transformation design, the approach and the resources are defined to ensure a coordinated and targeted implementation.

Roadmap for Change

A strategic roadmap to eGovernment was already introduced in the UK in the year 2000 and has since then formed a fundamental element of the UK's Government modernisation programme. On the one hand, it identifies a common transformation framework and direction across the public sector and on the other creates a structure for collaboration between the many stakeholders[104].

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[104] UK Cabinet Office, eGovernment – a strategic framework for public services in the Information Age, 2000

The 'Transformation Government – Enabled by Technology' strategy was introduced in 2005 and sets out the Government's vision for a long-term transformation of public services. The underlying objective of this strategy is to provide more efficient and effective services with citizens and businesses in mind. It aims to transform public services as citizens and businesses receive them rather than with established structures and processes in mind. Technology supported by professionalism throughout the delivery chain is seen as a key enabler to improve the corporate services of Government.

At a programme level the OGC (Office of Government Commerce) Gateway Process examines programmes and projects at key decision points. It aims to mitigate risk and provide assurance that a programme can progress successfully to the next stage. This process is considered best practice within the UK, in particular in central civil Government, the health sector, local Government and Defence. The process is mandatory in central civil government procurement, for IT-enabled and construction programmes and projects[105].

Her Majesty's Revenue and Customer (HMRC) in the UK has worked successfully with the Governance Framework Model it established. It ensures that IT enables programmes, projects and services to deliver the required business benefits within the planned scope, costs and timescales. Every IT initiative at HMRC is subject to independent risk assessments. In the case of high risks to delivery, HMRC ensures that the identified benefits are still realised by undertaking checks at specific points (control gates) in the development lifecycle[106].

In the case of a project failing at one of the gates HMRC senior management can take corrective action to ensure the benefits are still realised or even stop initiatives, if appropriate.

Programme Architecture and Design

The transformation architecture defines the overall principles, targets and requirements of the transformation programme. It aims to provide the underlying logic and interdependencies by identifying the principles that feed into the transformation design. It also incorporates the logic of the different transformation phases, the definition of required resources, the most critical success factors and the overall desired impact.

The transformation design is based on the architecture and entails a more detailed and practical levels such as work plans. It combines phases, interventions and events and provides the solution to the planned eGovernment implementation.

[105] http://www.ogc.gov.uk/what_is_ogc_gateway_review.asp
[106] "Control and Governance: Her Majesty's Revenues & Customs (HMRC) Case Study", Cabinet Office – Chief Information Officer Council, 2007

Resources & Capabilities

Most countries have realised that they need to increase their ICT spend to meet future demands and developments. Nevertheless, there are significant differences in the extent to which countries are planning to invest in ICT. In 2006, The United States, the United Kingdom and Denmark had the highest IT spend per capita, followed by Norway, the Netherlands and Sweden. The United Kingdom is planning the highest increase in ICT spend by 2011 which will make it the leader by far. Ireland spent €105 per capita in 2006 which puts the country into the third quartile when ranked by total spend.

When comparing these figures to the identified leaders in eGovernment there is a correlation between the countries that spend most and those that are most successful, with the exception of Austria that has managed to lead with lower investments. Ireland needs to significantly increase its investments in ICT in order to be able to compete with current and future leaders. For Ireland to reach Denmark's level of investment in the next three years the country needs to spend approximately €138 to €155 per capita in addition to its current plans.

Figure 36: Current and Forecast IT Spend per Capita by Country excluding Defence and Intelligence
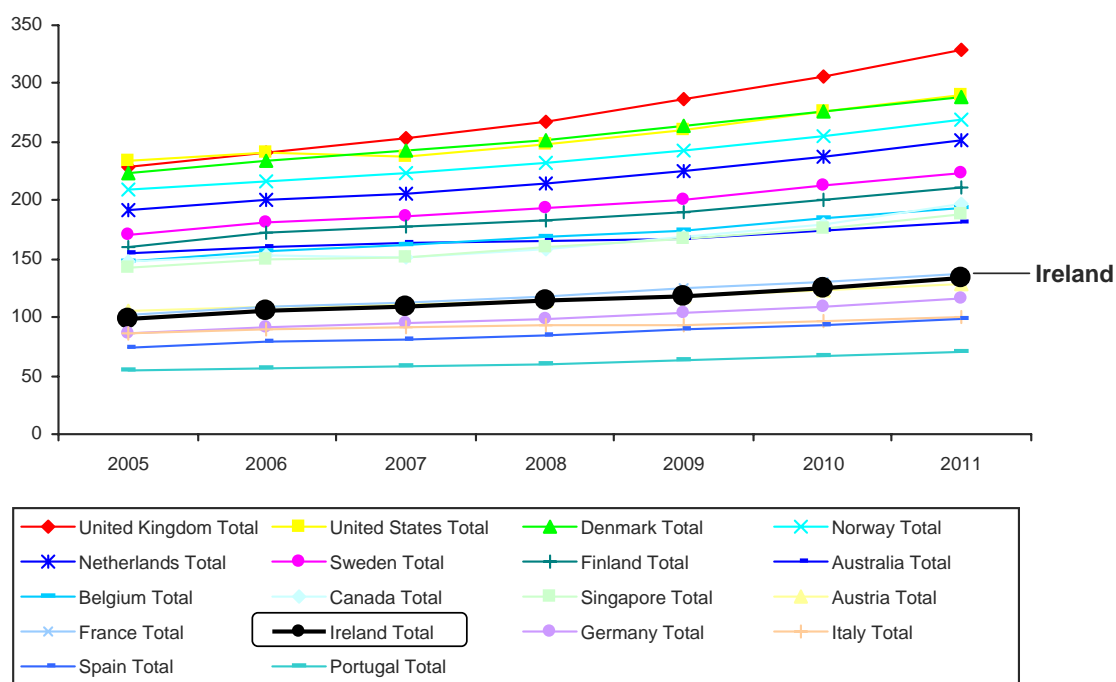
Source: "5 Years forecast for Business IT spending by vertical industries for each IT sector by region and country", Gartner, 2007

Her Majesty's Revenue and Customs (HMRC) has strongly benefited from the introduction of the 'Ecosystem' approach to procurement which acts as a sourcing channel committed to leveraging a global network of partner suppliers to deploy best in class solutions. This partnership gives HMRC access to new ideas and technologies.

Aspire is HMRC's contract with Capgemini and a number of other 'ecosystem' suppliers for the provision of IT services. Over 240 partners work together in the Aspire Ecosystem@HMRC. Currently Capgemini has 3,500 people employed into a number of portfolios of more than 200 projects at any one time. Since the commencement of this contract the number of critical risk projects has been reduced from 38% to 9%. In addition, the quality of project delivery has improved against a backdrop of increasing complexity[107].

This has resulted from a number of improvements to the Project Delivery life-cycle, including:

- The use of a common iterative Delivery Life Cycle on projects
- Formal reviews and authorisation points to avoid the development of unused solutions
- The working within tolerances in early stages of the Life Cycle and rigorous change controls
- The alignment of business and IT

Measuring Programme and Project Success

Measuring project results is important because it indicates whether the set targets have been achieved and the suggested benefits are realised. MAREVA (described above) is one approach that can be used to evaluate projects. It places return on investment (ROI) in a broader context which not only allows targets and benefits to be measured but also for projects to be compared.

