OECD e-Government Studies

Rethinking e-Government Services

USER-CENTRED APPROACHES



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Foreword

The financial and economic crisis beginning in 2008 has forced governments to focus strongly on how to maximise savings and, at the same time, ensure improved public services. OECD countries have already, over the last 10-15 years, invested substantially in the development of e-government services as a means to improve public services. They have done so assuming that by equipping public sector administrations with information and communication technology (ICT) and rendering business processes and procedures more efficient and effective, they could generate substantial benefits to both users and governments. However, experiences across peer-reviewed OECD countries show that this is not always the case. E-Government projects do not always deliver the full promised benefits, and users do not automatically use available e-government services. The dilemma between the promises of e-government, lagging user take-up and lack of satisfaction with e-government services is the focus of this report.

This report aims to:

- *provide deeper insight into the complex and diverse reasons behind the lagging user take-up of e-government services;*
- *describe and analyse the different obstacles to user take-up;*
- *describe and analyse country approaches on how to increase user take-up;*
- *describe and analyse different international approaches and practices with regard to monitoring and evaluating user take-up;*
- *identify from country practices a number of cross-cutting trends for better user take-up.*

The analytical framework for this report is based on the following OECD publications: The e-Government Imperative *(2003),* e-Government for Better Government *(2005), "Benefits Realisation Management" (GOV/PGC/EGOV(2006)11/REV1, 29 March 2007), and "E-Government as a Tool for Transformation" (GOV/PGC(2007)6, 28 March 2007). E-Government country studies of Belgium (2008), Denmark (2006), Finland (2003), Hungary (2007), Ireland (public service review, 2008), Mexico (2005), the Netherlands (2007), Norway (2004), Portugal (administrative simplification and e-government, 2008), and Turkey (2007) have been used as background for the analyses together with additional* ad hoc *research.*

The report was written under the guidance of the OECD Network of Senior E-Government Officials, as part of the work programme of the Public Governance and Territorial Development Directorate. The work was discussed at the meetings of the

OECD Network of Senior E-Government Officials on 12 October 2007 and 7 March 2008, and the report was finally discussed and approved at the meeting of the OECD Public Governance Committee on 22-24 October 2008.

Under the leadership of Christian Vergez, this report was managed and written by Yih-Jeou Wang with contributions and help from Gwendolyn Carpenter, Marco Daglio, and Jeremy Millard (external consultant). It was edited by Julie Harris and Carrie Tyler.

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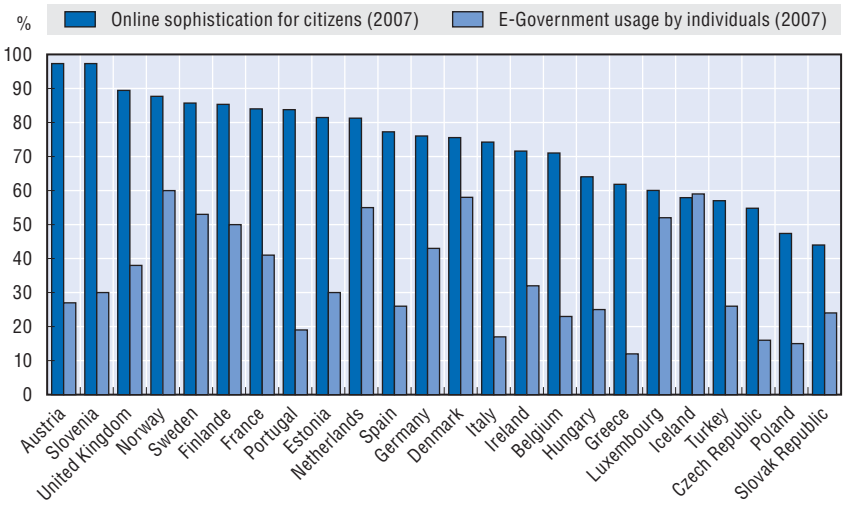
Executive Summary

Over the last 10-15 years of public sector development and due to the financial and economic crisis beginning in 2008, governments have been looking at how best to use information and communication technology (ICT) to improve the performance of public sector administrations. The use of ICT in public administrations and its impact on public governance (also known as e-government) has enabled governments to automate a broad range of internal functions and processes. It has helped them improve business processes within public organisations and across organisational boundaries, making it possible for them to deliver high-quality services to users – whether citizens, businesses or government employees. Governments saw the use of ICT as the "silver bullet" that could finally resolve the lack of coherency in public service delivery, and at the same time free up resources through efficiency and effectiveness gains. However, governments later saw low adoption and use of e-government services (also known as low user take-up of e-government services) which are still far from satisfactory today.

The differences in uptake of e-government services across countries do not seem entirely linked to the quality and quantity of the supply of e-government services: the explanation is broader and more diversified. The European Union has tracked e-government services take-up since 2001. Figures 0.1 and 0.2 show European Commission data on online sophistication of selected e-government services for citizens and businesses for 2007 and Eurostat data on the use of e-government services. The gap between the supply and use of e-government services is in general a significant trend in the figures, suggesting that there is limited correlation between the provisions of sophisticated e-government services on the one hand and the take-up of e-government services on the other. Even though both sets of data (the supply of a selected set of core e-government services and the uptake of e-government services in general) are not directly comparable, the trend illustrates the need to look beyond the indicators at hand to find explanations to this dilemma.

For businesses (Figure 0.2), the situation is different. There is a significantly higher take-up trend due to the fact that several countries' have prioritised efficient and effective interaction between businesses and public authorities. In many countries, it is often easier to require the private sector to follow specific procedures and use specific tools, including the use of ICT through

Figure 0.1. **Comparison between use and online sophistication of public services for citizens, 2007**



Source: OECD 2008 compilation, based on Eurostat, October 2007 data on e-government usage by individuals; European Commission (2007), *The User Challenge Benchmarking The Supply Of Online Public Services. 7th Measurement, September 2007*, prepared by Capgemini; data on online sophistication for citizens. The data for Turkey on e-government usage is from the Turkish Statistical Institute's ICT usage survey on households and individuals 2007 (see *www.turkstat.gov.tr/PreHaberBultenleri.do?id=605&tb_id=15*, accessed 28 August 2008). The data set selection for this figure contains only OECD countries and accession countries to the OECD (Estonia and Slovenia) covered by European Union data collections and surveys.

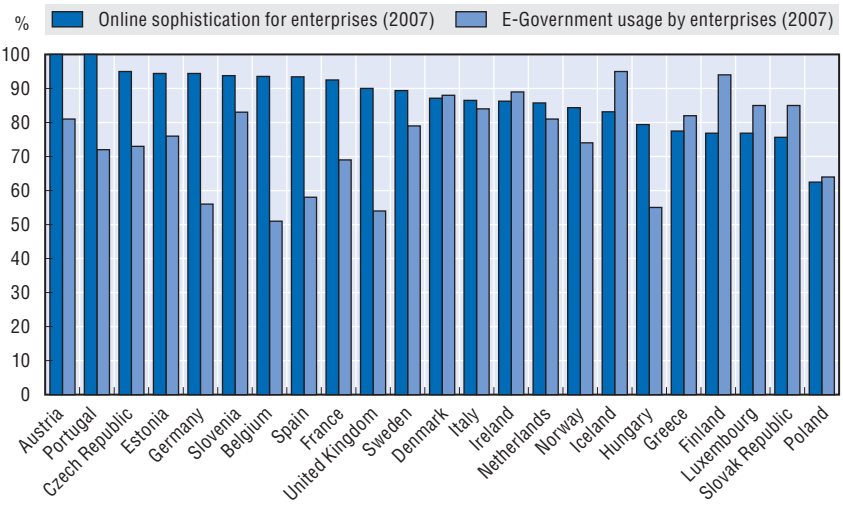
requirements in the regulation of businesses than it is for citizens where other considerations such as universality and equal treatment are more dominant. Some countries (*e.g.* Denmark, Hungary and Spain) have made selected reporting mandatory to public authorities using electronic means.

Both figures show that there is a high level of provision and sophistication of e-government services for citizens and businesses across European Union member states. But is the trend the same in non-European Union OECD countries?

OECD e-government country studies and studies of national user take-up in other OECD countries such as Australia, Canada, Korea, New Zealand, and the United States confirm that improving user take-up as an integrated part of improving public sector service delivery – and specifically user take-up among citizens – is a high political priority.

For many years the focus on technology has overshadowed the need for organisational, structural, and cultural changes in the public sector. Key challenges (*e.g.* legal and cultural barriers for collaboration and co-operation within and across levels of government – the prerequisites for building attractive, integrated, user-focused e-government services) have hence been

Figure 0.2. **Comparisons between use and online sophistication of public services for businesses, 2007**



Source: OECD 2008 compilation, based on Eurostat, October 2007 data on e-government usage by enterprises; European Commission (2007), *The User Challenge Benchmarking The Supply Of Online Public Services. 7th Measurement, September 2007*, prepared by Capgemini; data on online sophistication for businesses. The data set selection for this figure contains only OECD countries and accession countries to the OECD (Estonia and Slovenia) covered by European Union data collections and surveys.

left unaddressed. In the process of rendering internal government functions and processes more efficient and effective, users were often forgotten.

With increasing pressure from society on governments to become more efficient and effective, and at the same time pay more attention to user needs, demands, and satisfaction, governments have been forced to rethink their approach to service development and delivery. The message from the OECD e-leaders (the OECD high-level responsible for national e-government development) at their meeting on 6-7 March 2008 in The Hague, Netherlands, was clear: the focus in public service delivery should be on *user needs*, *demands*, and *satisfaction* – not on the tools and service delivery channels governments have been focusing on since the mid-1990s. Integrating a citizen-centric approach to public service development and delivery raises a number of questions for governments:

- How can governments enable and support a more participatory and inclusive approach to public service development and delivery in order to ensure that user needs and demands are met by government services? Or, perhaps governments should use ICT to develop a service-delivery framework and supporting tools that empower users to create their own personalised services to meet their individual needs?

- How can the public sector itself transform into a coherent whole, meeting users on their terms and not under the terms set by governments' administrative organisations, traditions and cultures?
- How can the current division of responsibilities and the organisational structures within the public sector be rethought to accommodate a whole-of-public-sector approach to service development and delivery?

This is a fundamental shift in the perception of and approach towards public service development and delivery: a new paradigm is emerging.

A paradigm shift towards citizen centricity

E-Government development has figured on the political agendas of OECD countries since the 1990s, where attention was given to how governments' use ICT and how it could lead to greater efficiency and effectiveness. The shift of focus and approach towards citizen centricity in the mid-2000s is significant. Today, governments recognise that e-government is a key tool to support and enhance public sector functions and processes in general. In particular, it has shown its strength as a tool to improve and enhance innovation in the public sector as a lever for new approaches to service development and delivery. Governments are turning their attention to this broader view rather than focusing on the tools themselves. They are shifting from a *government-centric* paradigm to a *citizen-centric* paradigm, putting more attention on the context (*e.g.* social, organisational, and institutional factors) in which e-government is developing and on the outcomes for users.

Another dimension of the paradigm shift is a new focus on whether e-government activities contribute to the broader public welfare: do we all receive sufficient benefits (monetary and non-monetary) given the resources invested? Does e-government create enough welfare for all – meaning the public sector itself as well as its users? Shifting towards citizen centricity and aiming at high user take-up of e-government services makes good sense as governments will need to strike the balance between chasing *internal* organisational goals (*e.g.* efficiency and effectiveness) and *external* outcome goals (*e.g.* user focus, take-up, satisfaction, quality of services, and openness and transparency). The question here is: can the public welfare created by e-government services be achieved by other parameters rather than achieving the outcome of user take-up at "reasonable and acceptable costs"? Creating public welfare from e-government investment is about balancing outcomes such as large user take-up and satisfaction with the cost-effectiveness of the public sector as a whole.

Governments' increasing focus on user take-up should be seen in the context of this paradigm shift, where the political and managerial considerations regarding

balancing different aspects of the public welfare become important: is there a satisfactory balance between legitimate concerns over cost-effectiveness and the outcomes of investments made? These considerations have become central in government decisions on e-government implementation and lead to an increasing use of cost-benefit analysis of projects. E-Government projects have shifted from politically driven projects to those requiring substantial justification (like other public projects). Nowadays, they need to show a business case and a convincing argument for the return on investment.

Increasingly, governments do not see a contradiction between becoming citizen-centric in service development and delivery, and improving efficiency and effectiveness in the public sector as such. In fact, optimising e-government development for users, leading to higher user take-up, also leads to improved performance and more efficient usage of public sector resources in general. The question of using channel management proactively as an instrument for creating incentives for behavioural changes among users is actively considered by some countries, such as Denmark and the Netherlands.

Challenges to user take-up of e-government services

The paradigm shift towards citizen centricity has helped to focus governments' attention on why user take-up of e-government services is lagging. To understand the reasons why users utilise e-government services, one must understand the different prerequisites for using those services. One way to get an overview of these different prerequisites is to look at the existing experiences in OECD countries whose e-government programmes have been peer reviewed by the OECD. The main challenges for increased user take-up among those countries are:

- **Access** to electronic infrastructure, hardware, and software including "easy-to-use" considerations (*e.g.* user-friendliness and usability for special user groups such as physically or mentally disabled persons): services will not be used if users do not have access, or very limited possibilities for access, to an electronic infrastructure.
- **Provision** of e-government services – "stand-alone" or "fully integrated": no take-up can occur if services are not provided.
- **Awareness** of (the existence of) e-government services and how they are used: services will not be used if no one knows of their existence.

- **Organisation** of e-government services such as the degree of integration and personalisation of services, collaboration and co-operation between public authorities, standardisation, interoperability, etc.: making services easy to use by organising them in a simple and fully integrated way to increase the likelihood of users using them to solve their problems.
- **Outcomes** of e-government implementation, such as the actual use of e-government services and whether expectations regarding the quality of services, internal efficiencies, and external effectiveness are met: ensuring that users actually get their problems solved by using a service instead of binding human resources to help them during, or after, the use of a service will increase the likelihood of striking the right balance between harvesting the internal and external benefits, and at the same time increase the sense among users of improved service delivery.
- **Trust** by users in governments and their management of often sensitive personal information, data and digital identities: ensuring that information, data and digital identities are stored and used in a trusted and secured way respecting their integrity, authenticity, and privacy is among the basic prerequisite for higher uptake.

Even though the challenges mentioned above are apparent and logical, they are by no means easy to address. Surprisingly, challenges such as access, provision, awareness, and outcomes are in their essence *digital-divide-oriented* and show that the issue of digital divide is still an overarching and cross-cutting issue regardless of a country's specific e-government development stage: both mature and less mature e-government countries have digital divide challenges.

In addition, the issue of *trust* plays an increasingly important role for user take-up. A high level of trust ensures users that e-government services are safe to use; that information and data provided by the user to the public sector are handled with care by the authorities; and that the online environment is fully secure, and in accordance with basic and legitimate privacy considerations and expectations.

But what determines the provision of user-focused e-government services among OECD countries? Though governments provide e-government services, not all governments provide coherent services aimed at addressing individual user needs. The provision of improved and more user-friendly e-government services is often dependant on the technological state of the country, for instance with regard to ICT penetration in society at large.