Summary of Key Questions on Programme Management

Programme Management Policy Implications

- Have you developed strategic roadmaps that align programmes across organisations with the overall eGovernment strategy?
- Have national Gateway processes been established to ensure that programmes progress successfully? Are they being used?

Programme Management Programme Implications

- Do you have a programme Governance framework?

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[107] "Aspire – the journey continues 2004 – 2007", Capgemini, 2007

7.6   Culture and Process

This section explores the main aspects of culture and process change, namely:

- Process re-definition and 'Fit' to current and planned IT applications;
- Cross-Agency Collaboration and Interoperability .

Culture

One of the perennial challenges of public sector reform, be it e-enabled or not, is culture change. Reform implies substantive and long-lasting change which involves changes to working practices and processes and more importantly, changes to behaviours, habits and mindset.

All too often, new technology applications are simply thrust onto current processes which can then lead to yet another news headline on a failed Government IT implementation. One has to fit technology to the needs of the re-defined processes rather than the other way around.

Especially in the public sector - with its ingrained culture of change-averseness and entrenched working practices – it is important to engage staff from the outset and to explain the changes and why they are critical.

Process Re-definition and Fit to IT Applications

Process simplification and the resulting efficiency savings (from both a government and business perspective) can be achieved through technological enablement but also (and probably more importantly) through regulation simplification. In Denmark, the Netherlands, the UK and Germany, this falls under a drive for "administrative burden reduction". In the UK, the public sector has discovered 'lean thinking' and has started to apply its principles to process simplification.

There are several options of fitting existing processes and organisational structures to IT applications, including:

- Digitisation of largely unchanged processes and structures;
- Deep reorganisation;
- Centralisation of back-office and de-centralisation of front-office functions.

It is not always necessary to completely re-define processes to fit them to new IT systems. Norway for example has from the very start applied ICT to fit its back office functions, such as financials, public records, payroll and personnel systems. This has brought changes and benefits to back office management which are no longer considered as eGovernment related. This "mainstreaming" of government processes to ICT underlines the fact that government transformation is a constant process[108].

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[108] OECD eGovernment Studies: Norway Assessment, 2005

Spain's Tax Agency has strongly focused on the embedding of new routines and functions from a technological and organisation perspective into the existing system. The projects have been cost efficient and have not interfered with the day-to-day activities carried out at the Tax Agency.

Other examples are single portals in Spain and Sweden, neither of which has required redesign from scratch. In Spain, the majority of processes and working routines between the different agencies involved were already in place before the portal was created. Consequently the major challenges were related to the integration of front-end and back-end IT systems, integration with banks, security issues and the legal framework. In Sweden[109], most organisational relationships and data integration, including those with third parties, were also largely in place before the web-based services were introduced.

At the other end of the spectrum sits fundamental reform of structures and processes. Digital technologies have been shown to be both an excellent catalyst for and an important means of fundamental reform wherever a service is functioning poorly, inherently in crisis or otherwise in need of reform. This normally involves re-thinking the complete service organisation, its work process structures and its interoperability with back/front-office and outside organisations.

A popular strategy in eGovernment, driven by the need to increase efficiency whilst providing a more effective, higher quality service, is to centralise some or all back-offices and/or their functions (e.g. data storage). Such concentration can provide a strong rationalisation effect which focuses expertise, reduces errors and time delays, and can deliver scale economies unimaginable under a decentralised model with many units undertaking largely similar functions.

Concomitant to this is decentralisation of the front office. For example, an online service delivered from a centralised back office or data source can be complemented by a series of local front offices providing face-to-face support and advice, as well as the necessary local knowledge.

VAT services in Greece[110] demonstrate data source centralisation and processing taking place at national level, coupled with a face-to-face user interaction role at local tax offices. The centralised databases of the National Office for VAT provide the means for the development of local autonomous applications. These ensure operational independence of local tax offices. This system architecture has successfully brought about the automation of internal procedures at national level and significant improvements in the operation of local tax offices.

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[109] Ibid
[110] Ibid

Another example is the provision of environmental permits in Finland[111], which integrates all permit data with data about the state of the environment in one central database. The relevant data is obtained from businesses, municipalities, the Environmental Permit Authority, private operators running a data clearing house, and thirteen Regional Environment Centres which also provide a de-centralised front office service.

Cross-Agency Collaboration and Interoperability

When it comes to process and organisation, the terms cross-agency collaboration and interoperability can be used interchangeably. Both are commonly used to describe the ability of different organisations to effectively communicate in order to improve service provision. This implies that their processes, information assets and software applications are able to communicate and share data. Interoperability however also applies to technological (communication of processes, information assets and technologies).

The European Commission has developed a European Interoperability Framework in order to faster deploy pan-European Public Services. Successful examples of pan-European public services can already be seen such as the Schengen Information System, the Customs Union and the Eucaris system for the exchange of vehicle information.

Figure 37: Overview of European Interoperability Framework
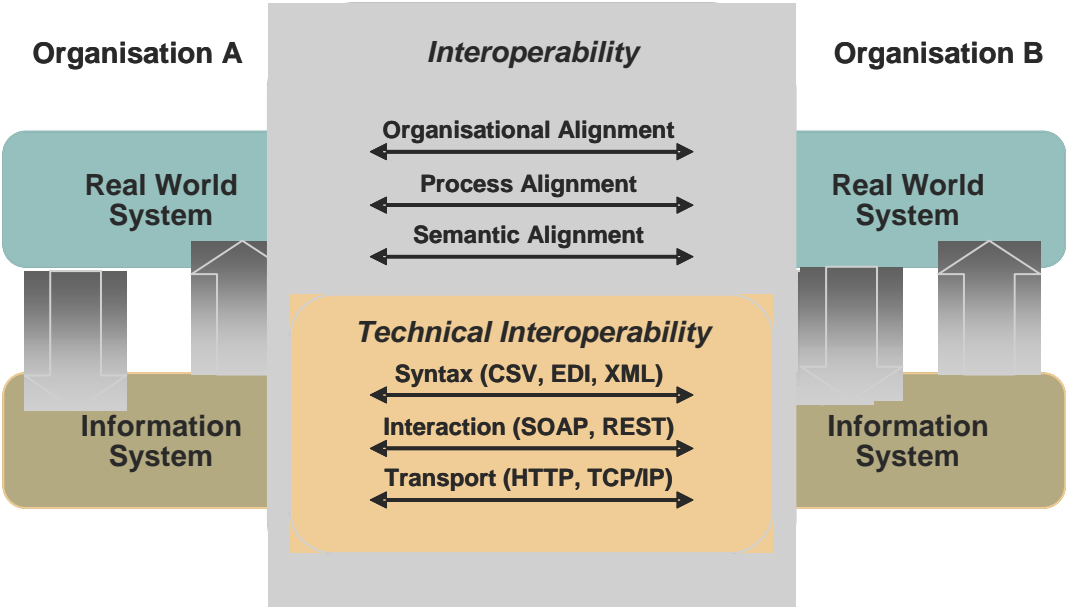
Source: Gartner, Preparation for Update European Interoperability Framework 2.0, 2007

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[111] OECD eGovernment Studies: Norway Assessment, 2005

The framework aims to coordinate national legislation and standardisation efforts. Member States are expected to take the necessary legal, organisational, process, semantic and technical measures to enable interoperability.

Depending on the country setting, typical political and technological barriers to interoperability include:

- Highly autonomous various agencies;

- Lack of incentives / governance to implement interoperability;

- Lack of skills and budgets at agency level;

- Legacy applications (e.g. traditional stovepipe architecture; business processes that are hard coded in the legacy application);

- High cost of a big bang approach.

This section covers the organisational aspect of interoperability; the technological aspect will be dealt with under "Technology Approach".

Federal administrative structure is often used as an excuse of why cross-agency collaboration is hard to achieve. However, as the example of Austria demonstrates, this can be counteracted by incentivising the lower tiers of Government. The benchmarking of progress between regions to create a sense of competition was successful in this respect.

In Norway, several Government Departments and agencies have managed to join a common team, developing common services to businesses. So far ten different Government administrations have connected to the Altinn platform, with several more planning to join. In general, eGovernment has had a positive impact on information and knowledge sharing across government through breaking up internal communications barriers and providing new opportunities to promote access and diffusion of knowledge. However, few organisations are collaborating beyond the level of information sharing towards establishing a common strategy or frameworks for joint delivery of services[112].

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[112] OECD eGovernment Studies: Norway Assessment, 2005

7.7   Technology Approach

This section investigates the different aspects of the "Technology Approach" principle:

- Infrastructure strategy;
- Trust, Security & Identity;
- Standards & Data Sharing;
- Database requirements.

The challenges of interoperability and sustainability occur within all of these categories.

Providing integrated services to businesses can only be achieved if the technology and the organisations are aligned to deliver them. Technology is a vital enabler of eGovernment, however it must be put into context. Joined-up services will work better with aligned technology. Government agencies need to develop a combined infrastructure strategy, central standards and complementary governance, so that data can be shared and systems able to communicate across departments or even countries (Interoperability).

Infrastructure strategy

How a Government sets its infrastructure strategy for eGovernment services should focus on creating and delivering common services across Government in the most efficient way.

Canada has developed a strategy for infrastructure provision across federal government. This development has been led by the CIO of Canada. It involves the provision of shared and to a large extent standardised ICT across Governmental bodies.

This notion of shared ICT and ICT-enabled service provisioning has also been a central plank of the UK eGovernment strategy since 2005. Uptake has been modest to date. The Government Gateway has provided basic connectivity and authentication and has been established since early 2000s.

Directgov is the UK Government's website which provides public service information and services to citizens. A separate business oriented site called Businesslink.gov.uk similarly provides small and medium-sized businesses with access to e-services and transactions through one primary site. Future government information will be delivered through either Directgov or Business Link, making information access substantially easier[113].

Estonia's eGovernment efforts are characterized by the X-Road project. The goal of this project is to build an infrastructure that allows effortless access to the data in state registries without compromising its security and with minimal impact on existing systems.

Trust, Security & Identity

Clear, transparent strategies and supporting governance structures are critical success factors for successful eGovernment services. It is expected that over the longer term, National and International Identity Schemes will become the preferred identification method for eGovernment services, as security, trust and identity have been found to be the most difficult, yet essential requirements to build and deliver e-enabled services.

In the UK, eIdentification and eAuthentication is performed by a central platform called Government Gateway. The Government Gateway is a central registration and authentication engine which enables secure authenticated eGovernment transactions to take place over the Internet[114].

In The Netherlands there are legal constraints on disclosure and dissemination of information which one does not have the right to or ownership of. It is clear to the Dutch Government that these issues can only be solved via cooperation and participation with the private sector, in particular around certification, auditing and logging. Harmonizing legislation on a European level is also necessary[115].

The French eGovernment strategy as outlined in the ADELE program, looks at implementing many initiatives on a National level as well as local level. eGovernment services are separated across different networks to provide access for citizens, business and other public administrations, while using one system for user identification. While each customer segment has its own user administrator, they are linked for interoperability. However, legislation is an important issue which is missing, yet is needed to move forward in this area.

Austria has introduced a standardised format for the exchange of electronic files and documents to replace paper-base filing and archiving across all public authorities[116].

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[113] Gartner, Preparation for Update European Interoperability Framework 2.0, 2007
[114] Gartner, Preparation for Update European Interoperability Framework 2.0, 2007
[115] Ibid
[116] Ibid

In Denmark[117], software-based digital signatures now provide a secure means of communication for citizens, companies and the public administration. From early 2007 approximately 875,000 electronic signatures were issued in Denmark compared to around 500,000 at the end of 2005 and 65,000 in 2003. This increase can most likely be attributed to the fact that from 1st February 2005 Danish Authorities were obliged to receive e-mails signed with digital signatures. As a result, 95 percent of Danish public authorities have now implemented digital signatures and have established appropriate means for receiving secure e-mail.

Digital signatures in Denmark are now used for three main functions:
▪ Securing electronic messages (e.g. e-mails);
▪ User identification for services that require it;
▪ Online submission of electronic forms.

There are also two types of signature:
▪ For citizens as private individuals;
▪ For authorities and businesses as organisational entities, which are further split as follows:
  ▫ Business certificates for public authorities and businesses;
  ▫ Employee certificates;
  ▫ Server certificates to gain access to online servers.

The Danish IT and Telecom Agency (ITST) officially administers digital signatures in Denmark, with implementation outsourced to TDC (Tele Denmark)[118]. The Danish Digital Taskforce and the IT Policy centre have been key partners for stakeholder coordination, with the taskforce playing a role in ensuring that digital signatures are taken into account when new services are developed.

In Denmark, digital signatures are governed by a number of different pieces of legislation. Together the legislation sets out specific rules governing certification centres / certificate authorities to ensure the quality and security of digital signatures. It is estimated that 95 percent of all accountants' offices have at least one OCES digital signature, and 80 percent of lawyers officers have a least one OCES digital signature.

As such, Denmark has been found to be a good example of a country which has a comprehensive approach to handling trust, security and identity issues, supported by appropriate legislation that enhances delivery of eGovernment services.

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[117] Transfer-East eGovernment to Business – Report on 10 G2B Good Practices selected for the Technology Transfer Actions, 2007
[118] Ibid.

Standards & Data Sharing

Interoperability and standards have been an increasing focus within the EU, partly as a result of the EU-driven European Interoperability Framework (EIF 1.0), first published in 2004. This framework resulted in the adoption of adopting interoperability frameworks and guidelines by many member states, and much progress has been made in this area across EU member countries[119].