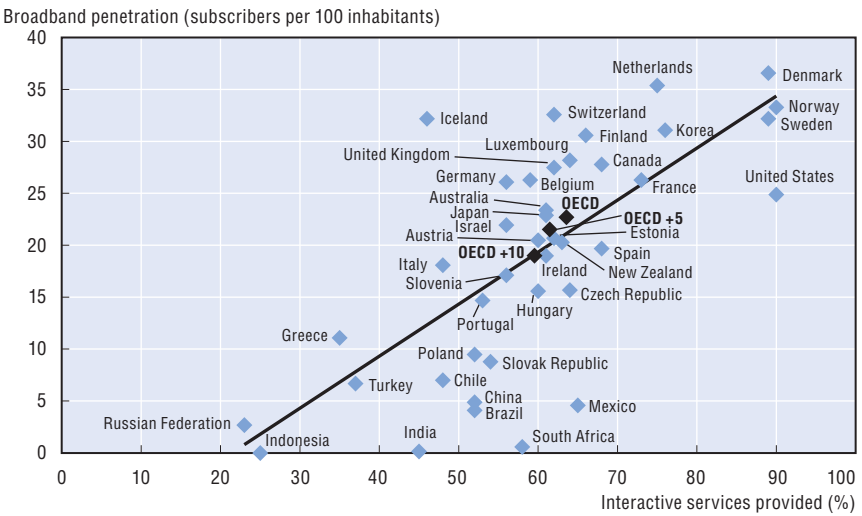
Technology-driven provision and improvement of e-government services

Whilst governments are focusing on how to become more user-focused in e-government service development, the next generation of these services – based on technological advancements – is emerging. Technological advancements utilised in the right way often improve user access to and usability of services. The development of those services is hence driven by the new possibilities emerging technology has to offer. The increase in the provision of and access to, high-speed networks, in particular, enables governments to offer new and more user-friendly services to citizens and businesses. Technological advancements have, thus, for many years been one of the drivers of e-government development.

An example of the infrastructure-driven e-government development is shown in Figure 0.3: the provision of interactive public services is high in countries with large broadband penetration. For example, countries like Denmark,

Figure 0.3. **Infrastructure-driven e-government development**

Broadband subscribers per 100 inhabitants (2007) *vs.* % of interactive service provision (2008)



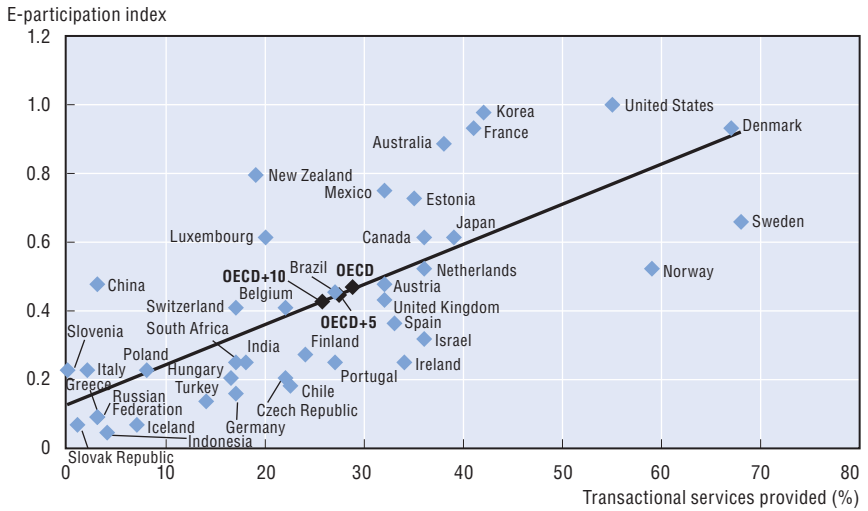
Note: "OECD" shows the OECD average. "OECD + 5" shows the OECD and the five accession countries to the OECD (Chile, Estonia, Israel, the Russian Federation, and Slovenia) average. "OECD +10" shows the "OECD + 5" and the five enhanced engagement countries to the OECD (Brazil, China, India, Indonesia, and South Africa) average.

Source: OECD compilation, 2008, based on United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, United Nations, New York; Table 7, Service Delivery by Stages 2008 (% Utilisation), page 207 ff; OECD Broadband Statistics: Broadband Subscribers per 100 Inhabitants, June 2007. For Brazil, Chile, China, Estonia, India, Indonesia, Israel, Russian Federation, and Slovenia the data are ITU (International Telecommunication Union) data on (total fixed) broadband penetration (subscribers per 100 inhabitants) and from 2007; for South Africa the broadband penetration data are from 2006.

Norway and Sweden occupy the first three places in the United Nation's E-Government Readiness Index 2008 benchmarking; they have high broadband penetration; and they also have a high level of interactive service provision. Even though technological advancement and penetration is not the only driving factor for the development and sophistication of e-government services in OECD countries, it is nevertheless one of the prerequisites for the provision and take-up of those services.

The use of transactional services is generally used by citizens who are confident with being online and use the Internet to communicate, and engage, with others. These citizens are more motivated to use electronic means to communicate with public authorities and often expect that public sector services are accessible on line. Figure 0.4 below shows the relationship between the provision of transactional services and e-participation. It confirms that OECD countries with a high e-participation index are most likely to be the countries which provide advanced transaction-oriented services.

Figure 0.4. **E-Participation and the provision of transactional services**



Note: "OECD" shows the OECD average. "OECD +5" shows the OECD and the five accession countries to the OECD (Chile, Estonia, Israel, the Russian Federation, and Slovenia) average. "OECD +10" shows the "OECD +5" and the five enhanced engagement countries to the OECD (Brazil, China, India, Indonesia, and South Africa) average.

Source: OECD compilation, 2008, based on United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, United Nations, New York; Table 7, Service Delivery by Stages 2008 (% Utilisation), page 207 ff and Table 8 E-Participation Index 2008, page 212 ff.

Besides the issue of access, a number of other challenging factors for user take-up will need to be taken into account. For example, one needs to consider socio-demographic factors where wealthy, young populations with higher

education and good economic standing tend to have fewer barriers to using e-government services than the less wealthy, educated, and skilled populations. A broad number of elements need to be addressed in order to increase user take-up.

Country approaches to increasing user take-up

How do OECD countries approach the question of increasing user take-up? Four general types of approaches emerge (Table 0.1) from looking at country approaches.

Table 0.1. **Types of country approaches to increasing user take-up**

Type of approach	Focus
Organisational and administrative simplification	This approach is characterised by a focus on making the organisation of e-government services simple and transparent. The focus is to give the user a "one-door-entry" to the public sector, and to ensure that services are functioning under a simple legal framework. Examples include portals and reduction of administrative burdens.
Situation-bound	A situation-bound approach is characterised by a focus on addressing typical life-event situations of users, thus meeting users with targeted solutions in typical situations at specific points in their daily lives. Examples include addressing physically disabled persons' need for different types of help or student needs for study grants.
Participatory and inclusive	A participatory and inclusive approach is characterised by a focus on motivating users to engage and influence government actions – thus making it attractive and relevant for users to use e-government services. Examples include portals for public consultations or public ICT centres in less populated areas with a difficult socio-economic context.
Marketing and channel management	A marketing and channel management approach is characterised by focusing on marketing e-government services and their advantages, often in close connection with channel management.

The different types of approaches are similar in that they increasingly target major segments of possible users of e-government services and confirm the trend among OECD countries of moving towards individualised services – whether these services are delivered physically or digitally. This is exemplified by an increasing number of countries (*e.g.* Denmark, the Netherlands, and Norway) evaluating, being in the process of implementing, or having implemented "personal Internet pages" which present individualised information and data from different public authorities across the public sector in one place. Another more classic example is the increasing use of pre-filled tax return forms in several OECD countries, *e.g.* France and the Nordic countries.

Governments want to meet user needs and demands, and address limited user satisfaction. This has highlighted the desirability to put in place monitoring and evaluation frameworks to systematically track whether user demands and needs are met through a higher user take-up and improved user satisfaction. Such measurement frameworks are essential to enable governments to target activities towards fulfilling the political goal of improved citizen centricity in service development and provision.

Tracking user take-up and satisfaction – understanding the reasons behind limited user take-up

Understanding the reasons behind limited user take-up of e-government services depends on systematic and periodic tracking of user take-up and satisfaction. Many OECD countries have only within the last three to five years adopted measurement frameworks which would allow them to monitor and evaluate user take-up and satisfaction. Learning about users in OECD countries in general has thus only recently begun. The table below shows which countries have adopted a national measurement framework.

Table 0.2. **OECD countries with (and without) a national measurement framework**

	Countries
Countries with a national measurement framework	Australia, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Portugal, Slovak Republic, Slovenia[1], Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.
Countries without a national measurement framework	Austria, Czech Republic, Finland, Hungary,[2] Ireland, Italy, Luxembourg, Poland.

1. Accession country to the OECD.
2. Hungary is in the process of introducing a national measurement framework.

Source: OECD 2008.

The countries with a national measurement framework first implemented and made them operational in the mid-2000s and beyond. Fourteen out of twenty two OECD countries with a national measurement framework in place by 1 March 2008 implemented and made it operational in 2006 or 2007. This indicates that measuring e-government service take-up in general is a new activity which is on the rise, with limited experience and solid data behind it – as also seen from the answers given by OECD countries to the 2007 OECD study, *E-Government as a Tool for Transformation*.*

* OECD (2007), "E-Government as a Tool for Transformation", OECD unclassified document, GOV/PGC(2007)6, 28 March, updated in Annex B.

Cross-cutting trends for increasing user take-up

OECD country experiences over the last ten years show that there are some cross-cutting trends which – in different contexts – are recognised and used to guide a more citizen-centric approach to e-government development:

- **Simple organisation:** A single government website acting as a one-stop-shop for e-government services makes it easier for users to find and access those services. Creating a simple organisational hub for e-government services, bundling them in a few (rather than many) portals, has simplified users' overview of and access to, services. Such an approach underscores the importance of having a fully integrated back-office where connectivity and inter-operability are secured for cross-organisational service solutions.
- **Same "look and feel":** Ensuring that common navigation and search architectures are used across all content and services heightens recognisability and improves usability.
- **Recognisability and marketing:** A strong brand for e-government services which is used proactively in targeted marketing efforts has proven to be an important prerequisite for user take-up. One of the recurrent challenges seen in a number of different national surveys is that users are often not aware of available services.
- **"Killer applications":** A focus on high-volume, high-frequency transactional services – use of high-impact and high-demand applications to drive take-up and usage – is a necessity to capture as many e-government users as possible. Some OECD countries combine this with targeted channel management, including making some e-government services mandatory.
- **Relevance:** Ensuring that targeted user context and topics are used at all levels of navigation, around which government services are packaged to meet specific user demand, will improve the perception of relevance of the services to users. This is particularly important when governments use a "life-event" approach to service organisation.
- **Inclusive service design:** Inviting users to participate in and contribute to service design will ensure (on- or offline) a focus for services on usability around user needs and demands.

To be truly user-focused, services should be organised around a holistic rather than agency or service-specific view of the user, which requires increased collaboration and co-ordination among government agencies. This has numerous benefits: increasing the take-up of e-government services, providing a higher-quality "experience" for users, and improving efficiency. This approach has been embraced by many OECD countries such as Canada, Denmark, the Netherlands, and New Zealand.

Conclusion

The paradigm shift is caused by the limited impact of government investments in developing and implementing e-government services over the past ten years. Governments want to reap the full benefits from e-government implementation now that many services have been put on line. The limited impact on user take-up is now targeted by shifting attention to user needs of and satisfaction with public service delivery, and by systematically tracking users to better understand their needs. Initiatives addressing the latter have only been taken up by OECD countries within the last decade.

Countries have moved towards rethinking not just their Internet-based service delivery, but service delivery in general (without regard to delivery channel) – to meet users with services on their terms. The goal is to provide services that fit each individual user, whether a citizen or a business. Experience among peer-reviewed OECD countries shows that there is a need to rethink the division of responsibilities and the organisational structures, and to change the historically bound administrative cultures in a public sector that is yet to see service delivery from a whole-of-public-sector view. Generic trends from country experiences have been identified to increase the users' awareness and use of available e-government services as well as to increase their access to these services.

As OECD countries increasingly focus on e-government usage and particularly that of its citizens, it is necessary to further explore how governments can set up frameworks to develop and deliver fully integrated online and offline services. One of the recurrent challenges experienced by OECD countries is that it is necessary to have an integrated front- and back-office that support and enhance integrated service delivery, regardless of which authorities have the formal responsibility for the services provided. The importance of being able to provide these integrated services in balance with legitimate privacy concerns and the protection of sensitive personal information and data in the public sector as a whole is on the political agenda of many countries. Countries are struggling to strike the right balance between addressing considerations regarding efficiency and effectiveness, providing excellent service quality and delivery, ensuring user-friendliness (including privacy and security considerations), and improving the broader public welfare.

It is clear that the discussion on public service delivery should not be focused on e-government tools, processes and procedures but rather on outcomes – that is, on users and their needs, and how governments can meet those needs. The paradigm shift from a government-centric to a citizen-centric view of public service delivery is a reality and will need to be explored further in future research.

Chapter 1

A Paradigm Shift Towards Citizen Centricity

For many years the use of information and communication technology (ICT) has been seen as the "silver bullet" that could improve the performance of the public sector and its service delivery. However, the adoption and use of e-government services (also known as user take-up of e-government services) remain low and far from satisfactory today. This report will analyse why ICT has not proved to be the silver bullet governments hoped for and will showcase the approaches and good practices that OECD countries have used to address lagging user take-up.

The historic focus on technology has overshadowed the organisational, structural, and cultural changes needed in the public sector. In the process of rendering internal government functions and processes efficient and effective, users were often forgotten. This lead to a significant change of focus and approach in the mid-2000s, from government centricity prioritising outcomes for governments, to user centricity prioritising outcomes for users of public services.

A paradigm shift government centricity to user centricity raises the question of whether e-government activities contribute to the creation of broader public welfare: does e-government create welfare for all – meaning the public sector itself as well as its users? Shifting towards citizen centricity with the goal of increasing user take-up in order to create public welfare is about balancing outcomes (large user take-up and satisfaction) with improving the cost-effectiveness of the public sector as a whole.

Over the last 10-15 years, governments have seen the adoption and use of information and communication technology (ICT) as the "silver bullet" that could improve coherency in public service delivery and at the same time free up resources through efficiency and effectiveness gains. Unfortunately though, the adoption and use of e-government services (also known as user take-up of e-government services) have been low[1] and remain far from satisfactory today.[2] This report will analyse why ICT has not proved to be the silver bullet governments hoped for and showcase the approaches and good practices that OECD countries have used to address the challenge of lagging user take-up of e-government services.

Governments have invested heavily in developing e-government services as part of their national ICT policy programmes for the public sector. ICT usage in governments since the 1960s has focused on the automation of tasks and processes to eliminate paperwork and reduce unnecessary, burdensome internal – often manual – processes and procedures. The impact on users – whether they were citizens, businesses, or the government itself – were indirect and often hidden: internal efficiency and effectiveness within a public authority were often only experienced as a reduction in waiting time for an answer to a user's question or request. The perception of ICT as solely a technical tool – at the level of a typewriter, a calculator, or a fax machine – was at the time broadly shared among politicians and management in the public sector.

Today, e-government (understood as both ICT usage and its broad impact on public governance) has moved from being "just another office tool", through the phase of being a tool for transformation of the public sector, to becoming a key lever for innovation and change. *E-Government as a Tool for Transformation* (OECD, 2007) explored these issues and emphasised that OECD countries are increasingly using e-government as a strategic tool for innovation of service delivery and as a support for structural and business process changes. It has become an integrated part of service delivery across the public sector, supporting and enhancing service delivery to users. Transformation of the public sector has clearly become a transformation towards a more open and user-friendly public sector which cares about user needs and demands.

A paradigm shift: From government centricity to citizen centricity

For many years the focus on technology has overshadowed the organisational, structural, and cultural changes needed in the public sector. This has left key challenges (*e.g.* legal and cultural barriers for collaboration and co-operation within and across levels of government – the prerequisites for building attractive, integrated, user-focused e-government services) unaddressed. In the process of rendering internal government functions and processes efficient and effective, users were often forgotten.