The importance of interoperability as a key enabler was highlighted during the MODINIS Study on Interoperability published in April 2007, and highlighted that the lack of mutually recognisable and interoperable ID cards results in citizens not being able to access information and integrated public services. EU member states addressed this by developing an approach to electronic identity management, and the progress against this is highlighted in the table below[120].

Figure 38: Country Progress in Electronic Identity Management

Conceptual/Design	Development/Roll-out	Update/Review	Consolidation
Cyprus	Germany	The Netherlands	Austria
Czech Republic	Latvia	France	Belgium
Greece	Lithuania	Ireland	Denmark
Hungary	Portugal	Malta	Estonia
Luxembourg	United Kingdom	Slovenia	Finland
Poland			Italy
Slovakia			Spain
			Sweden

Source: MODINIS, 2006

These phases are as follows:

- *Conceptual/Design*: Member States in this initial phase have not yet deployed any large scale IDM solution, but are still evaluating the options available.

- *Development/Roll-out*: The second phase consists of the actual development and deployment of the solution. Member States in this phase have (virtually) completed the design work, but have not yet established a significant user base, nor are popular and publicly accessible services yet available.

- *Update/Review*: In the third phase, existing IDM solutions are being reviewed and modifications/ updates being considered. This is typically the case with Member States that have deployed basic solutions (e.g. username/password portals) several years ago, and which are now looking to refine such solutions, e.g. through the integration of PKI.

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[119] European eGovernment 2005-2007: Taking stock of good practice and progress towards implementation of the i2010 eGovernment Action Plan, DG Information Society and Media, September 2007
[120] European eGovernment 2005-2007: Taking stock of good practice and progress towards implementation of the i2010 eGovernment Action Plan, DG Information Society and Media, September 2007

- *Consolidation:* In this final phase, only minor modifications to the existing IDM infrastructure are considered, but the infrastructure in itself is considered to be fairly mature, and presents a longer term solution.

In the UK a government-wide electronic communication tool has been implemented called the Knowledge Network. This network allows departments to share knowledge with each other, and provide an online collaborative working environment across Government. This network is available within individual government departments and between them, as well as at a pan-Governmental level for example between 10 Downing Street (the Prime Minister's office) and the Cabinet Office. This network provides regionalised information as well as local facts and figures to users[121].

In Italy[122] all public administration bodies across the country can communicate via a broadband network called RUPA (Rete Unitaria della pubblica Amministrazione). This will be replaced with a new Public Connectivity System called SPC (Sistema Pubblico di Connettivita) with increased quality and security standards in the coming years.

Denmark promotes the use of open competitive standards through a Government directive. These open standards are intended to enable cross platform and cross vendor interoperability. Three main concerns have been identified in the certification of standards: conformance (public value), influence (private/public partnership) and performance (private value)[123].

In Norway the critical success factors for Tax eFiling were the introduction of a Common TIN (Unique Identification Number) and the quality of the back-office systems. Through Altinn the government has been able to establish standards and collaboration across departments. The portal is seen as the government locomotive for eServices to Norwegian businesses and the general public[124]. At an all of government level in Norway, standards for interoperability and data management continue to be developed through inter-agency working groups. Standardisation efforts in the area of eGovernment have fluctuated in terms of focus and intensity, reflecting the change in the government's priorities and needs. However, standardisation has lately emerged as a key priority following the recognition that it goes beyond a technical exercise and holds strategic importance as the means for achieving collaboration and co-ordination of public registers and Government-wide interoperability. While early standardisation efforts in Norway had the important role of opening the way to digitalisation of information and eGovernment development, more recent standardisation initiatives are focused on improving data exchange between public registers[125].

[121] Transfer-East eGovernment to Business – Report on 10 G2B Good Practices selected for the Technology Transfer Actions, 2007
[122] Transfer-East eGovernment to Business, Report on 10 G2B Good Practices selected for the Technological Transfer Actions, 2007
[123] Gartner, Preparation for Update European Interoperability Framework 2.0, 2007
[124] Epractice Norway
[125] Epractice Norway

The Altinn project offers open standards such as XML and SOAP in a similar fashion. The system integrates the agencies IT systems through the use of web services. The system is therefore flexible and can be adopted to changes in requirements and technology.

Businesses will only declare their taxes electronically if they trust the service and electronic security. Altinn offers several levels of security depending on the service. Digital signatures are used for sensitive services in order to guarantee a secure connection, data exchange and payments.

In Austria format mismatches have been avoided by defining three standard transaction types: a dialogue process, the transmission of XML-files and a peer-to-peer connection. This enables process integration, connecting businesses' accounting systems with public servers[126].

Interoperability issues also need to be overcome from a technological and legal perspective. As discussed above, the definition of technological standards across departments is important, but so too is the assurance that these can be read and understood by stakeholders outside Government. In addition, standard definitions for data needed to be established to ensure that measures such as "revenue" are defined and measured consistently. From a legal perspective, Spain faced the challenge that users of eServices needed to sign an authorisation for the public administration to use their data when it was requested and submitted. This authorisation needed to be transmitted between national, regional and local agencies and had to include an identified purpose of its future use. In some instances this has only been feasible through changes in legislation[127].

Database requirements

The Estonian administrations host many diverse registries, most of them for very small organizations without security knowledge and with very small IT budgets but high security requirements. These registries contain mostly personal data that is in some cases used to make high value decisions and in some cases needed in real-time.

X-Road is currently used by the Estonia's government, private companies and citizens. X-Road is the preferred way of connecting Government agencies, and is also used by private companies to exchange data with Government and other private sector organizations. X-Road is a good example of well-working infrastructure: all public sector registers offer services using X-road, all central Government and most local Government authorities use everyday services over X-Road[128].

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[126] Epractice Austria
[127] Transfer-East eGovernment to Business – Report on 10 G2B Good Pracitces selected for the Technology Transfer Actions, 2007
[128] Gartner, Preparation for Update European Interoperability Framework 2.0, 2007

Summary of Key Questions on Technology Policy

Technology Policy Implications

- How are your technology standards defined?

- What is your approach to security and data protection?

- Will your data be shared with other systems? Are you ensuring interoperability?

- Are there authentication processes in place to enable secure transactions?

Technology Programme Implications

- Do you have an infrastructure strategy?

- Do you have sight of the ongoing and planned portfolio of eGovernment initiatives?

- Do you know what other government organisations are doing in the eGovernment space?

- Are you keeping an eye on current and future market trends?

7.8   Capability Development

This section investigates the different aspects of the "Capability Development" principle:

- Skills Gap Analysis;

- Coaching & training delivery;

- Research.

eGovernment is not just about new systems, but also about the human resources involved in delivering and maintaining services. As such, having and developing the right skills and capabilities among those involved is vital for sustainable eGovernment services over the long term. People are at the core of the delivery framework – not only do they provide the front and back office operations, but they are also key to understanding the needs of customers and systems, and translating these into services and systems that are both functional and necessary. For eGovernment to be sustainable over the long term, Governments should look at ways of developing the capabilities 'in-house' in order to avoid becoming dependent on external contractors and third parties.