With increasing pressure from society on governments to become more efficient and effective and at the same time pay more attention to user needs, demands, and satisfaction, governments have been forced to rethink their approach to development and delivery. The message from the OECD e-leaders (the high-level national e-government representatives to the OECD Network of Senior E-Government Officials) at their meeting on 6-7 March 2008 in The Hague, Netherlands, was clear: the focus in public service delivery should be on user needs, demands, and satisfaction – not on the tools and service delivery channels governments have been focusing on since the mid-1990s. Integrating a citizen-centric approach to public service development and delivery raises a number of questions for governments:

- How can governments enable and support a more participatory and inclusive approach to public service development and delivery in order to ensure that user needs and demands are met by government services? Or, perhaps use ICT to develop a service-delivery framework and supporting tools that empower users to create their own personalised services to meet their individual needs?
- How can the public sector itself transform into a coherent whole, meeting users on their terms and not under the terms set by governments' administrative organisations, traditions and cultures?
- How can the current division of responsibilities and the organisational structures within the public sector be rethought to accommodate a whole-of-public-sector approach to service development and delivery?

This is a fundamental shift of thought and approach towards public service development and delivery: a new paradigm is emerging.

E-Government development has been part of different OECD countries' political and public sector reform agendas since the 1990s where attention was given to equipping administrations with ICT and how this could lead to better government.[3] Understanding the progressive transition from a government-centric e-government paradigm towards a user-centric paradigm requires a revision of and an agreement on the overall purpose and functioning of the public sector as a whole. E-Government development has in

this context traditionally focused on the *internal transformational drivers* of ICT usage. It has emphasised, for example, the potential for improving efficiency and effectiveness, resulting in increased productivity and organisational performance, cost reductions, and coherency in front- and back-office functionality. Public sector transformation and the focus on internal transformational processes have – by nature – a more programmatic or deterministic drive towards a government-centric view.

The shift of focus and approach towards user-centricity (with a special focus on citizens) in the mid-2000s is significant. Today, governments recognise that e-government is a key tool to support and enhance public sector performance in general. In particular, it has shown its strength as a tool to improve and enhance innovation in the public sector as a lever for new approaches to service development and delivery. Governments are turning their attention to this broader view rather than the narrow focus on the tools themselves. They are shifting from a *government-centric* paradigm to a *user-centric* paradigm, placing more attention on the context (*e.g.* social, organisational, and institutional factors) in which e-government is developing and the outcomes for users[4] in general.

A user-centric approach forces governments to rethink whether a "transformational" perspective on public service development and delivery is still the right one, or whether a user-centric perspective will be better served by adopting a new paradigm – a so-called *new perspective on public service development and delivery* – and how e-government in that regard could be viewed (see Table 1.1 for an overview of the two conceptual paradigms). Concretely, shifting the focus from the transformational or process-oriented view to a more "contextual" view on service development and delivery, looking

Table 1.1. **E-Government paradigms**

Paradigm	Focus
Government-centric (transformational orientation with an emphasis on organisational coherence)	• Processes and procedures. • Efficiency and effectiveness leading to cost-reductions. • Increased productivity. • Coherency in front- and back-office, enabling service integration. • Collaboration and co-operation within and across levels of government.
User-centric (contextual orientation with an emphasis on external coherence)	• Context-oriented. • Social factors: social and economic prerequisites and determinants, human behaviour and habits, cultural issues, etc. • Organisational factors: information and data sharing, integrated service organisation allowing for customisation and individualisation of services, "one-entry-only", personalisation to individual needs, etc. • Institutional factors: collaboration and co-operation between public sector institutions, "whole-of-public-sector" approach to service delivery, adaptive rules and regulations supporting "whole-of-public-sector" service delivery, etc.

Source: OECD, 2008.

at the interplay between ICT and broader social, organisational and political factors, will create a better conceptual understanding of user centricity in e-government development. It will also more directly address issues of importance for the increased user take-up of e-government services, *e.g.* socio-economic, institutional, organisational, and cultural issues.[5]

OECD countries are increasingly focusing on a user-centric public service delivery rather than e-government as such, for e-government today is mainly seen as an integral part of public service delivery. Governments cannot function without e-government and public service delivery has e-government as an integrated part of its design and delivery mechanisms.[6] The attention among OECD countries on user-centric service delivery confirms the progressive shift in paradigm. This raises the question of how to strike a reasonable balance between user centricity and broader societal needs: does user-centric e-government service provision create "enough" public welfare to make investment in it "worthwhile"? Creating and maintaining public welfare through the development and delivery of e-government services will be discussed below.

Improving public welfare

Another dimension of the paradigm shift is a new focus on whether e-government activities contribute to the creation of broader public welfare: do we all receive sufficient benefits (monetary and non-monetary) given the resources invested? Does e-government create enough welfare for all – meaning the public sector itself as well as its users? Shifting towards citizen centricity and aiming towards high user take-up of e-government services makes good sense as governments will need to strike the balance between chasing *internal* organisational goals (*e.g.* efficiency and effectiveness) and *external* outcome goals (*e.g.* user focus, take-up, satisfaction, quality of services, and openness and transparency).[7] The question here is: can the *public welfare created by e-government services* be more than achieving the outcome of user take-up at "a reasonable and acceptable cost"? Creating public welfare from e-government investment is about balancing outcomes such as large user take-up and satisfaction with the cost-effectiveness of the public sector as a whole.[8]

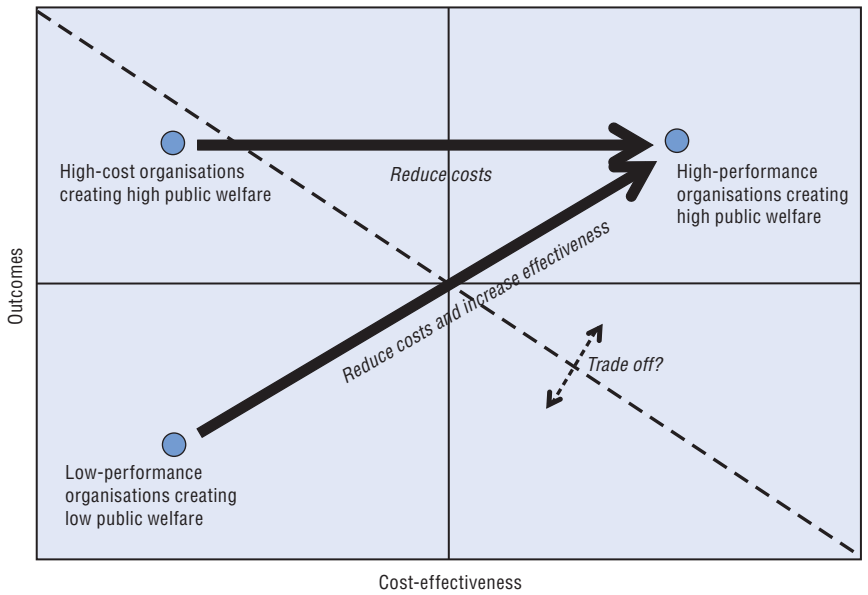
Governments' increasing focus on user take-up should be seen in the context of this paradigm shift, where the political and managerial considerations regarding balancing different aspects of the public welfare become important: is there a satisfactory balance between legitimate concerns about cost-effectiveness and the outcomes of investments made? These considerations have become central in government decisions on e-government implementation and lead to an increasing use of cost-benefit analysis of projects.[9] E-Government projects have developed from political

high-profiled projects to mainstream public investment projects that require thorough justification: nowadays, they need to show a business case and a convincing argument for the return on investment.

Increasingly, governments do not see a contradiction between becoming user-centric in service development and delivery and improving efficiency and effectiveness in the public sector as such. In fact, by experience, optimising e-government development for users, leading to higher user take-up, in general also leads to improved performance and more efficient usage of public sector resources. The question of using channel management proactively as an instrument for creating incentives for behavioural changes among users is actively considered by some countries such as Denmark[10] and the Netherlands[11].

Linking the public welfare of e-government services to the performance of an organisation, a sector, or the public sector as a whole might be a logical next step. Figure 1.1 illustrates this relationship: performance of an organisation is low if the outcomes and cost-effectiveness of e-government investments are low; performance is high if the outcomes and cost-effectiveness of investments are high. When striving for high outcomes at a

Figure 1.1. **Maximising public welfare – balancing outcomes with cost-effectiveness**



Source: OECD, 2008, inspired by Cole, Martin and Greg Parston (2006), *Unlocking Public Value: A New Model for Achieving High Performance in Public Service Organisations*, John Wiley and Sons, Inc., Figure 4.1, p. 64.

"reasonable price" in the public sector, it is necessary to ensure that all public organisations are high-performing individually as well as collectively. Low-performing organisations with low outcomes and low cost-effectiveness will need to follow a development path where outcomes and effectiveness are maximised while costs are minimised. Organisations with high outcomes but at a high cost will need to reduce costs while maintaining the achieved high outcomes. The question here is: how does an organisation assess and overcome the trade-offs to be taken? And how does a collective of organisations decide on the trade-offs needed to optimise the performance of the public sector as a whole in order to maximise the public welfare for all? (This dilemma is illustrated in Figure 1.1 by the dotted-and-dashed line.)

Even though the correlation model in Figure 1.1 is simplistic, it stresses the point that governments which strive to maximise public welfare from their e-government investments need to keep in mind how to balance outcomes with cost-effectiveness when deciding to implement e-government. They need to guarantee a close linkage between the outcomes and cost-effectiveness of their investments in order to ensure a valuable contribution to a high-performing public sector. One of these outcomes, in some cases, is an increased user take-up of e-government services (Box 1.1).

Box 1.1. **Australia: eCensus 2006**

Every five years the Australian Bureau of Statistics (ABS) counts the number and key characteristics of every person in Australia, including those living in remote areas such as the outback Northern Territory and offshore oil rigs. To do this, the ABS has traditionally had to employ a large temporary workforce to deliver forms to every household and then collect the completed forms after census night.

The introduction of eCensus as part of the 2006 Census of Population and Housing has made this huge task somewhat easier for the ABS – and potentially for all Australians. eCensus is a tool that provides every citizen with a robust, secure and easy alternative to completing the paper census form, and makes it easier for the ABS to count people living in isolated places. Importantly, it is also accessible for people with a disability as it uses assistive technologies such as screen-reader software. The system was fully accessible for people with a disability which meant that these people, especially those with vision impairment, no longer had to rely on a family member, friend or census collector to help them complete the paper form. In addition, the general community had more flexibility in completing their census forms, and could keep their data private from other members of their household or census collectors.

Box 1.1. **Australia: eCensus 2006** *(cont.)*

eCensus is easy to use for people who do not regularly use the Internet. This was an important consideration when developing the application as it would potentially be used by every household in Australia. It also had to perform well over slow dial-up connections, and meet World Wide Web Consortium accessibility guidelines. Furthermore, the ABS tested the application extensively to ensure it was fully compatible with a wide range of commercial and open source web browsers.

eCensus has proved to be very successful, with many positive outcomes for Australians in general and for the ABS. Approximately 780 000 households (9% of Australian households) used eCensus during the 2006 Census of Population and Housing. The ABS did not know how many people would use eCensus as this was the first time an online census had been offered in Australia and there were no comparable international experiences. Another issue was the peak load expected on census night. Despite the large load spike, with 315 000 forms submitted after 6.00 p.m. on census night and a peak of 55 000 users logged on at the same time, there were no load or performance issues.

In all, over 45% of people said the eCensus was easy to use and 35% said it was quick. Only 6% of respondents made negative comments about their experience in using eCensus. Given that 9% of Australian households used eCensus in 2006, despite it not being actively promoted before the census, the ABS is confident in using and promoting it as a primary channel for the 2011 census. The ABS expects a significant increase in the number of Australians who choose to use eCensus in 2011.

Source: Australian Government Information Management Office (AGIMO) (2007), *Excellence in e-Government Awards. 2007 Finalist Case Studies*. September 2007, Department of Finance and Administration, Australian Government. See also *www.finance.gov.au/publications/excellence-in-e-government-awards-2007-finalist-case-studies/e-census.html*, accessed 26 September 2008.

Creating the right conditions for integrated services is a prerequisite for maximising the public welfare of e-government. Integrating services across organisational boundaries and levels of government has, in all OECD country studies until 2008, proven to be one of the most difficult challenges to address. It is often necessary to share resources such as information and data, and the responsibility for the delivery of those cross-cutting services is not always clear in a traditionally line organised government administration. An increasing number of OECD countries, however, are addressing these challenges: Canada (Box 1.2), Denmark,[12] the Netherlands,[13] and the United Kingdom (Box 1.3) are examples of countries which are in the process of changing their organisational structures, responsibilities, service delivery mechanisms and channels in order to support and enhance a user-focused service delivery approach.

Box 1.2. **Canada: Service Canada – a one-stop-shop for public services**

Service Canada was created in September 2005 to provide enhanced, one-stop-shop services to Canadians, delivered with a strong client-service orientation. Over time, it will bring federal services and benefits together making it easier for Canadians to get more of the help they need in one place, whether by phone, Internet or in person. It has since its creation been in the process of integrating services from a number of federal departments to form a single service delivery network. Over time, it will continue to enhance and introduce more services with the goal of continuous improvement in service delivery and client satisfaction, including closer co-operation with provinces on one-stop-shop service delivery.

Service Canada's mandate includes providing Canadians with better services at lower cost, whether by operating services more cost-effectively or by tackling possible fraud and abuse of programmes. To achieve savings targets, a number of integrity strategies were introduced. For example, by implementing rigorous forecasting, planning, tracking, and reporting procedures, Service Canada achieved an accuracy rate of 94.5% for employment insurance claims. It also helped people applying for employment insurance benefits by providing comprehensive information sessions that helped them learn their rights and responsibilities under the programme. By improving the accuracy of its payments, standardising and automating its services, as well as improving the way it purchases goods and services for day-to-day operations, it delivered about CAD 424 million in savings during 2006-07, well beyond the set savings target of CAD 355 million.

Source: Her Majesty the Queen in Right of Canada (2007), Service Canada Annual Report 2006-2007, *www.servicecanada.gc.ca/en/about/reports/ar_0607/pdf/ar_0607.pdf*, accessed 24 August 2008.

Box 1.3. **United Kingdom: Shared services – making e-government service cost-effective**

The 2007 progress report on implementing the transformational government strategy established in November 2005 focuses on the benefits of shared services in the public sector. By working more closely together, government can save money, reduce waste and deliver personalised services in the way citizens and public sector workers want and expect. To deliver transformational government, the public sector needs common approaches to corporate services such as human resources, finance, information technology (IT) and procurement.

Box 1.3. **United Kingdom: Shared services – making e-government service cost-effective** *(cont.)*

It is not logical for each government organisation to have its own services for human resources, IT, pay, etc.. The Cabinet Office is promoting the use of *shared corporate services* across Whitehall to enhance *efficiency*, *effectiveness* and *employee experience*. Over half of all central government employees are now customers of shared corporate services. Discussions are taking place between departments about sharing not only corporate services, but IT infrastructures and delivery contracts, buildings, call centres and even staff.

- Government corporate services will be delivered through a handful of professional organisations – serving a minimum of 20 000 staff.
- People will have control of their information, enjoying the highest levels of assurance, transparency and self-service.
- To avoid duplication, the Department of Work and Pensions (DWP) and Her Majesty's Revenue and Customs (HMRC) have been designated providers of shared services to smaller departments. The Department of Work and Pensions is due to provide the Cabinet Office with shared human resources, finance and procurement services in 2008. This process will help other departments understand the mechanism by which small departments buy services from larger ones.

Source: United Kingdom Cabinet Office (2007), *Transformational Government – Our Progress in 2007: Delivering Better, More Efficient Service for Everyone*, *www.cio.gov.uk/documents/annual_report2007/tg_annual_report07.pdf*, accessed 24 August 2008; UK Cabinet Office (2005), *Transformational Government – Enabled by Technology*, *www.cio.gov.uk/documents/pdf/transgov/transgov-strategy.pdf*, accessed 24 August 2008.

Notes

1. The low user take-up of e-government services is reflected in a number of studies, *e.g.* the international study done by Accenture in 2002, *eGovernment Leadership – Realizing the Vision*, and subsequent e-government peer reviews documented in OECD country studies since 2003 (see also references in Note 2).
2. OECD (2003), *OECD e-Government Studies: Finland*, OECD, Paris; OECD (2004), *OECD e-Government Studies: Norway*, OECD, Paris; OECD (2005), *OECD e-Government Studies: Mexico*, OECD, Paris. OECD (2006), *OECD e-Government Studies: Denmark*, OECD, Paris; OECD (2007), *OECD e-Government Studies: Netherlands*, OECD, Paris; OECD (2007), *OECD e-Government Studies: Hungary*, OECD, Paris; OECD (2007), *OECD e-Government Studies: Turkey*, OECD, Paris; OECD (2008), *OECD e-Government Studies: Belgium*, OECD, Paris.
3. OECD (2005), *OECD e-Government Studies: e-Government for Better Government*, OECD, Paris.
4. "Users" refer to citizens, businesses, and employees in the public sector itself.

5. The different perspectives on e-government are discussed for example in Helbig, *et al.* (2005), "Understanding the Complexity in Electronic Government: Implications from the Digital Divide Literature", Proceedings of the Eleventh Americas Conference on Information Systems, Omaha, NE, 11-14 August.

6. The OECD E-Leaders Conference 2008, held on 6-7 March 2008 in The Hague, the Netherlands, discussed the future of e-government towards 2020. One of the significant conclusions was that the focus on e-government over the last ten years is being transformed into a stronger focus on service delivery and service delivery mechanisms – rather than on the enabling technology.

7. OECD (2007), "E-Government as a Tool for Transformation", OECD unclassified document, GOV/PGC(2007)6, 28 March 2007, Table 1, p. 15.

8. This important issue is also discussed in: Cole, Martin and Greg Parston (2006), *Unlocking Public Value: A New Model for Achieving High Performance in Public Service Organisations*, John Wiley and Sons, Inc. The book introduces the notion of "public value" of e-government investments and focuses on a number of case studies illustrating the trade-offs governments need to make when deciding on the value of proposed e-government projects.

9. OECD (2007), *Benefits Realisation Management*, OECD unclassified document, GOV/PGC/EGOV(2006)11/REV1, 29 March 2007.

10. Denmark closed the non-electronic tax reporting channel to citizens with effect from the tax return reporting in 2008 (see *www.skat.dk/SKAT.aspx?oId=1744385&vId=0*, accessed 22 August 2008) due to the fact that the tax authorities already had all the relevant information and data on citizens from reporting obligations for all relevant data sources such as organisations, institutions, business, etc. Since 1 February 2005, Denmark has demanded electronic invoicing if providers of services and products to the public sector wish to receive payment (see *www.oes.dk/sw1903.asp*, accessed 22 August 2008).

11. The case of the multi-channel strategy of the IB Groep (the Dutch Agency for Educational Grant Administration) shows that a targeted e-government strategy aimed at an agency's user population's. preferred communication channel can significantly affect user take-up. See OECD (2007), *OECD e-Government Studies: Netherlands*, OECD, Paris.

12. Establishing shared service centres are also a priority for Denmark. In February 2008 the Danish government decided to establish two service centres: one on ICT and one on human resource management. The centres will service all central government organisations (see *www.fm.dk/Publikationer/2008/Administrative%20servicecentre%20i%20staten%20-%20Hovedrapport/~/media/Files/Publikationer/2008/Download/administrative_servicecentre_rapport_feb2008.ashx*, accessed 24 August 2008.

13. The Dutch government has set up a number of cross-organisational units to support e-government implementation and operations using common e-government building blocks such as common registers, electronic identification, data standardisation, etc. These common building blocks are prerequisites for delivering integrated and user-focused e-government services. See OECD (2007), *OECD e-Government Studies: Netherlands*, OECD, Paris.

Chapter 2

Challenges to User Take-up

The paradigm shift towards user centricity has helped to focus governments' attention on ensuring user take-up of e-government services. To understand the reasons why users utilise e-government services, one must understand the different preconditions for using those services. These are: access to infrastructure and equipment, provision of e-government services, awareness of service provision, organisation of services, outcomes of implementation, and trust.

Access to, and provision of, e-government services are fundamental to the discussion of user take-up. Since the early 1990s, e-government has been largely driven by technology. The new opportunities technological development provided were used to improve government administrations and the quality and speed of service delivery. Improvements in the penetration of broadband and the development and the increased provision of sophisticated transaction-oriented and integrated services are factors that provide the prerequisites for increased user take-up.

A number of socio-economic and demographic factors need to be taken into account. Age, gender, education, income, location, employment and occupation are telling the story that the younger, richer, better educated and urban-bound a person is, the more likely this person will use e-government services over more traditional service channels. Users distinguish between the types of services or function they are comfortable with accessing on line and those they prefer to handle via traditional channels, or for which a mixture of the two is most appropriate.

Filling in and submitting tax return forms, registering companies, and submitting statistical data on line are examples of digitised public services which today are part of everyday life of both citizens and businesses in most OECD countries. The aim of providing e-government services in OECD countries is to improve public service delivery and to render public administrations more efficient and effective. But OECD countries have found that their investments in e-government development have not satisfactorily met expectations regarding the anticipated benefits and outcomes (*e.g.* efficiency and effectiveness gains; high user take-up and satisfaction).

The paradigm shift towards user centricity (see the discussion in Chapter 1) has helped to focus governments' attention on ensuring user take-up of e-government services. To understand the reasons why users utilise e-government services, one must understand the different preconditions for using those services. One way to get an overview of these preconditions is to look at the existing experiences in OECD countries whose e-government programmes have been peer reviewed by the OECD. The main challenges for increased user take-up among those countries[1] are:

- **Access** to electronic infrastructure, hardware, and software including "easy-to-use" considerations (*e.g.* user-friendliness and usability for special user groups such as physically or mentally disabled persons): services will not be used if users do not have access, or very limited possibilities for access to an electronic infrastructure.
- **Provision** of e-government services – "stand-alone" or "fully integrated": no take-up can take place if services are not provided.
- **Awareness** of (the existence of) e-government services and how they are used: services will not be used if no one knows of their existence.
- **Organisation** of e-government services such as the degree of integration and personalisation of services, collaboration and co-operation between public authorities, standardisation, interoperability, etc.: making services easy to use by organising them in a simple and fully integrated way to increase the likelihood of users using them to solve their problems.
- **Outcomes** of e-government implementation, such as the actual use of e-government services and whether expectations regarding the quality of services, internal efficiencies, and external effectiveness are met: ensuring that users actually get their problems solved by using a service instead of

binding human resources to help them during, or after, the use of a service will increase the likelihood of striking the right balance between harvesting the internal and external benefits, and at the same time increase the sense among users of improved service delivery.

- **Trust** by users in governments and their management of often sensitive personal information, data and digital identities: ensuring that information, data and digital identities are stored and used in a trusted and secured way respecting their integrity, authenticity, and privacy is among the basic prerequisite for higher uptake.

Even though the challenges mentioned above are apparent and logical, they are by no means easy to address. Surprisingly, challenges such as *access*, *provision*, *awareness*, and *outcomes* (which are in their essence *digital divide-oriented*) show that the issue of digital divide is still an overarching and cross-cutting issue regardless of a country's specific e-government development stage: both mature and less mature e-government countries have digital divide challenges.

In addition, the issue of *trust* plays an increasingly important role for user take-up. A high level of trust ensures users that e-government services are safe to use; that information and data provided by the user to the public sector are handled with care by the authorities; and that the online environment is fully secure, and in accordance with basic and legitimate privacy considerations and expectations.[2]

A significant conclusion from OECD e-government country studies is that the digital divide issue is one which is an equally relevant and pressing challenge to address for mature e-government countries like Belgium, the Netherlands, and the Nordic countries, as well as for e-government latecomers like Hungary, Mexico and Turkey. This universality of the subject is recognised broadly in OECD countries and is closely linked to the possibility of harvesting the full value of possible benefits of e-government investments.

But what determines the provision of user-focused e-government services among OECD countries? Even though governments provide e-government services, not all governments provide coherent services aimed at addressing individual user needs. The provision of improved and more user-friendly e-government services is often dependant on the technological state of the country with regard to, for example, ICT penetration in society at large. This aspect of user-focused e-government development will be discussed below.

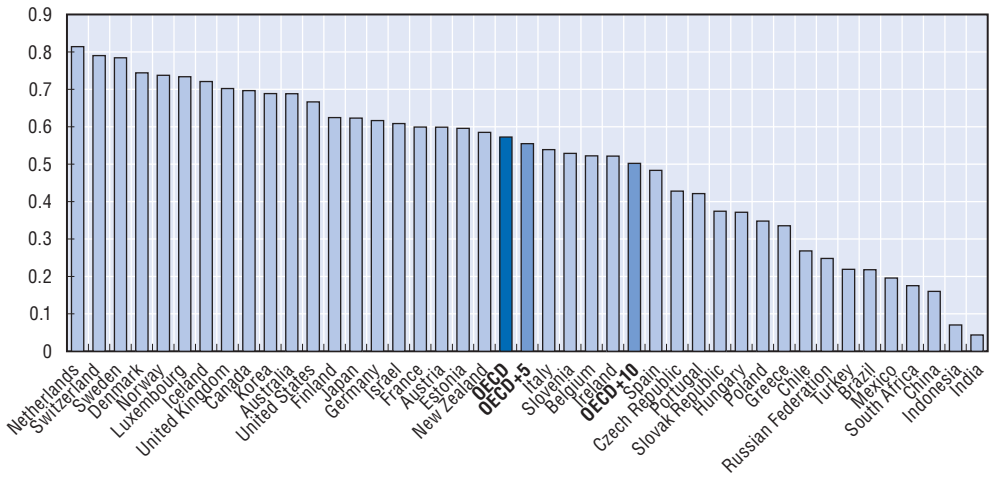
Access to e-government services

As access to e-government services is fundamental for the discussion of user take-up, it is necessary to get an overview of how the different access challenges impact user take-up. To gain access to e-government services,

users must have access to a basic ICT infrastructure such as electronic networks, computers, and relevant software.

Generally speaking, OECD countries have good ICT infrastructures, even though there is a significant variance between countries. The *UN Telecommunications Index* shows how "well-connected" a country is. Figure 2.1 shows the index for OECD, accession and enhanced engagement countries, and gives an indication of the countries' ICT infrastructure development stages.[3]

Figure 2.1. **UN Infrastructure Index 2008 for OECD, accession and enhanced engagement countries**



Note: "OECD" shows the OECD average. "OECD + 5" shows the OECD and the five accession countries to the OECD (Chile, Estonia, Israel, the Russian Federation, and Slovenia) average. "OECD +10" shows the "OECD +5" and the five enhanced engagement countries to the OECD (Brazil, China, India, Indonesia, and South Africa) average.

Source: OECD compilation, 2008, based on the United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, UN, New York, Table 4, Infrastructure Index 2008, page 188 ff.

The infrastructure index provides a first indication of whether a country has the basic electronic infrastructure in place for a given population to go on line – and thus indicates the possibility for access to e-government services. This is a necessary prerequisite which needs to be complemented by other prerequisites. These are, for example, socio-economic prerequisites (*e.g.* affordability of access with regard to infrastructure and ICT); competencies and skills (does the user have the necessary knowledge competencies and skills to use electronic services?); and incentives/benefits (is there a driver for the use of those services?).

As the stage of e-government development in a country is not necessarily correlated to the index level shown in Figure 2.1, it is, however, relevant to consider the importance of having the infrastructure in place – not just for

users in urban areas with a high population density, but also in less populated areas of a country. The discussion of the importance of access is seen in all OECD countries – whether they are "well-connected" and thus listed high in the index (*e.g.* the Netherlands, Switzerland and Sweden), or whether they are in the process of developing their infrastructure (as seen in countries such as Greece, Turkey and Mexico).

Improving user take-up requires – besides basic access to infrastructure – that e-government services are provided. Even though a country might have many access points to an electronic network infrastructure, the provision of e-government services also needs to be in place. The dependencies between the development stage of an infrastructure and the provision of services are explored further below.

Provision of e-government services

Since the early 1990s, e-government has been largely driven by technology. The new opportunities technological development provided were used to improve government administrations and the quality and speed of service delivery. Improvements in the penetration of broadband has also made access more economically affordable, thus enabling countries to take advantage of technology and further improve their e-government services (*e.g.* making them more interactive and transaction-oriented).

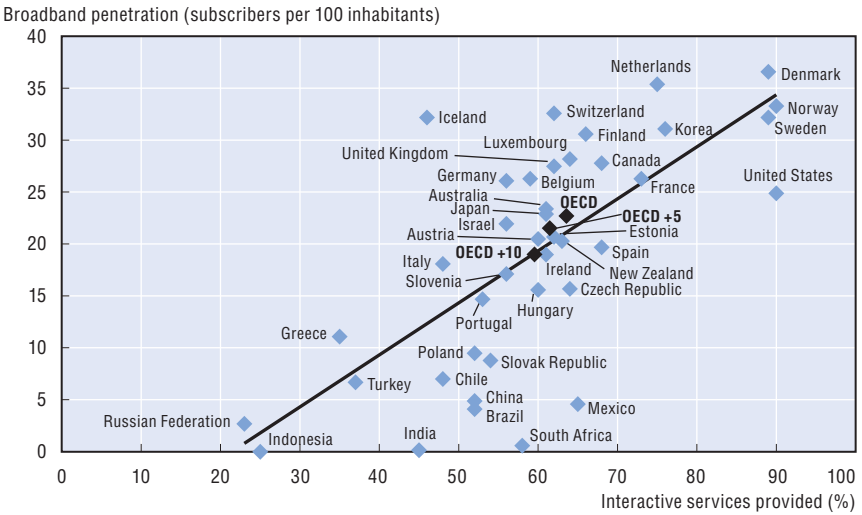
Figure 2.2 shows that the provision of interactive public services is high in countries with high broadband penetration, and low in countries with low broadband penetration. For example, e-government front-runner countries like Denmark, Norway and Sweden (which occupy the first three places in the *UN E-Government Readiness Index 2008* benchmark[4]) have high broadband penetration and a high level of interactive service provision. This trend is also confirmed in national surveys, *e.g.* Australia (Box 2.1) and Hungary.[5]

E-Government services follow different development stages with increasing sophistication: *i)* "push services" where information and data are made available to users; *ii)* "pull services" where information and data can be downloaded by users; *iii)* interactive services (*e.g.* electronic forms); *iv)* transactional services (*e.g.* full electronic case handling); and *v)* individualisation of services (*e.g.* automatic individualised information and data provision).[6] Figure 2.3 shows the sophistication of service provision across OECD, accession, and enhanced engagement countries.

Another question worth addressing is: will users who are already used to communicating and engaging on line be the drivers for the provision of e-government services? It is clear that those users who regularly engage and communicate on line tend to have greater expectations (and demands) of e-government services. This implicit demand can be illustrated by taking a

Figure 2.2. **Infrastructure-driven e-government development**

Broadband subscribers per 100 inhabitants (2007) vs. % of interactive service provision (2008)



Note: "OECD" shows the OECD average. "OECD +5" shows the OECD and the five accession countries to the OECD (Chile, Estonia, Israel, the Russian Federation, and Slovenia) average. "OECD +10" shows the "OECD +5" and the five enhanced engagement countries to the OECD (Brazil, China, India, Indonesia, and South Africa) average.

Source: OECD compilation, 2008, based on United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, United Nations, New York; Table 7, Service Delivery by Stages 2008 (% Utilisation), page 207 ff; OECD Broadband Statistics: Broadband Subscribers per 100 Inhabitants, June 2007. For Brazil, Chile, China, Estonia, India, Indonesia, Israel, Russian Federation, and Slovenia the data are ITU (International Telecommunication Union) data on (total fixed) broadband penetration (subscribers per 100 inhabitants) and from 2007; for South Africa the broadband penetration data are from 2006.