In order to develop the capabilities required for successful eGovernment, skills and resource gaps must be analysed based on the requirements of the services and systems being provided. These gaps should be addressed by building capacity through training, coaching and mentoring, in order to perpetuate innovation and adapt business and operational processes. Some of the capability gaps will not be filled from what is known today, therefore continued and ongoing research needs to be done.

Skills gap analysis

Governments often underestimate the impact that the capabilities of their workforce have on large eGovernment projects, and in day-to-day work when dealing with citizens and businesses.

In the information age public servants need to be able to handle a broad range of issues, interact with customers, and deliver the required technical services. For example, public sector employees who may have previously dealt with customers for simple front office enquiries, are now having to respond to more complex and multifaceted issues, as simple interactions are increasingly substituted with automated self-service delivery via the Web.

Among other challenges that Governments face is the shortage of skilled labour. As a result, Governments need to undergo a workforce transformation, which can include changing the behaviour of employees so that they become focused on the needs of citizens and businesses and not just their own processes. One focus interview[129] highlighted the fact that Government agencies which do not have the staff to deliver eGovernment capabilities, outsource these services to third parties. Despite bringing in external resources with the required capabilities, managing the relationships between Government and the outsourcing partner is sometimes an issue in itself.

Governments are now paying the price when it comes to large technology implementations – these often falter due to "people" issues rather than technology failures. Poorly trained staff, resistance to change, and in some instances sabotage (deliberate or otherwise) of new eGovernment initiatives can have large adverse impacts on the success of an implementation.

The simple belief that electronic services will promote customer self-service, requiring fewer Government resources which in turn will solve the capability shortage, could be mistaken. This is because citizens and businesses expect public servants to be experts in their field and provide advice when needed. Public servants will continue to be required to provide a service to businesses in areas not suitable for e-enablement. As such, staff will need to be able to handle more complex, multi agency, person to person service delivery[130].

Coaching & training delivery

The capabilities which are needed for successful eGovernment are analytical, (in order to diagnose business issues), relationship and contract management skills, creative and entrepreneurial skills in order to deliver customised solutions to business issues, and ICT skills to develop and use the systems.

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[129] Focus Interview USA, November 2007
[130] Accenture, Leadership in Customer Service: Delivering on the Promise, 2007

Those Governments that have recognised the issue of capability shortage have either improved the quality of their workforce through extensive training and recruitment, or have concentrated on developing smaller numbers of highly skilled staff.

Canada has developed a workforce transformation strategy called PS Renewal, which aims to change the nature of work in the public service and create a new work environment by aligning capabilities to development initiatives. One of these was the establishment of the Canada School of Public Service (CSPS) in 2004. CSPS consolidates the training function of several Government organisations into a central, national-level public service training provider. Role specific training is provided, as well as basic courses that prepare public servants for their role in delivering services, and encourages them to be stewards of public trust[131].

The Government of Denmark aims to increase their public sector workforce by 110,000 people to approximately 970,000[132] by 2025 as part of a Quality Reform strategy. This includes a two-fold approach, which looks at ways of encouraging students to take up careers in the public sector, as well as encouraging early retirement[133]. The result will be a workforce that is potentially more likely to adapt to the new requirements of the public sector as they will be more IT literate and less used to entrenched ways of working.

In contrast, the Government of Finland is aiming to downsize its workforce over the next six years, largely through non-replacement of retirees. By doing so, the aim is to respond to the challenges of an aging population. By reducing headcount, the Finnish Government has the opportunity to increase wages and compete with private enterprises in attracting talent. Additionally, Government is working with universities and schools to develop workforce capabilities by specialisation through the education system[134]. The lack of skills and experience in delivering eGovernment services poses a large challenge. For instance, public servants' lack of ICT skills and their reluctance to use ICT are said to have inhibited Finland's progress[135].

The Swedish National Tax Agency (SNTA) has developed its own philosophy to help change the mindset of employees: "treat citizens as owners, rather than customers". This approach helps the SNTA change how it engages in dialogue with its employees, by helping them to view citizens as key stakeholders. The agency also used citizen surveys to get a view on how the public perceived the attitudes of the tax agencies' staff[136]. This allowed them to better understand their employees and the way they work. Conclusions can then be drawn as to what needs to be done to change mindsets.

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[131] Accenture, Leadership in Customer Service: Delivering on the Promise, 2007
[132] Statistics Denmark, Employment indicators at full-time equivalent employees for (ATP statistics) for Public and personal services in Q1 2007, 2007
[133] Accenture, Leadership in Customer Service: Delivering on the Promise, 2007
[134] Accenture, Leadership in Customer Service: Delivering on the Promise, 2007
[135] Focus Interview Finland, November 2007
[136] Accenture, Leadership in Customer Service: Delivering on the Promise, 2007

In Norway, agencies that lack the capability to introduce online services are supported by specialists who advise and support them in their efforts to go online. In this regard, the Altinn project functions as both a consulting service provider and a central portal for online services. The Altinn team function as consultants for the various public authorities that aim to develop electronic services, and the Altinn team help these public authorities to develop their own capabilities.

Research

Although training and development will ensure that the capability gaps to deliver eGovernment services are narrowed, training and development alone do not necessarily ensure sustainability. An environment of continuous innovation and change therefore needs to be created, so that the workforce is encouraged and motivated to look at best practice in delivery, and mirror these in its own practices and behaviour. Continued and ongoing research therefore needs to be done.

Summary of Key Questions on Capability Development

Capability Development Policy Implications

- Does your organisation have the capabilities to implement and offer eGovernment services?
- Which strategy do you have in place to fill the capability gap?

Capability Development Programme Implications

- How do you attract and retain talent?

7.9 Performance Management

This section investigates the different aspects of the "Performance Management" principle:

- Use of Benefits Cases;
- Targets;
- Measurement.

Many aspects of change can be brought about by incentives, targets and benefits. The case for eGovernment is a little different. Yet benefits to all parties should be measurable and quantifiable to make them transparent to all parties. As such a business case for eGovernment is necessary. It should incorporate specific targets, but more importantly a process to identify and track benefits so that any change can be proven and sustained. Benefits can come in several forms, and should be treated as such, however a rigorous performance management process is needed to ensure that the planned benefits are realised.

Use of Benefits Cases

Despite the obvious need for a performance management and benefits tracking process, during the focus interviews and international literature review it was found that there were few established performance management processes to evaluate eGovernment services. The benefits management process at the UK's CJIT (Criminal Justice IT – see section above, is a notable exception). In several instances cost-benefit analyses are undertaken at the projects initiation stage, but these are not revisited to measure whether forecasts have been achieved. Thus individuals or organisations are not held to account for their original estimates and it is therefore not surprising that benefits are at times overestimated and costs underestimated or indeed understated to avoid challenge[137]. Costs can also be understated when Governments do not fully quantify or understand the economies of scale gained, or the costs of maintaining separate channels.

It has also been found that in many instances where cost-benefit analyses are developed, they only consider the benefits to Government rather than the benefits to businesses as well. Norway has created business cases that include benefits to society as a whole[138]. Yet measuring and tracking these benefits has not always been easy and many countries such as Denmark therefore end up only measuring costs[139].