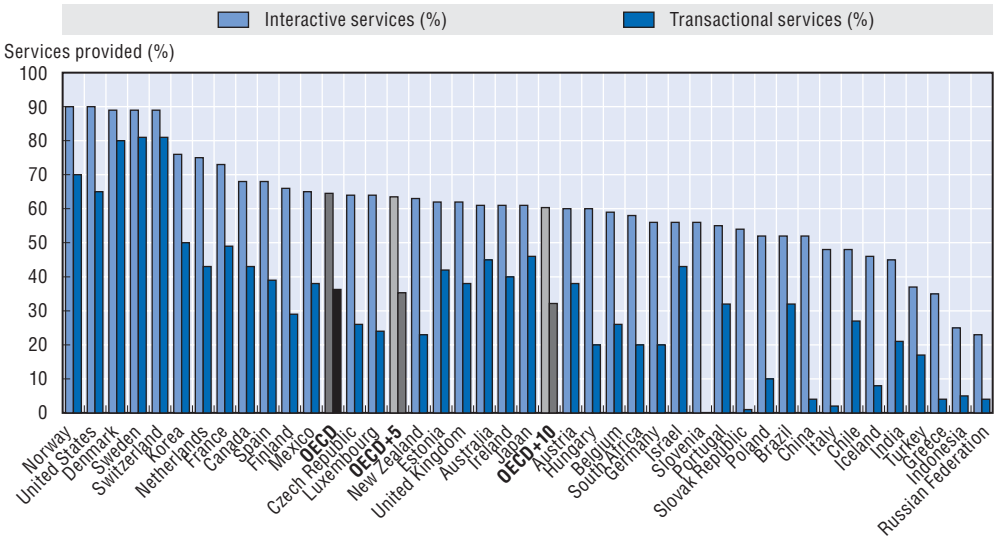
Box 2.1. **Australia: The Internet – an integral way of delivering government services**

The results of the 2006 Australian study of e-government use and satisfaction showed that those with broadband connections are more likely to use the Internet to access e-government services. The 2007 report showed a strong growth in broadband access and increasing use of the Internet for contact with government:

- broadband access has continued to grow, rising from 57% in 2006 to 68% in 2008;
- two-thirds (66%) of those who have contacted government in the past twelve months use the Internet and have a broadband connection.

Source: Australian Government Information Management Office (AGIMO) (December 2008), *Interacting with Government.Australians' Use of and Satisfaction with e-Government Services*, AGIMO, Department of Finance and Deregulation, Australia, *www.finance.gov.au/publications/interacting-with-government/docs/interacting-with-government-report.pdf*, accessed 3 January 2009.

Figure 2.3. **Sophistication of service provision**



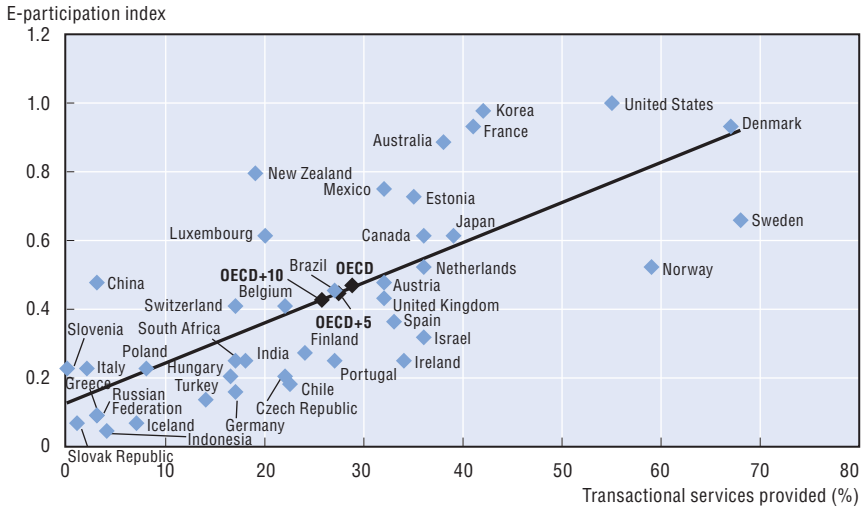
Note: "OECD" shows the OECD average. "OECD +5" shows the OECD and the five accession countries to the OECD (Chile, Estonia, Israel, the Russian Federation, and Slovenia) average. "OECD +10" shows the "OECD +5" and the five enhanced engagement countries to the OECD (Brazil, China, India, Indonesia, and South Africa) average.

Source: OECD compilation, 2008, based on the United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, UN, New York, Table 7, Service Delivery by Stages 2008 (% Utilisation), page 207 ff.

closer look at the relationship between electronic participation – *e-participation* – and the provision of transactional services. Looking at measures for online participation such as the *UN E-Participation Index*[7] provides a good indication of citizen engagement. These users are more motivated to use electronic means to communicate with governments and their administrations. E-Government services in general are therefore more often accessible for this user segment. Indeed, the probability of having this segment of users increase its usage of e-government services – and of advanced transaction-oriented services – is higher. Figure 2.4 shows the relationship between the provision of transactional services and e-participation. It shows a high likelihood that countries with a high e-participation index are also those most likely to have a high provision of advanced transaction-oriented services.

Even though Figure 2.4 only gives a picture of one specific aspect of the question of lagging user take-up, it also indicates, for example, that open and inclusive policy making that engages citizens on line can also become a driver for improving user take-up of e-government services. Looking at the goals for open and inclusive policy making with respect to governments confirms that governments seek to improve effectiveness and efficiency (39% each) along with transparency/accountability (52%) – while the majority ranked "increasing

Figure 2.4. **E-Participation and the provision of transactional services**



Note: "OECD" shows the OECD average. "OECD +5" shows the OECD and the five accession countries to the OECD (Chile, Estonia, Israel, the Russian Federation, and Slovenia) average. "OECD +10" shows the "OECD +5" and the five enhanced engagement countries to the OECD (Brazil, China, India, Indonesia, and South Africa) average.

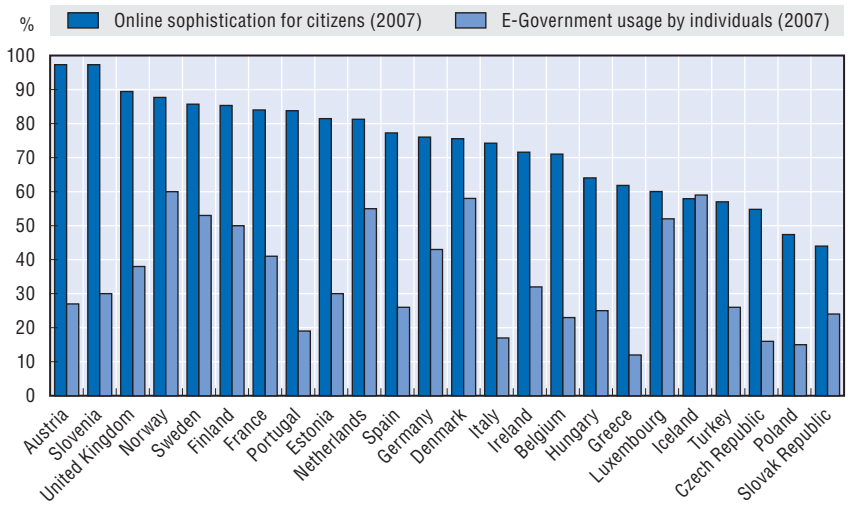
Source: OECD compilation, 2008, based on United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, United Nations, New York; Table 7, Service Delivery by Stages 2008 (% Utilisation), page 207 ff and Table 8 E-Participation Index 2008, page 212 ff.

citizens' trust in government" as "very important" or "important" (61%) as a goal with respect to citizens – one of the key challenges for addressing the lagging user take-up of e-government services (see Chapter 1).[8]

Use of e-government services

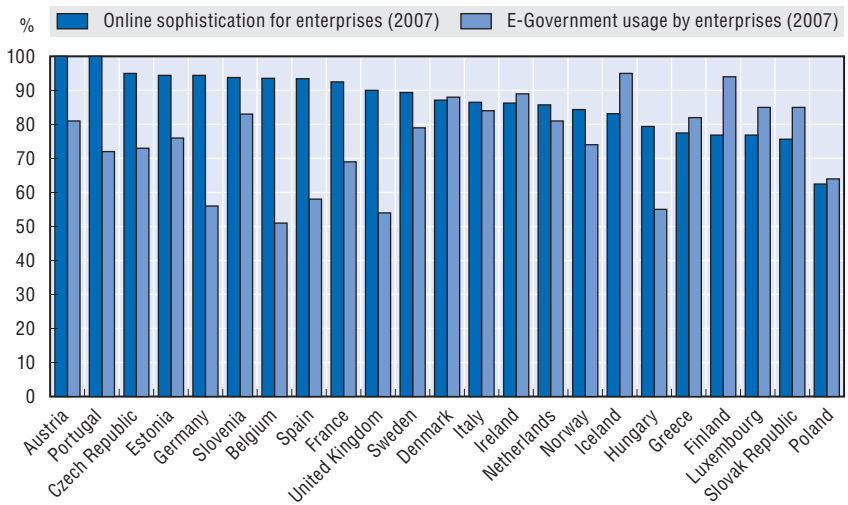
Differences in uptake of e-government services across countries are not fully linked to the quality and quantity of the supply of e-government services: the explanation is broader and more diversified. The European Union has tracked e-government take-up since 2001. Figures 2.5 and 2.6 show Eurostat data on the use[9] and European Commission data on online sophistication[10] of selected e-government services for citizens and businesses[11] in 2007. The gap between the supply and use of e-government services is in general a significant trend in the figures, suggesting that there is limited correlation between the provision of e-government services and their sophistication on the one hand, and the take-up of e-government services on the other. Even though the two sets of data (the supply of a selected set of core e-government services and the uptake of e-government services in general) are not directly comparable, the trend highlights the need to look beyond the indicators at hand to find explanations to this dilemma.

Figure 2.5. **Comparisons between use and online sophistication of public services for citizens, 2007**



Source: OECD 2008 compilation, based on Eurostat, October 2007 data on e-government usage by individuals; European Commission (2007), *The User Challenge Benchmarking The Supply Of Online Public Services. 7th Measurement, September 2007*, prepared by Capgemini; data on online sophistication for citizens. The data for Turkey on e-government usage is from the Turkish Statistical Institute's ICT usage survey on households and individuals 2007 (see *www.turkstat.gov.tr/PreHaberBultenleri.do?id=605&tb_id=15*, accessed 28 August 2008). The data set selection for this figure contains only OECD countries and accession countries to the OECD (Estonia and Slovenia) covered by European Union data collections and surveys.

Figure 2.6. **Comparisons between use and online sophistication of public services for businesses, 2007**



Source: OECD 2008 compilation, based on Eurostat, October 2007 data on e-government usage by enterprises; European Commission (2007), *The User Challenge Benchmarking The Supply Of Online Public Services. 7thMeasurement, September 2007*, prepared by Capgemini; data on online sophistication for businesses.

For businesses (Figure 2.6), the situation is different. There is a significantly higher take-up trend due to many countries' prioritisation of an efficient and effective interaction between businesses and public authorities. In many countries, it is often easier to require the private sector to follow specific procedures, including the use of ICT, through requirements in the regulation of businesses than it is for citizens, where other considerations such as universality and equal treatment are more dominant. Some countries (*e.g.* Denmark, Hungary, and Spain) have made selected reporting mandatory to public authorities by using electronic means.[12]

Both figures show that there is a high level of provision and sophistication of e-government services for citizens and businesses across European Union member states. But is the trend the same in non-European Union OECD countries with regard to political awareness and action?

OECD e-government country studies[13] and studies of national user take-up in other OECD countries such as Australia (Box 2.2), Canada,[14] Korea (Box 2.3), New Zealand (Box 2.4), and the United States (Box 2.5) confirm that improving

Box 2.2. **Australia: Use of e-government services has increased since 2004-05**

The results of the 2008 Australian Survey of E-government Use and Satisfaction showed that e-government services use has increased since 2004-05:

- E-government (Internet and telephone) use has seen sustained growth since 2004-05, with a corresponding decline in in-person contact over the same period. This growth in e-government has been driven by the Internet to the point where Internet use has doubled in the four years to 2008 (rising from 19% in 2004-05 to 38% in 2008). Use of the Internet to contact government, is for the first time, now slightly higher than contact in person (34%).
- Use of e-government (Internet and telephone) channels for government contact has continued to grow. Growth is being driven by increased use of the Internet rather than the telephone.
- The Internet is now the most common way people last made contact with government:
  - in 2008 nearly two-thirds of people had contacted government by Internet *at least once* in the previous 12 months;
  - more than 30% now use the Internet for the majority (all or most) of their contact with government, doubling the rate reported in 2004–05;
  - in 2008 the Internet replaced in-person contact as the most common way people had last made contact with government;
  - Since 2007, the Internet has been the most *preferred* way to contact government.

Source: Australian Government Information Management Office (AGIMO) (December 2008), *Interacting with Government. Australians' Use of and Satisfaction with e-Government Services*, AGIMO, Department of Finance and Deregulation, Australia, *www.finance.gov.au/publications/interacting-with-government/docs/interacting-with-government-report.pdf*, accessed 3 January 2009.

Box 2.3. **Korea: Targeting low user take-up through new national plan (2008-11)**

The Korean government has long recognised the challenges of lagging user take-up of e-government services. A survey made by the former Korean Ministry of Government Administration and Home Affairs (MOGAHA) back in 2006-07 showed that the general user take-up of e-government services increased from 23% in 2003 to 46.6% in 2006.

Despite the improvements in user take-up, there were still significant challenges to handle, including the fact that 50.7% of citizens did not know how to access the provided e-government services and that traditional offline services were still the preferred method of access to public services. Regarding businesses, 74% of companies used e-government services and 93% of them experienced less red tape. On the other hand, 32.9% of companies did not know which services were provided on line.

A newly established four-year national plan running from 2008 to 2011 aims at increasing user take-up significantly. The target for 2011 is 90% (public awareness), 60% (user take-up), and 80% (service satisfaction). (See also Box 3.23.)

Source: Korean Ministry of Public Administration and Security (2008).

Box 2.4. **New Zealand: High user take-up – still a long way to go**

State Services Commission (2004), *Channel-Surfing: How New Zealanders Access Government*, September 2004, and the latest survey from 2008, *Public Satisfaction with Service Quality 2007: The Kiwis Count Survey*, April 2008, show that there are significant challenges to address regarding user take-up and satisfaction of public services. The most common method of contact is to visit an office or location (47%); the second most common method of contact is calling on the telephone (24%); using websites or e-mails is relatively uncommon, with only 4% of New Zealanders using a website to contact a public service and only 3% using e-mail. However, it may be that when answering the survey, New Zealanders did not consider using a website as "contacting" a service. For example, the World Internet Project (*The Internet in New Zealand 2007*) found that 47% of New Zealanders use the Internet to access government, mainly for information about government's services.

Source: AUT University (2007), *The Internet in New Zealand 2007. Final Report*, World Internet Project New Zealand, Institute of Culture, Discourse and Communication, AUT University, Auckland, New Zealand, *www.wipnz.aut.ac.nz*. The World Internet Project report on New Zealand can be downloaded from *www.aut.ac.nz/resources/research/research_institutes/ ccr/wipnz_2007_final_report.pdf,* accessed 4 October 2008.

Box 2.5. **United States: Targeting higher user take-up and satisfaction**

The US Federal Government has since 2006 measured the performance of 18 out of 26 federal e-government initiatives identified jointly by the Office of Management and Budget of the Executive Office of the President, and federal agencies (see *www.whitehouse.gov/omb/egov/c-7-index.html*, accessed 29 May 2008).