Measures such as online availability and uptake of eGovernment services are available in most countries but more detailed measurements of expected financial, economic, social and other costs and benefits are often not available at project or programme level. Aggregate level measures such as online availability do not necessarily show how successful eGovernment services are, or the extent to which they are being used. It has been found that across countries, not enough attention

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[137] Focus Interview Brown University, November 2007
[138] Focus Interview Norway, November 2007
[139] Focus Interview Denmark, November 2007

is being paid to project business cases and cost-benefit analyses. As such a lack of specific measures at a service / project / programme level can make it difficult to measure success and identify the initiatives that have truly added value, and also leads to reduced take-up. In these circumstances assigning funds to the most appropriate projects and areas becomes difficult.

Austria has attempted to use customer surveys to measure the benefits to businesses and citizens, yet the degree to which any insights from these surveys could be used to inform decision making is questionable.

Not only are the start-up costs of eGovernment difficult to quantify, but so too are the ongoing costs. This report finds that the costs of maintaining online services often does not take into account the effects of changes in legislation, such as frequently changing tax legislation[140]. Having an architecture that can incorporate this flexibility is therefore of great significance.

The interviews for this study indicated that eGovernment initiatives are often not proposed, monitored or evaluated on the basis of a sound or consistent business case. This has been seen in countries such as Finland, Portugal and Norway, which have not always quantified benefits in a consistent manner[141]. Denmark has recognised this challenge, and attempted to address it in their current eGovernment strategy. Tools have been developed by the Digital Task Force and the Ministry of Science, Technology and Innovation to measure and track the costs and benefits of eGovernment services. However, these are not mandatory to use[142].

Further, ICT related departments in countries such as Denmark have found it difficult to have a funding strategy that incorporates an annual budget cycle due to frequently changing requirements and technology demands[143]. This has been overcome through more regular budget discussions between ICT related functions and Finance departments. Where this has occurred in Sweden, the approach was to give more eGovernment responsibility to the Finance Ministry, which has the ability to control budgets and release funding. In Norway ICT related functions provide the Finance Ministry with a priority list of technologies, that is updated continuously throughout the year[144].

It has been found that countries often fail to take a long term view of eGovernment projects and their benefits. On average, the benefits of eGovernment initiatives are often achieved on a medium to long term basis of five years or more[145] and need to be planned and evaluated over such timescales.

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[140] Focus interview, November 2007
[141] OECD, OECD Peer Review of eGovernment in Denmark, 2005
[142] OECD, OECD Peer Review of eGovernment in Denmark, 2005
[143] Focus Interview Denmark, November 2007
[144] Focus Interview Norway, November 2007
[145] Focus Interview Insead / France, November 2007

The figure below indicates which measurements become significant with increasing eGovernment maturity. An objective judgement on measures of efficiency and effectiveness can for instance only be made once the impact is observable. Measures become increasingly complex with rising maturity, and the lower end of eGovernment initiatives may be treated as infrastructural costs rather than value generators.

Figure 39: Changing eGovernment Issues Over Time
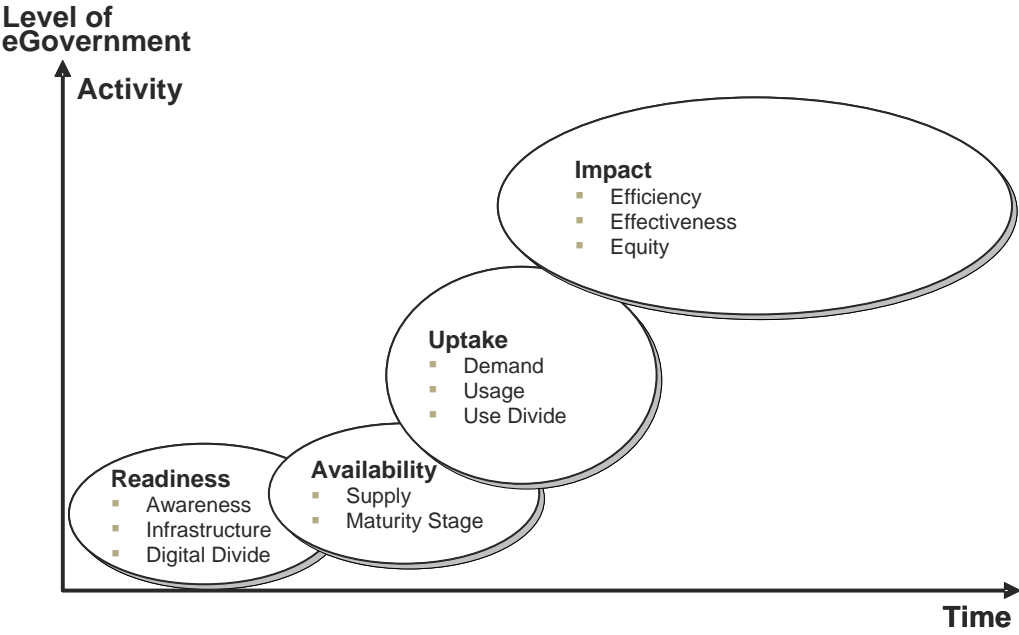
Source: Understanding and Measuring eGovernment: International Benchmarking Studies, Richard Heeks, Development Informatics Group, 2006

Targets

Having a set of targets against which performance is measured is an obvious and important factor. Targets should be realistic while at the same time enabling eGovernment services to reach a defined vision. The lack of a target itself or of target ownership can be a serious barrier to eGovernment take-up.

Denmark has set clear eGovernment targets for all public sector organisations, and supported them with a set of measures to assess what they are achieving. Yet performance against these measures is yet to be seen, and it is unclear how achievement of outcomes and performance will be able to inform future eGovernment development.

Measurement

Experts have identified that post-project evaluation and measurement is an issue[146]. This does not stem from a lack of measurement frameworks or measurement types, but the lack of political will. As long as leaders give no clear direction or priority to measuring impacts and take accountability for investment decisions, the full impacts, benefits and costs of eGovernment services will not be understood.

Nevertheless, there has been a shift in focus from understanding the efficiency of eGovernment (monetary and non-monetary savings) to trying to understand the factors that determine these efficiency gains (such as back-office reorganisation), and the markets to a more rounded, inclusive view of benefits.

As discussed earlier, a number of eGovernment measurement frameworks have been developed by international institutions, individual countries, universities and consultancies.

Until 2005, eGovernment measurement was mainly focused on supply-side indicators, eReadiness, and user satisfaction issues. Only a relatively small number of frameworks were aimed at measuring impact, although more and more are now shifting their focus to this.

The Danish 'eGovernment signpost'[147] methodology sets out key performance indicators in addition to taking impact into consideration. It also attempts to map take-up of eGovernment services, user satisfaction and service quality.

The French MAREVA (section 4.2.1) and the German WiBe measurement frameworks map quantitative monetary and qualitative efficiency gains to Government and to businesses.

Since 2005 EU Member States have been adopting strategic and operational approaches to measuring efficiency and effectiveness. The eGEP framework (as explained earlier) has been developed as a measurement model based on existing impact and measurement approaches and as a tool for performance measurement on a programme and organisational level[148]. However the take-up of eGEP among EU countries has been disappointing, and the eGEP project is being revisited this year to develop a second, simpler and more practical model[149].

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[146] Focus Interview, November 2007
[147] http://wwww.epractice.eu/document/3319
[148] European eGovernment 2005-2007, Taking stock of good practice and progress towards implementation of the i2010 eGovernment Action Plan
[149] Focus Interview, November 2007

Individual EU Member States have also started to move beyond more traditional approaches characterised by business-case methodologies and / or benchmarking approaches. Such methodologies are being implemented at national and, in some cases, at local levels.

Greece is currently developing and implementing a measurement framework based on eGEP. In the United Kingdom, the CARE project had the objective to provide a framework and supporting software for agencies and local governments to use when evaluating eGovernment projects. The successes of both of these projects are yet to be identified. These examples do however show that countries are increasingly trying to measure the effect eGovernment has on their efficiency and effectiveness.

In the UK, the Criminal Justice IT system has developed a simple framework for evaluating and prioritising key projects. In order to assign priority levels, programmes and projects are evaluated against attractiveness and achievability, with only those that achieve above a pre-defined minimum combined rating are taken forward. Benefits for each project are then classified according to efficiency or effectiveness, and accountability is assigned separately for each benefit, to create a focus on delivering quantified and approved benefits. This is then followed by a performance management phase with 6-monthly checkpoints to ensure that projects perform against plan, and on remain track to deliver agreed benefits.

Summary of Key Questions on Performance Management

Performance Management Policy Implications

- Do you understand the full costs and benefits of eGovernment implementations?
- Do you have a measurement framework that measures costs and benefits?
- Are measurable targets set and is performance monitored?

Performance Management Programme Implications

- Are business cases developed at programme level?
- Are costs and benefits measures?
- How do you react to performance information received?

Chapter 8 Conclusion

eGovernment is no longer viewed as just on-line 'web' service delivery. It is the comprehensive ICT-enablement of public services across multiple channels, addressing operations from the customer touch point through to back-office fulfilment – including across agencies. This more inclusive definition of eGovernment has typically been embraced by leading nations. Indeed some nations have dropped the 'e'.

This report has analysed country and service performance across the nine principles of the eGovernment Framework. The evidence suggests that it is the combination of all these principles that underpins a successful eGovernment programme. As such, the framework provides a sound basis for this research and a structure on which to draw conclusions.

Each country is at a different point in their eGovernment development, and thus may be focusing on specific elements of their programme. Leading practices provide an excellent information source to inform a country's strategy, however it cannot be copied. Each country must establish a programme that fits their setting and circumstances.

Ireland made some early advances in eGovernment and so has a sound foundation on which to build. Learning from the experiences of others, Ireland must develop its own programme.

In doing so however, there are some areas that are of particular importance to lead with.

Strong political leadership has shown itself to be one of the key levers of successful eGovernment delivery. Strong leadership is about creating an eGovernment vision, setting outcome priorities and targets and making visible the monitoring of these, aligning priorities across the key public service leaders, ensuring that a strategy and long-term plan is in place, and sustaining political backing to eGovernment implementations.

Political leadership should provide more than just strategic direction and alignment between Government and business stakeholders. It should drive professional leadership in the public sector through a mixture of accountability and incentive setting. Political leadership should also overcome obstacles created by tier structures within Government, so that eGovernment delivery satisfies particularly cross-Governmental objectives.

Governance is a vital topic to address. The instigation of a Government CIO role and supporting governance mechanisms has developed, albeit in different ways, across the leading nations. This provides an important vehicle to translate and coordinate political ambitions. There are several different models in place, however all successful countries have addressed the topic in a fashion that is best for them. Governance mechanisms are noted to have flexed and been revisited with time.

Amongst those countries studied, Portugal and Norway have most recently leveraged strong political backing for eGovernment services to drive alignment and collaboration between Government departments and help transform the eGovernment landscape in their respective countries. This has been one of the factors attributed to Portugal jumping ahead of other EU countries in their delivery of eGovernment initiatives. They are joined by some new European Member States that have leapt forward in eGovernment rankings.

Canada, Singapore, Denmark and Austria are excellent examples of countries that have sustained this leadership over time.

The priority drivers of an eGovernment programme should be clearly evident. Most countries currently focus on one or both of customer and efficiency. All European countries typically have efficiency built into their programmes. The more advanced countries recognise that using the customer as a lever for transformation is frequently synergistic with delivering efficiency and have thus built customer-centricity into their programmes as a key component.

Approaches to customer-centricity reach well beyond a simple focus on internal processes, cost savings and simple electronic enablement. They require in many ways a shift from an administration-centric to a customer-centric Government model.

Much can be learned from countries such as Canada, which is a recognised world leader in customer-centric eGovernment services. Canada has dedicated significant leadership and management focus to understanding and designing services around the needs of the customer, whilst minimising intervention and leveraging modern technologies. By involving users and building up trust in Government, Canada has delivered a portfolio of services that are relevant, efficient and deliver levels of quality that are measured on a regular basis through customer feedback. Businesses in Canada are surveyed every other year (citizens in intermediate years) in a thorough and comprehensive manner. Feedback shows that satisfaction levels have increased year on year, indeed to a point that Government is perceived to be ahead of private sector service providers.

So, given that customer centricity can work alongside efficiency, the challenge is firstly to prioritise the services to be developed, and then understand how ICT can best enable the delivery of these.

The services that countries have elected to focus on are typically those high impact services, including the likes of tax, public procurement, company law, and business statistical reporting requirements. Several countries have emphasised business innovation and start-up by targeting improvements in services targeted at small and micro businesses. Given the business setting in Ireland there is a need to attract and retain foreign businesses by ensuring Ireland is an easy place to do business in. As crucial is the need to support mid and small Irish businesses by ensuring interaction with Government is simple and effective.

An important factor to consider in service delivery design is the very significant cost differential between channels – typically viewed as a factor of 10 for face-to-face; 1 for telephone; 0.1 for web.

Leading countries have developed a clear understanding of customer groups and their needs. This has informed their channel strategies and their plans to achieve take-up of on-line services. Although reliable benchmark statistics exist on availability of eGovernment services, what is less evident are reliable statistics on the take-up and use of these services.

Pro-active stakeholder participation is in any case vital to achieve take-up. Service take-up can be encouraged by creating incentives for businesses and other Government departments. Take-up is however dependent on a very wide variety of factors that touch on culture (Singapore); socio-geographical setting (Nordic); communications and incentives (Canada); technical accessibility (broadband / PC – US), and so on.

Improved overall service provision through collaboration across public service agencies is an emerging and important mechanism by which both efficiency and customer focus can be achieved. This moves the ICT-enablement of service delivery from a front of office discussion right through to include back-office fulfilment. The structure (tiers) of Government within a country can have a

marked impact on how such collaboration takes place. This also requires the collaboration between multiple and typically fragmented local agencies.