The metrics used cover adoption/participation by, *e.g.* agencies and bureaus, usage by the targeted end-user, and customer satisfaction with the initiative's products and/or services. For example, the number of inquiries handled by visits to the portal FirstGov.gov and other portals for the measurement period as of 31 December 2007 were 35 143 320 with the target number of users for the fiscal year 2008 of 153 795 000; customer satisfaction with government websites was 74 (on a scale of 0-100 using the American Customer Satisfaction Index [ACSI] aggregated of all federal websites) with the target for the fiscal year 2008 of 75.

In the report *Expanding E-Government – Achieving Results for the American People* released on 19 May 2008 (*www.whitehouse.gov/omb/egov/documents/2008_Expanding_E-Gov_Report.pdf*, accessed 29 May 2008) it is noted in a status statement for the fiscal year 2007 that "we successfully completed major implementation milestones, showing greater adoption and use of these services from citizens, businesses and government agencies, and shutting down legacy systems" (from page 7, first paragraph). The Federal Chief Information Officer Council's new strategic plan released on 22 May 2008 (*www.cio.gov/documents/CIO_Council_Strategic_Plan_2008-9.pdf*, accessed 29 May 2008) shows in Goal 4 "a commitment to implement new and emerging collaborative technologies to enable more streamlined information exchange with key external and internal stakeholders and in particular the American public."

user take-up as an integrated part of improving public sector service delivery – and specifically user take-up among citizens – is a high political priority.

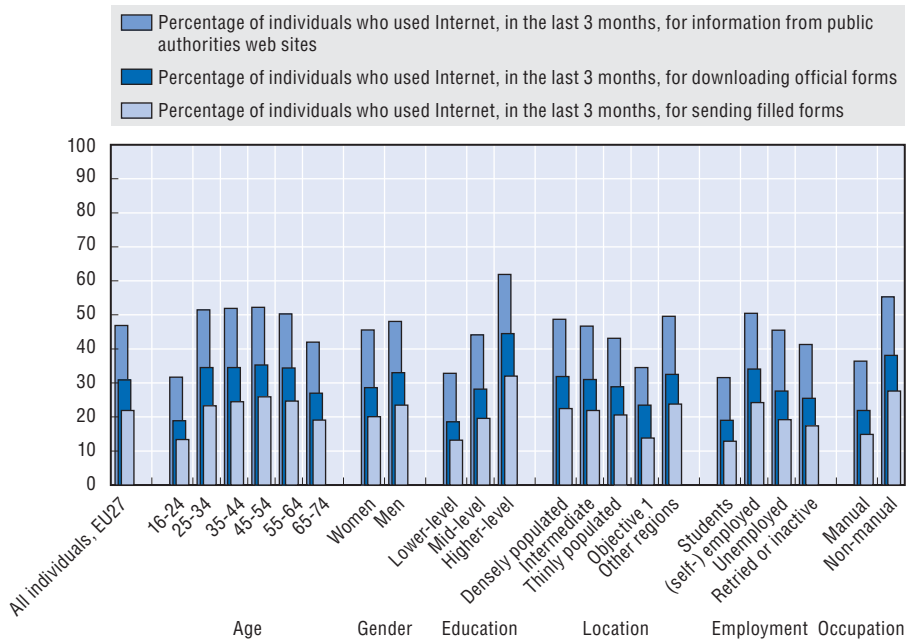
Given low user take-up, high availability of e-government services does not always mean that governments have successfully transformed into better governments. The success measure for governments in the next phase of e-government will be high usage and high satisfaction with e-government services. Hence, new indicators are currently being developed that include:

- the Information Society Index;
- user-friendliness of e-government services;
- accessibility of e-government services, and benefits realisation of e-government services;
- trust in government.

Types of users

Many studies have shown that the extent to which e-government services are used varies by type of user. Figure 2.7 shows that employed citizens use e-government services more than other groups, as do those who are younger (with the exception of those under 25) and who are better educated. The digital divide issue arises in this context as it is the poorer, less educated, less skilled and more vulnerable citizens who make greater direct and greater indirect demands on government, but who face much greater access barriers via both electronic and traditional channels.

Figure 2.7. **E-Government use by socio-demographic group**



Source: OECD 2008 compilation, based on Eurostat, 2008 data. See: *http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1996,45323734&_dad=portal&_schema=PORTAL&screen=welcomeref&open=/isoc/isoc_pi/isoc_pi_d&language=en&product=EU_MASTER_information_society&root=EU_MASTER_information_society&scrollto=0*, accessed 16 September 2008.

The Australian 2008 survey on *Australians' Use of and Satisfaction with e-Government Services* (see Box 2.6) shows in general the same trend of socio-demographic profiles for e-government users as seen for Europe in Figure 2.7, for example: the population segment in the age group 25-54 is the segment which most actively uses e-government services; the higher educated segment tends to have more active users than the lower educated segment; the segment in densely populated areas has more active users than the

segment in thinly populated areas; the employed segment has more active users than the unemployed segment; and the segment with non-manual (or office-based) occupation tends to have more active e-government users than the segment with manual occupation.

Governments, unlike businesses, do not choose their clients and are obliged to serve everyone – regardless of whom they are or where they are located. The eUSER survey[15] shows, however, that although socio-demographic factors are quite important, Internet and e-government supply side issues, as well as individual technical skills and orientation, are even more important. The persons therefore responsible for implementing e-government strategies have to consider that a significant part of society lacks ICT access and will therefore continue to depend on alternative and more traditional service channels.

A Eurostat household survey found that, in the EU25, 35% of Internet users (*i.e.* individuals who used the Internet within the last three months) used the Internet to replace personal contacts or visits to public administrations and a further 37% would be interested in doing so. Only 28% of Internet users stated they were not interested.[16]

Box 2.6. **Australia: Socio-demographic profiles of e-government services users**

The results of the 2008 Australian Survey of E-government Use and Satisfaction showed socio-demographic profiles regarding digital divides e-government services equivalent to those seen in the studies made in Europe commissioned by the European Commission (see also Figure 2.7). A number of factors affect the likelihood of people having used the Internet to contact government at least once in the previous 12 months:

- **Age:** Younger people are more likely to use the Internet to contact government. Seventy-seven per cent of 44 year-olds or younger use the Internet to do so, compared with 27% of those 65 or older. Those aged 25 to 34 have the highest rates of use (81%). Rates are increasing across all ages, but growth in the use of the Internet to contact government has been strongest in the older age groups. Rates have doubled for those aged 55 to 64 (from 28% in 2004–05 to 57% in 2008) and nearly tripled for those aged 65 or more (from 10% in 2004-05 to 27% in 2008).
- **Personal income:** Those with lower incomes are less likely to have contacted government by Internet. At least four in five of those with a personal income above AUD 70 000 have used the Internet to contact government compared with three in four among those earning between AUD 50 000 and AUD 70 000; two-thirds of those earning between AUD 30 000 and AUD 50 000 and half of those with a lower income.

Box 2.6. **Australia: Socio-demographic profiles of e-government services users** *(cont.)*

- **Employment:** Those in the workforce[1] (73%) are more likely to have contacted government using the Internet than people not in the workforce (59%) and those who are retired (35%).
- **Nature of employment:** People employed in office-based occupations[2] (78%) are more likely to have used the Internet to contact government than those engaged in non-office occupation[4] (65%).
- **Education:** 76% of those who have completed, attempted or are currently completing some form of post-secondary studies used the Internet to contact government. This compares with 59% who had completed high school, but no other studies, and 35% who had not completed year 12 of high school (or its equivalent).
- **Household type:** Households with dependent children[3] (72%) are more likely to have used the Internet to contact government than other families[5] without dependent children (60%) and single adults without dependent children (53%).
- **Location:** Those living in regional areas (54%) are less likely to have used the Internet to contact government than those in metropolitan (66%) or rural/remote (62%) areas. The proportion of those living in rural or remote areas that have used the Internet to contact government in the previous 12 months has increased notably: from 45% in 2007 to 62% in 2008.

1. The "workforce" includes those working full or part time or looking for work. "People not in the workforce" includes students, non-workers and people undertaking home duties.
2. Managers or administrators, professionals, community and personal service workers and clerical and administrative workers.
3. Includes couples and single parents with dependent children.
4. Technicians or trade workers, machinery operators or drivers, labourers.
5. Couple without dependent children or extended families.

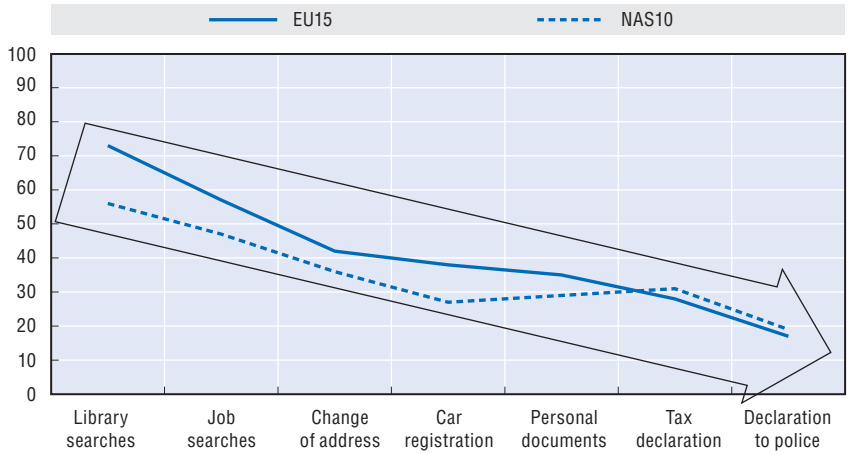
Source: Australian Government Information Management Office (AGIMO) (December 2008), "Interacting with Government. Australians' Use of and Satisfaction with e-Government Services", AGIMO, Department of Finance and Deregulation, Australia, *www.finance.gov.au/publications/interacting-with-government/docs/interacting-with-government-report.pdf*, accessed 3 January 2009.

User demand for e-government services across OECD countries

In relation to what e-government service users would like to be offered, SIBIS (Statistical Indicators Benchmarking the Information Society) undertook a few detailed surveys in 2002.[17] User preferences clearly distinguished between the types of services or functions which they are comfortable with accessing on line and those they prefer to handle via traditional channels, or for which a mixture of the two is most appropriate.

Figure 2.8 shows that the online search for books available in public libraries requires minimal information about the users and rates high among them. The use of job search services can also be carried out by revealing

Figure 2.8. **Preferred ways of interacting with government**



NAS: New Accession Countries as surveyed in 2003. The countries were: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia.

Source: SIBIS Pocket Book 2002-2003. See also *www.sibis-eu.org/publications/pocketbook.htm*, accessed 14 September 2008.

minimal information about the users. The announcement of a change of address gives relatively little information about an individual. A similar interpretation can be assigned to other services. Least preferred is a declaration to the police, which requires that a great deal of private information be divulged. This is summarised in Figure 2.8, where the various government services are ranked so that those requiring the least amount of personal information are on the left and those requiring the most amount of personal information are on the right. Generally speaking, e-government services which do not require users to reveal a great deal of personal information are more popular than those that do.

These findings show that different channels for contacting government are often perceived quite differently in terms of privacy and/or security protection. This was noted in a study from 2003 where Germany experienced that 72% of those surveyed were satisfied or very satisfied with the general information offered by their city or town, 61% with information updates, and 48% with the local news value. By contrast, only 27% awarded this rating to available e-government services, and only 24% were satisfied with interactive services (e-mail, online forums, chat), which allow citizens to participate in political processes.[18]

In Australia, the key motivating factor for users to use the e-government service delivery channel is convenience (see Box 2.7): Internet scores highest on convenience with 83% of users reporting this, compared to 44% for the telephone and 39% for in-person contact. The satisfaction rate for achieving an outcome

Box 2.7. **Australia: "Convenience" as the main reason for choosing the Internet delivery channel**

The results of the 2008 Australian Survey of E-government Use and Satisfaction showed that convenience was the main deciding factor in users' choice of service delivery channel:

- **Internet:** The prime motivator for contacting government by Internet continues to be convenience (83% in 2008 compared with 80% in 2007). Features of the Internet are important for 20%, a slight decrease from 2007 (26%).
- **Telephone:** Convenience also remains an important motivator for selecting the telephone. Fourty-four per cent of telephone users mentioned aspects of convenience as reasons for selecting this means of contacting government, a slight decrease from 2007 (50%). Equally, the specific features of telephone contact are a motivator for 44% in 2008 (40% in 2007), particularly the speed and convenience of using an automated telephone system (21%). There is also a small group (12%) who prefer to speak to a "real person".
- **In-person:** All three themes have relatively similar levels of influence in the decision to contact government in person. Convenience, as a factor influencing the choice to make contact in person, has however increased in relative importance from 2007 (29%) to 2008 (39%). This is now equal with availability (39% in 2008, 35% in 2007) as the leading motivator for using this channel. Features of in-person contact were also mentioned in 2008 by 30% as a reason to select this means of contacting government. This is similar to the level recorded in 2007 (34%).
- **Mail:** Availability of other channels continues to be the dominant motivator for selecting mail as the means of contacting government. Fifty-five per cent of those who did use mail in 2008 did so because it was the only possible form of contact (44% in 2007). One in four, 27% (25% in 2007) nominated convenience and features of the channel (23% in 2008; 23% in 2007) as a factor in their choice.

Source: Australian Government Information Management Office (AGIMO) (December 2008), "Interacting with Government. Australians' Use of and Satisfaction with e-Government Services", AGIMO, Department of Finance and Deregulation, Australia, *www.finance.gov.au/publications/interacting-with-government/docs/interacting-with-government-report.pdf*, accessed 3 January 2009.

also shows the same tendency of having the Internet delivery channel scoring 91% followed by in-person (89%), telephone (83%), and mail (78%).

The 2005 European eUSER survey clearly showed that e-government services users seem to make a more conscious choice about channel characteristics, compared to others, by using a much greater range of channels – and not just the Internet.[19] The Australian survey[20] also shows that

for satisfaction with ease of use, ratings between channels are close, although the Internet is seen as marginally better with 72% of users stating they are extremely or very satisfied when using it compared to 71% for in-person and 67% for the telephone. Similarly, differences between government levels using all available channels in terms of ease of use of services are not large: at local level, 65% are extremely or very satisfied compared to 72% at state and territorial level, and 73% at national level. Focus groups participants raised a range of concerns, particular with ease of use for specific groups and individuals.

Needs analysis of users across OECD countries

The 2003 European Commission-supported Top-of-the-Web survey on the quality and usage of public e-government services included a pan-European sample of users (24 788 users and 3 326 companies) and 3 767 webmasters of public websites.[21] The survey found that usability is the most important factor in users' overall evaluation of e-government services, and that the overall quality of those services is quite high. Almost 80% of the users approved of the quality of e-government services and more than half were very satisfied with the service. Moreover, almost 80% of users indicated that they would recommend the service to other people they knew. These users were perhaps more advanced ICT users than the average European citizen, but the result is a clear indication that these early users are e-government service ambassadors in Europe and play an active role in disseminating knowledge about those services.

The 2004 Top-of-the-Web survey covered 48 228 users (19 896 responses from citizens and 28 332 responses from business users) and confirmed the tendency recorded in the 2003 survey. The survey also provided firm indications of the benefits of e-government services: both citizens and businesses responded that saving time (83% for citizens and 84% for businesses) and flexibility (65% for citizens and 58% for businesses) were the significant advantages they experienced using those services.[22]

Saving time and gaining flexibility, users find electronic services to be an improvement as they can access services on line, 24 hours a day, instead of only during office hours. However, service improvements on top of these channel improvements are only experienced by 30-40% of users. This indicates that e-government services are basically traditional offline services which are now offered on line without much additional refinement or development. Fundamental process integration (back-office) and improved service delivery (front-office) are needed to create integrated services and achieve the combined benefits of both strategies. Hence, webmasters and e-government service providers can significantly improve the quality of their

services, today a major challenge. A 2008 survey on eAccessibility of public websites across the European Union showed that relatively few (only 3%) followed the W3C Web Content Accessibility Guidelines and that 70% revealed relatively pervasive failures.[23] There is a clear need in terms of effectiveness (as well as inclusion of disadvantaged groups) to improve this situation.