Austria provides an example for countries to learn from. Reflecting the Government tier-structure in Austria, Central Government was unable to impose eGovernment services on regional and local authorities, so instead facilitated service implementation by having a co-ordination and advisory role, and encouraged competition between the local authorities by communicating progress externally. At a business user-level, incentives for service take-up were created by reducing fees for online services and offering reduced processing times.

> **Summary of Key Learnings on Stakeholder Participation**
>
> Key learnings from other countries in relation to stakeholder participation include:
>
> - Identifying and understanding who the main stakeholders are;
> - Involving businesses in the design of new services;
> - Putting incentives in place to encourage uptake of eGovernment services;
> - Reflecting the implications of tier structure in eGovernment policy.

Technology is a vital enabler of eGovernment, however it must be considered in context. Providing integrated services to businesses can only be achieved if the technology and the organisations are aligned to deliver them. Joined-up services work better with aligned technologies. Government agencies need to develop a combined infrastructure strategy, central standards and complementary governance, so that data can be shared and systems enabled (interoperability) to communicate across departments and at times even countries.

eGovernment infrastructure strategy should focus on creating and delivering common services across Government in the most efficient and secure way, based on common standards and a sound approach to addressing interoperability.

Denmark is a good example of a country which has a holistic approach to handling trust, security and identity issues, supported by appropriate legislation and standards that enhance delivery of eGovernment services. Denmark has pursued open competitive standards to enable cross platform and cross vendor interoperability, in addition to providing a secure means for businesses and Government to communicate. Public authorities have implemented digital signatures to improve trust and security, which are taken into account when new services are developed, and supported by different legislation governing their use.

Summary of Key Learnings on Building Trust

Key learnings from leading countries in relation to building trust and use include:

- Technology standards should be clearly defined;

- The approach to security and data protection should reflect overall eGovernment strategy;

- Standards and interoperability need to consider how data will be shared with other systems and across departments, companies and countries;

- Authentication processes should be in place to enable secure transactions;

- A process for technology 'market-watch' should be established.

This international review has identified that there are a number of eGovernment performance measurement approaches in place and that European Commission projects continue to advance thinking in this domain.

There are however few published benchmarks for particular initiatives that provide reliable cost and return data on which to plan. What is revealing is the correlation between spend per capita on ICT and country performance. This clearly shows a gap between the leading countries and Ireland.

In conclusion a number of common themes can be identified as important to the current and future success of eGovernment initiatives in other countries and of relevance to Ireland as it considers next steps to reinvigorate the eGovernment programme including:

- *Customer Leadership* – to truly deliver effective and efficient eGovernment services requires an 'outside-in' view of service delivery as opposed to 'inside-out'. This fundamental change requires a change of mindset and culture, a customer engagement strategy, and collaborative working between tiers of government and across Government agencies;

- *Simplicity* – requiring streamlining of the processes that make up the service portfolio, to make things simple for businesses, and simple for Government and public services delivery;

- *Efficiency* – reducing costs associated with providing public sector services, and reducing the cost for business using those services;

- *Focus* – clear prioritisation of what is most important, which in itself requires clarity of intended vision and strategy;

- *Information Governance* – developing customer trust in electronically provided public services will require demonstrably competent processes and clear accountabilities for governing information, particularly in a world of cross-agency working;

- *Variance Control* – including measuring the quality and consistency of services delivery, which is broader than just standardisation, although standardisation is of itself likely to be part of the strategy (it is however significantly set by Industry and/or above-country bodies). Variance control also addresses the multiple approaches that are too often taken to address common challenges.

Appendix A Selected Countries: Overview Statistics

Country	eGov Strategy[150]	Year	Broadband penetration[151] % of population	Political[152] Government contribution to e-readiness (1-10 scale)	Economy[153] GDP per Capita (PPS) (2005)	Education[154] Youth education attainment level (%) (2005)	Demographics[155] Population by age class (% of population) (2005)
Austria	ABC Guide to eGovernment in Austria	2004	21%	9.05	28,700	85.9	0-24 yrs = 28.4% 25-64 yrs = 55.6% 65+ yrs = 16%
Belgium	Cooperation agreement, signed by the federal, regional and community authorities	2006	47%	8.35	27,600	80.3	0-24 yrs = 29.4% 25-64 yrs = 53.5% 65+ yrs = 17.1% (2004 data)
Denmark	The Danish eGovernment Strategy 2004-06	2004	60%	9.85	29,100	76.0	0-24 yrs = 29.8% 25-64 yrs = 55.1% 65+ yrs = 15%
Finland	National Knowledge Society Strategy 2007-2015	2007	49%	9.00	26,200	84.8	0-24 yrs = 29.9% 25-64 yrs = 54.2% 65+ yrs = 15.9%
Ireland	New Connections - A Strategy to realise the	2002	11%	7.5	32,100	86.1	0-24 yrs = 36.2% 25-64 yrs =

[150] "Analyzing and Comparing European eGovernment Strategies", Konstantinos Parisopoulos, Efthimios Tambouris, Konstantinos Tarabanis, The International Conference on eGovernment, Montreal, September 2007
[151] "E-communications household survey", European Commission, April 2007
[152] "The 2007 e-readiness rankings – Raising the bar", Economist Intelligence Unit, 2007
[153] "Europe in figures – Eurostat yearbook 2006-07", ed. M. Feith, M. Fritz, A. Johansson Augier, U. Wieland, European Commission, 2007
[154] "Europe in figures – Eurostat yearbook 2006-07", ed. M. Feith, M. Fritz, A. Johansson Augier, U. Wieland, European Commission, 2007
[155] "Europe in figures – Eurostat yearbook 2006-07", ed. M. Feith, M. Fritz, A. Johansson Augier, U. Wieland, European Commission, 2007

Country	eGov Strategy[150]	Year	Broadband penetration[151] % of population	Political[152] Government contribution to e-readiness (1-10 scale)	Economy[153] GDP per Capita (PPS) (2005)	Education[154] Youth education attainment level (%) (2005)	Demographics[155] Population by age class (% of population) (2005)
	potential of the Information Society						52.6% 65+ yrs = 11.2%
Netherlands	Modernising Government programme	2004	65%	9.35	28,900	74.6	0-24 yrs = 30.5% 25-64 yrs = 55.5% 65+ yrs = 14%
Norway	eNorway Strategy	2000	NO DATA	9.35	38,600	96.3	0-24 yrs = 31.9% 25-64 yrs = 53.4% 65+ yrs = 14.7%
Portugal	eGovernment Action Plan	2003	17%	6.75	16,700	48.4	0-24 yrs = 28.2% 25-64 yrs = 54.7% 65+ yrs = 17%
Sweden	A public administration in the service of Democracy	2000	43%	9.7	26,900	87.8	0-24 yrs = 29.8% 25-64 yrs = 53% 65+ yrs = 17.3%
UK	Transformational Government - Enabled by Technology	2005	41%	8.65	27,300	77.1	0-24 yrs = 31.1% 25-64 yrs = 52.9% 65+ yrs = 15.9% (2004 data)

Forfás