The Top-of-the-Web survey identifies usability as very important for overall user satisfaction. The overall picture is that the majority of the users are satisfied, but 28% experience usability problems in one way or another. The single most important factor for citizen satisfaction is reported as *ease of use* of websites, whereas the most important factor for business satisfaction is the *speed* of websites. The most frequently experienced problem among users is difficulty in actually finding what they are looking for. Thus, *usability* remains a very important issue in the provision of e-government services and webmasters need to tackle this challenge urgently, for example through improved channel integration, and by focusing on making the services easier to find and use.

Notes

1. The following countries have been reviewed by the OECD since 2003: Belgium, Denmark, Finland, Hungary, Ireland (public service delivery), Mexico, Netherlands, Norway, Portugal (administrative simplification and e-government), and Turkey. *See also Chapter 1, Note 2, for a complete list of country study references.*
2. No OECD data have been collected regarding reasons such as security, privacy, and trust concerns for not using e-government services. However, official data do exist for not buying/ordering goods or services on line. These data support that security, privacy and trust concerns are reasons for not buying on line and thus can support a parallel conclusion that those concerns might also cover the use of e-government services. See Figure 32 (Security, privacy or trust concerns as reasons for not buying/ordering any goods or services on line, 2005) in OECD (2008), *Measuring Security and Trust in the Online Environment: A View Using Official Data*, OECD Working Party on Indicators for the Information Society, DSTI/ICCP/IIS(2007)4/FINAL, 29 January 2008.
3. The *UN Telecommunication Infrastructure Index 2008* is a composite index of five primary indices relating to a country's infrastructure capacity: Internet users per 100 persons; computers per 100 persons; main telephone lines per 100 persons; mobile phones per 100 persons; and broadband per 100 persons. See United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, United Nations, New York.
4. United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, United Nations, New York, Table 1, E-Government Readiness Index 2008.
5. The OECD e-government country study of Hungary shows that the Hungarian government recognises the correlation between the penetration of an affordable broadband infrastructure and the provision of advanced online services. The Hungarian National Broadband Strategy had the aim of providing broadband services to over 80% of the population and to over 90% of small and medium-sized enterprises by the end of 2006. See Page 68 of OECD (2007), *OECD e-Government Studies: Hungary*, OECD, Paris.

6. Both the United Nations and the European Union use a stage model as described here. The United Nations describes "stages of e-government evolution" (Stage I: emerging; Stage II: enhanced; Stage III: interactive; Stage IV: transactional; and Stage V: connected) in its Web Measure Index while the European Union focus on "sophistication of online services" (Level 1: information; Level 2: one-way interaction; Level 3: two-way interaction; Level 4: transaction; Level 5: personalisation). The OECD uses the Nolan+ model to describe information flow complexity in the different development stages of public organisations (Stage 1: control; Stage 2: organisational maturity; Stage 3: sectoral networking; Stage 4: national information infrastructure; Stage 5: Information Society). See also: OECD (2005), *OECD e-Government Studies: e-Government for Better Government*, OECD, Paris, Figure 5.1, p. 136.

7. The E-Participation Index assesses the governmental implementation of products and services concerning e-information, e-consultation, and e-decision making. See further in: United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, United Nations, New York, p. 58, Table 8, E-Government Readiness Index 2008.

8. According to OECD (2009), *Focus on Citizens: Public Engagement for Better Policy and Services*, OECD, Paris, the goals stated by governments for open and inclusive policy making are in essence equivalent to the challenges to improving user take-up (see Figures 1.2 and 1.3 on page 28).

9. The data tracking of the use of e-government services is not based on the same e-government services tracked for online sophistication (see also this chapter's Note 6). The purpose of showing the figures with the data together is to emphasise the significant difference between the provision of (selected major) e-government services and the take-up of e-government services in general. The data on use by citizens should be understood as the percentage of individuals (aged 16-74) using the Internet to interact with public authorities (*i.e.* having used the Internet for one or more of the following activities: "obtaining information from public authorities' websites", "downloading official forms", "sending filled in forms"). The data on use by enterprises should be understood as the percentage of enterprises using the Internet to interact with public authorities (*i.e.* obtaining information, downloading forms, filling-in web forms, full electronic case handling).

10. One widely used indicator of e-government services sophistication is a four-stage model that examines the extent to which government organisations have moved beyond simple provision of information via their websites (Stage 1) towards enabling online interaction (Stage 2), then conducting electronic transactions around public services (Stage 3), and finally implementing significant ICT-enabled transformation of how their services are organised and delivered both on and off line (Stage 4).

11. The twelve public services for citizens tracked by the European Union are: income taxes, job search services, social security benefits, personal documents (passports, driver's licences), car registration, application for building permission, declaration to police, public libraries, certificates, enrolment in higher education, announcement of moving, and health-related services. The eight public services for businesses tracked by the European Union are: social contributions for employees, corporate tax, value-added tax (VAT), registration of a new company, submission of data to statistical offices, customs declaration, environment-related permits, and public procurement.

12. Denmark has required electronic reporting to public authorities in a number of areas. An example is the mandatory reporting of pollution data according to the Government Order No. 132 of 07/02/2007 (see *https://www.retsinformation.dk/Forms/R0710.aspx?id=13088*, accessed 19 August 2008). Hungary has obligated an increasing number of larger enterprises to submit their tax return declarations on line according to OECD (2007), *OECD e-Government Studies: Hungary*, OECD, Paris, Box 6.5, p. 151. For Spain, the main services provided for large and medium-sized enterprises (with more than ten employees) are fully digitised and are mandatory to use. The following e-government services has been progressively decreed as mandatory to use for those enterprises: social contribution for employees (2003), declaration and notification of corporate taxes, value-added tax (VAT), and customs declarations (2006-2008). The legal framework related to the service on social contributions for employees can be found on the website of the Spanish Ministry of Labour and Immigration: *www.seg-social.es/Internet_1/Normativa/NormasdelSistemaRed/index.htm*, accessed 25 March 2009. (The decision was taken on 20 April 2002 with effect from 1 July 2003, *www.seg-social.es/Internet_1/Normativa/NormasdelSistemaRed/ index.htm?ssUserText=119785&dDocName=095283*, accessed 25 March 2009.) Further information on the legislative framework on the tax related services can be found on the Spanish Tax Agency's website: *www.aeat.es/wps/portal/Navegacion2IyD?channel=2eb821a53a335010VgnVCM100000d7005a80_&ver=L&site=56d8237c0bc1ff00VgnVCM100000d7005a80_&idioma=es_ES&menu=1&img=8*, accessed 2 April 2009.

13. The OECD e-government reviews conducted to date have shown that the OECD countries which have undergone peer reviews see a number of challenges. Their focus until now has been to put services on line and make the back office more efficient and effective to allow for the development of seamless e-government services, allowing users the possibility of "one-stop-shopping". *See Chapter 1, Note 2 for a list of all e-government country study reports.*

14. The 2007 Canada Country Report to the International Council for IT in Government Administration (ICA) gives an overview description of the early focus of Canada on a citizen-centric approach to service transformation by adopting tools like Citizens First (a bi-annual survey on citizens expectations and satisfaction with public services; see *www.iccs-isac.org/eng/cf-about.htm*, accessed 29 May 2008) and the use of the Common Measurements Tool (a client satisfaction survey instrument; see *www.iccs-isac.org/eng/cmt-about.htm*, accessed 29 May 2008) to track performance of service delivery across the public sector.

15. The eUser study is funded by the European Commission's IST (Information Society Technology) programme. eUSER is a major research and support project which has set out to provide solid evidence as to users' real needs regarding e-government, e-health and e-learning offers, as well as providing data about their attitudes and the uptake levels of current public online services. The project supports the IST programme to achieve its key objectives of putting users and their needs at the centre of IST developments. It provides empirical information on key domains of e-government services – e-government, e-health, e-learning – identified as priorities by the European Council, and assesses the demand/supply match in these fields. See *www.euser-eu.org*, accessed 5 October 2008.

16. European Commission (2007), *i2010 Annual Information Society Report 2007, Commission Staff Working paper Volume 1*, COM(2007)146, SEC(2007) 395, Brussels, 30.3.2007.

17. Graafland-Essers, Irma and Emile Ettedgui, (2003), "Benchmarking e-Government in Europe and the US", report funded by the European Union under the SIBIS – Statistical Indicators Benchmarking the Information Society programme IST – 2000-26276, RAND Europe, *www.rand.org/pubs/monograph_reports/2005/MR1733.pdf*, accessed 28 August 2008.

18. Schedler, Kuno and Lukas Summermatter (2003), "E-Government: What Countries Do and Why: A European Perspective", *Journal of Political Marketing,* Vol. 2, Issue 3/4, 6 January, *www.haworthpress.com/store/ArticleAbstract.asp?sid=LG22P03XXLHB9GH3CFCWCK541FVS6AV1&ID=38090*, accessed 5 September 2008.

19. Millard, J. (2006), *Evidence-based Support for the Design and Delivery of User-centred Online Public Services*, eGovernment report, European Commission IST 6th Framework IST Programme, *www.euser-eu.org*, accessed 5 September 2008.

20. Australian Government Information Management Office (AGIMO) (December 2008), *Interacting with Government.Australians' Use of and Satisfaction with e-Government Services*, AGIMO, Department of Finance and Deregulation, Australia, *www.finance.gov.au/publications/ interacting-with-government/docs/interacting-with-government-report.pdf*, accessed 3 January 2009. Page 58 ff.

21. European Commission (2003), "Top of the Web: Survey on Quality and Usage of Public E-services", prepared by PLS Rambøll Management, Denmark, November, *http://209.85.135.104/search?q=cache:hulGq5fefrkJ:ec.europa.eu/information_society/eeurope/2005/doc/all_about/quality_usage_final_report_2003.pdf+%22Top+of+the+Web%22+European+Commission&hl=fr&ct=clnk&cd=3&gl=fr*, accessed 28 August 2008.

22. European Commission (2004), "Top of the Web: User Satisfaction and Usage – Survey of eGovernment Services", prepared by PLS Rambøll Management, December, *www.eworx.gr/resources/top_of_the_web_report_2004.pdf*.

23. UK Presidency of the EU (2005), "eAccessibility of Public Sector Services in the European Union: Executive Briefing", published under the auspices of the European Public Administrations Network (EUPAN), November, *http://archive.cabinetoffice.gov.uk/e-government/docs/eu_accessibility/pdf/ eaccessibility(eu)_report.pdf*, accessed 28 August 2008.

Chapter 3

Country Approaches to Increasing User Take-up

Governments have chosen different approaches to increase user take-up of e-government services. Experience among OECD countries shows that the choice of approach depends on political priorities and organisational considerations, for example as part of public sector reform efforts. These considerations are often addressed through the reorganisation of responsibilities within the public sector and the redesign of internal processes and procedures to achieve improved coherence and simplification. The balance between (public sector) internal and organisational considerations, and external outcome-driven considerations are reflected in the variety of approaches seen across OECD countries.

The identified types of approaches identified are: an organisational and administrative simplification approach; a situation-bound approach; a participatory and inclusive approach; and a marketing and channel management approach. A number of countries are focusing on public sector efficiency and effectiveness issues through an organisational and administrative simplification approach which include reconsidering responsibilities for service delivery, simplification of access through portal organisation, and through administrative simplification. Other countries are focusing on creating services which address specific situations of users through tailor-made services or services organised by life events. Others again focus on enhancing participation and inclusiveness in service development using inclusive service delivery approaches or creating ICT platforms to support increased consultation and participation. Most countries have recognised the importance of improving marketing of services and the value of having a channel management strategy for better service delivery.

Governments have chosen different approaches to increase user take-up of e-government services. The choice of approach is often dependant on national political priorities and agendas which address specific challenges in specific user segments. Looking at e-government strategies in different OECD countries shows that those approaches vary depending on whether there is an immediate national political focus on, for example, improving accessibility for disabled persons,[1] whether a government wants to improve the business climate in order to increase global competitiveness,[2] and whether the competencies and skills shortages within the ICT sector call for an increased focus on education and training.[3]

Experience among OECD countries also shows that the choice of approach may be defined by organisational considerations – for example, as a result of a political wish to simplify access to the public sector and its services in general, as part of public sector reform efforts. These considerations are often addressed through the reorganisation of responsibilities within the public sector and the redesign of internal processes and procedures to achieve improved coherence and simplification. The balance between the public sector's internal and organisational considerations, and external outcome-driven considerations are reflected in the variety of approaches seen across OECD countries.

The country approaches described in this chapter can be categorised roughly into four general types, all with the aim of increasing user take-up (Table 5.1).

The overview of the different types of approach shown in Table 3.1 is a categorisation of exemplary approaches based on different perspectives to

Table 3.1. **Types of country approaches to increasing user take-up**

Type of approach	Focus
Organisational and administrative simplification	This approach is characterised by a focus on making the organisation of e-government services simple and transparent. The focus is to give the user a "one-door-entry" to the public sector, and to ensure that services are functioning under a simple legal framework. Examples include portals and reduction of administrative burdens.
Situation-bound	A situation-bound approach is characterised by a focus on addressing typical life-event situations of users, thus meeting users with targeted solutions in typical situations at specific points in their daily lives. Examples include addressing the needs of physically disabled persons for different types of help or student needs for study grants.
Participatory and inclusive	A participatory and inclusive approach is characterised by a focus on motivating users to engage and influence government actions – thus making it attractive and relevant for users to use e-government services. Examples include portals for public consultations or public ICT centres in less populated areas with a difficult socio-economic context.
Marketing and channel management	A marketing and channel management approach is characterised by focusing on marketing e-government services and their advantages, often in close connection with channel management.

e-government development. However, a country does not choose one single approach, but more often a blend of different approaches (depending on its specific national challenges). This chapter will take a closer look at each of the different types of approaches through selected good practice descriptions and their impact on user take-up.

Organisational and administrative simplification

The organisational and administrative simplification approach is used by a number of countries mainly to address public sector internal efficiency and effectiveness issues which have a significant impact on outcomes for users. The approach often addresses issues of simplification of competences between authorities, across sectors, and across levels of government. All governments are aware of the significant challenges that lie in addressing these barriers, which often involves sensitive political discussions on how to balance power between a central/federal level, and regional and local levels of government.

Responsibilities for service delivery

The question regarding who is responsible for service delivery is addressed by a number of countries. The argument is often made that responsibility and delivery of services should always be made as close to the users as possible. For citizens, services are often delivered at the local government level, and thus e-government services should also be delivered by the local government. Using ICT in service delivery does, however, question why this argument should still be valid, as ICT-enabling services do create the possibility for centralisation and standardisation, as well as the possibility to decentralise service delivery. What is often overlooked in this discussion is that technology is able to support any political decisions and that the need to see service delivery in a whole-of-public-sector perspective is perhaps even more important now with the multitude of existent service delivery possibilities. The focus on responsibilities for service delivery is therefore mostly a political discussion rather than one based on administrative or technological needs.

One emerging factor for weaker take-up in citizen services seems to be the distribution of responsibilities across vertical and horizontal lines. This perspective is seen in some of the more significant and deep public sector transformation efforts taken by OECD countries. Denmark is a case in point, with its public sector structural reform and its impact on the division of work between the central government and local governments, and the creation of local shared service centres (Box 3.1). Another example is Portugal with its public sector transformation initiative – the so-called Simplex programmes –

Box 3.1. **Denmark: Empowering the local level to deliver better services – local service centres**

Given that the majority of government service delivery occurs at the local government level in Denmark, perhaps the most significant user-focused step currently being taken is the proposed establishment, as part of implementation of the Structural Reform, of "local service centres" under the authority of each municipality. The logic is that the public sector should be as accessible as possible and users of government services should be able to find services in one place, regardless of which public authority or administration has final authority. These Local Service Centres are intended to increasingly become the physical front door to state, regional and municipal services – another reflection of the general Danish trend to bring government closer to people and make government services more user-focused. The functioning of the new local service centres will be analogous to that of an Internet portal, and will depend on e-government for their implementation.

Source: OECD (2006), *OECD e-Government Studies: Denmark*, OECD, Paris, Chapter 5.

which addresses a number of cross-cutting issues regarding the performance of the public sector as a whole (Box 3.2). Italy launched in November 2008 a project creating service desks for public services at existing networks of public or private service providers, *e.g.* post offices, tobacco shops, banks, pharmacies, etc. creating the possibility of competitive or complementary service provision (Box 3.3).

Portals

Creating portals for citizens and businesses have proven to be an effective approach to increasing user take-up. By simplifying users' efforts to find relevant services within the public sector, several OECD countries have succeeded in increasing user awareness and use of e-government services. Simplifying marketing to users and developing fully integrated services by focusing on user needs are both important to governments in their efforts to increase user take-up.

There are many examples of such practices in OECD countries, including:

- **Canada: Service Canada –** *www.servicecanada.gc.ca* – serves as a one-stop-shop for public services (Box 1.2).
- **Denmark: the Danish Citizens' Portal –** *borger.dk* – is the main port of entry to public services online for citizens in Denmark (Box 3.4).
- **Hungary: the Government Portal –** *www.magyarorszag.hu* – launched in 2003 and targets both citizens and businesses (Box 3.5).

Box 3.2. **Portugal: Creating coherent service delivery through simplification**

In focusing on meeting the goals of the European Union's Lisbon Agenda on economic growth and job creation, Portugal has decided to create an attractive business climate by significantly improving public sector performance. Since 2006, with high political priority, attention, and results, Portugal has been implementing a series of extensive and ambitious integrated administrative simplification and e-government programmes: the Simplex programmes. These programmes – unique among OECD countries and attracting significant public attention in Portugal – aim at improving the efficiency and effectiveness of public service delivery to citizens and businesses as well as improving competitiveness through better regulatory frameworks. Other far-reaching reform programmes also aim at transforming the public sector. These efforts, which are well under way, will benefit from high-level attention to ensure sustainability and continuity, not just at the central government level but also among regions and municipalities.

Since there are many contacts between the public sector and its users at regional and local levels, it is important that simplification efforts reach those levels and cover all jurisdictions. The Simplex programmes cover central government only. Municipalities and autonomous regions are not formally obliged to implement the programmes. Some Simplex initiatives affect municipalities and some municipalities are engaged in simplification initiatives of their own. The two autonomous regions (Azores and Madeira) have their own programmes for administrative simplification and e-government that are similar to the central government's Simplex programmes.

Source: OECD (2008), *Making Life Easy for Citizens and Businesses in Portugal. Administrative Simplification and e-Government*, OECD, Paris.

Box 3.3. **Italy: "Reti Amiche" – the "friendly networks" of service providers**

Italy launched the project "Reti Amiche" – the "friendly networks" – as a backbone for utilising existing service delivery channels in the public and private sectors to give the public easier access to public services. The idea is to involve existing service providers in the public and private sector as service desks for citizens, such as post offices, tobacco shops, banks, pharmacies, police stations, train stations, and distribution centres (*Grande Distribuzione*).

The purpose of involving existing service providers is to achieve a simplified service administration, reduce service delivery time, ensure maximum access to services to the whole population, and to reduce the necessity of going to public offices. At the same time, by involving the private sector (*e.g.* tobacco shops and pharmacies) as service distribution points, utilising existing service provision networks, it will be possible to introduce competition for public service delivery. With 13 893 post offices and more than 20 000 tobacco shops (members of the Italian federation of tobacco shops), the concept could ensure that citizens will have access to a broad range of public services locally.

Source: Presentation for the Council of Ministers by the Minister for Public Administration and Innovation, 2008. See: *www.governo.it/GovernoInforma/Dossier/reti_amiche/Reti_Amiche.pdf*, accessed 9 February 2009.

Box 3.4. **Denmark: The Danish Citizens' Portal – *borger.dk***

The Danish citizens' portal – *borger.dk* – was launched in 2007 and is an online site that citizens use to access the public sector and its e-government services. It was developed by all levels of government (central, regions, and municipal). Use of the portal by citizens has been significantly positive: it has 100 000 visits per week, more than a 40% increase from the previous year. A user satisfaction survey shows that 93% of the users were satisfied with the services received. The website has also been awarded top marks in user-friendliness.

Borger.dk is a central instrument of the government's objective to improve public online services and thus to digitise all relevant communication between the citizen and the public sector by 2012. The portal is the main online service point for citizens with public authorities on the Internet. Borger.dk deals with public authorities, legal matters and topics with previously prepared texts and news, and with digital self-service in order to advance the digitisation of citizen services. As well as providing a gateway to online services, the portal also offers services in e-democracy, *e.g.* the new version of the online discussion facility *danmarksdebatten*, which also includes a voting facility.

Borger.dk was developed in two stages. The period 2006 to 2008 saw the inception and development of the current portal. This was a "citizens' information guide" to the public sector. The purpose of the guide was to make it easy for the citizen to find information and answers to their questions on issues relating to the public sector, whether it was related to legislations, regulations, rights, duties, facts, or digital self-service. The period 2008 to 2012 will see the development and release of a second, more advanced, version of the portal which will use digital signatures to offer personalised services to citizens. There will be a "My Page" functionality which will make it possible for citizens to find and put all their personal data in relation to the public sector in one personal "online drawer". "My Page" was launched in its first version in 2008.

The project can be described as "citizen centric" in several ways. It is based on the evidence generated by recent research that "seven out of ten Danes wish to use the digital media more in their dialogue with the public (sector)." This research, however, has also shown that citizens are not necessarily interested in who provides a public service, and that the public sector has to provide one entrance to online services and make these services easier to use. The project was therefore grounded in a clear idea of what the demand for online services looked like.

Furthermore, a call centre has been set up to help citizens with problems they face using the portal.

Source: Flotte resultater for borger.dk (Excellent results for borger.dk – news feed on the website of the Danish National IT and Telecom Agency), 21 February 2008, *www.itst.dk/nyheder/nyhedsarkiv/2008/flotte-resultater-for-borger.dk*, accessed 3 March 2008, and additional information received from the Danish Ministry of Finance, 2008.

Box 3.5. **Hungary: The Government Portal – *www.magyarorszag.hu***

Hungary's e-government portal was launched in September 2003 to replace the former *eKormanyzat.hu* (eGovernment.hu). The aim was to build a single entry online service, where citizens and businesses could administer their central or local government-related affairs. This vision of delivering information and services corresponds to the concept of "one-stop shops" described in the E-Government Strategy and Action Plan 2005.

The portal has been extended to include a number of services and functions, such as the Virtual Document Office (*Virtuális Okmányiroda – XR*),[1] which provides an opportunity to fix an appointment on line and access to initiate the case-handling in certain situations such as change of address, private entrepreneur licenses, birth certificates, driver's licenses, parking passes and car registrations.

The Government Portal now serves as the electronic information gateway to the central government, operating as both an institutional portal and a service platform. The Governmental Portal's information services offer an opportunity to improve communication between public authorities, citizens and businesses. It is also used as an online forum, organised on a regular basis with the participation of public figures, and has become very popular for public debate. Today, all central government bodies have a presence on the Internet. As a result of the website standardisation project initiated in 2004, the Government Portal, in addition to offering a collection of government Internet addresses, now directly accesses these 46 government websites.

The portal features explanations related to administrative transactions (procedural steps, documentation requirements, etc.) and the forms required for this process are available on line and may be printed or filled out and forwarded electronically. As of 31 May 2006, descriptions of more than 1 000 public administration cases were found on the portal and more than 2 000 types of documents were downloadable. The portal has significantly shortened the time required for administrative transactions, allowing users to book appointments through the Internet for a growing number of records offices.

As opposed to the three services provided through the portal in 2003 (searching property, companies and vehicles), there were 264 information or search functions related to public services available in May 2006, including change-of-address notifications, and driving license and birth certificate requests.

Since December 2005, the searchable Collection of Effective Laws has been a popular service on the portal. Since May 2006, portal visitors have been able to fix appointments to visit document offices, and about 400 administrative cases can be settled electronically. The portal is also an important platform of e-democracy. In the framework of its online forum, high-ranking government officials are able to answer citizen questions in real time.

1. Also called Internet Public Administration Service System or Virtual Records Office.

Source: OECD (2007), *OECD e-Government Studies: Hungary*, OECD, Paris, Box 5.2, p. 131. Prime Minister's Office, Hungary, 2008.

- **Mexico: the Mexican Citizen Portal** – *www.gob.mx* – is a part of the Mexican Government Portal and gives citizens a single entry to e-government services on line (Box 3.6).

Box 3.6. **Mexico: The Mexican Citizen Portal and the Stockholm Challenge**

In 2004, the Mexican Citizen Portal of the Federal Government (*Portal Ciudadano del Gobierno Federal, www.gob.mx*) won the e-Government Award of the Stockholm Challenge.

The Stockholm Challenge initiative was established by Sweden to challenge other European cities in ten information society application areas during its accession period to the European Union in 1993. The goal of this challenge was to find the winner of each area to share best practices. The continuing success of the exercise led it to include projects from around the world. The Stockholm Challenge received 900 entries from 107 countries in 2004, and an international jury composed of 27 experts from academia, business, and the public sector selected 10 winners from 103 finalists. The Mexican Citizen Portal of the Federal Government won the 2003-04 Stockholm Challenge Award for e-Government and the e-Mexico portal was also a finalist.

The Citizen Portal of the Federal Government is a government-wide portal that organises information and services around citizens' needs in a thematic, rather than institutional, manner. The portal concentrates more than 1 500 information and transaction sources from over 100 government institutions "24 hours a day, 7 days a week, 365 days a year". The portal is the result of the digital government item in the Good Government Agenda, and is also part of the e-Mexico system. The portal works as the single entry point for government services and acts as a content supplier for the e-Mexico Portal. The Citizen Portal uses a customer relationship management strategy to better present its content according to users' needs. Finally, the portal uses a technological platform that enables interoperability and standardisation across different government offices.

From the end of 2008 to early 2009, the portal will be improved. Gob.mx is currently conducting research into the administrative processes of government, the technology used, and user needs. Citizens' feedback has hardly been used in the design of the updating strategies to achieve a standardised use of technology in government administration. To accomplish this objective, the project activities include diffusion and training of civil servants in the use of technologies currently used in government and the promotion of the migration process. Finally, the project goal is to continuously increase the number of transactional services and reinforce customer resource management and multi-channel strategy and move toward the use of mobile technology in service delivery – also known as mobile government (m-government).

Source: OECD (2005), *OECD e-Government Studies. Mexico*, OECD, Paris, Box 6.1, p. 119, and the Mexican Ministry of Public Administration, 2008.

- **United Kingdom: directgov** – *www.direct.gov.uk* – has for some years offered a single point of entry to a number of online public services for citizens (Box 3.7).

Box 3.7. **United Kingdom: *Directgov***

The United Kingdom has suffered from low adoption of, and satisfaction with, e-government. In a 2007 citizen survey, 41% of UK respondents reported that they had already used e-government. Only 19%, however, considered their government to be doing either a "good" or "excellent" job in this area.

Directgov brings public services together all in one place from across 11 government departments. A wide range of information is available on the site – from how to find a local childminder to what to do when buying a property. Customers can also access services, such as searching for a course or taking a mock theory driving test. Transactions such as applying for car tax or planning a journey on foot, by car or by public transport are also on the site.

Since its launch in 2004, *Directgov* has constantly evolved to reflect the changing demands of citizens who wish to efficiently manage their lives electronically. The Directgov website has approximately two million visits per month. The website allows users to select from the top ten services recently accessed by other users, providing a quick and easy way for the page to present information that is in line with users' shifting needs. The Directgov portal (*www.direct.gov.uk*) is an evidence-based and user-tested solution to driving greater uptake of electronic transactions. It incorporates:

- a clear and compelling value proposition to users that can be effectively marketed and without which the UK government would fail to attract the wide user base which its departments need if they are to meet their targets;
- a capacity to manage service delivery on an integrated basis.

Currently, each government service user is generally "owned" by the department providing that service. The experience a user has with government can be disjointed, frustrating and confusing – in other words, agency-focused instead of user-focused e-government.

By implementing the Directgov model, a user acquired by a department is also acquired for the whole of government, and opportunities to "cross-sell" services are maximised. Furthermore, a sustained dialogue between government and the user is enabled, thus improving users' perceptions of service delivery as significantly more user-focused.

Clusters of government services and transactions targeted at specific user groups have been incrementally built and developed using "department store" and "franchise" models, allowing structured user-focused packages of services, manageable in size. This provides Directgov with three levels of service provision:

- **Top or entry level:** A first entry point for all government Internet and digital TV (DiTV) services (incorporating and replacing the UK Online website, and earlier DiTV services) with a suite of common services and standards, providing a consistent user experience.
- **Service level:** Key services delivered as cross-departmental, user-segmented, service packages.

- **United States: USA.gov** – *www.usa.gov* – is a federal portal to government information and more than 100 e-government services from federal, state, local, and tribal government levels (Box 3.8).

Box 3.8. **United States: The federal portal – *USA.gov***

The first official United States portal – *FirstGov.gov* – was launched in September 2000. In 2007, its name was changed to USA.gov and covers in 2009 more than 100 different e-government services provided by federal government to citizens, businesses and non-for-profit organisations, government employees, and visitors to the United States. It also provides links to state and local government websites where state and local government services can be found and accessed.

The portal provides access to a broad range of public information and services covering: government benefits, grants, and financial aid; consumer guides and protection; defense and international relations; environment, energy, and agriculture; family, home, and community; health and nutrition; history, arts and culture; jobs, education, and voluntarism; money and taxes; public safety and law; reference center and general government; science and technology; travel, transportation, and recreation; and voting and elections.

USA.gov is intended to make access to US government information and services easy and is also seen as the catalyst for a growing electronic government.

The portal participates in an online customer satisfaction survey using the American Customer Satisfaction Index (ACSI). The survey randomly selects visitors to the site and asks them a series of questions about their online experience. The survey results provides the portal with information about how it measures up against some of the best commercial and government websites, and helps USA.gov to improve the website for its users.

Source: The federal portal *USA.gov*, *www.usa.gov,* accessed 8 March 2009.

These case examples provide an insight into a few country experiences and show that developing and maintaining portals improves user take-up among targeted user groups. Several other countries are following this strategy to make the promotion and marketing of e-government services more effective so that services are easier and simpler to find for users.

Administrative simplification

Achieving administrative burden reductions through simplification is high on the political agenda across OECD countries. In the European Union, an action plan for reducing by 2012 administrative burden by 25% was adopted in 2007. It calls for the use of ICT, where possible, as a means to achieve the goal and as a contribution to the overall improvement of the Union's global competitiveness.[4]

OECD country experiences show that administrative simplification is closely tied to the effective use of ICT as a tool to increase simplicity and user-friendliness in communication with authorities in the public sector. Country examples show that reducing administrative burdens through simplification has become an integrated part of e-government development. Administrative simplification is thus one of the ways to ensure an increase in user take-up:

- **Belgium** has successfully implemented an integrated back-office for the social security sector, resulting in significant administrative burden reductions for both citizens and businesses (Box 3.9).
- **Germany** won the European Union *e-Government Award 2007* in the category "Effective and efficient administration" for successfully implementing the German Administration eServices Directory and making it possible to simplify administrative procedures across the public sector (Box 3.10).

Box 3.9. **Belgium: Transforming the social security sector**

Across OECD countries, the problem with social service delivery is low take-up. The Crossroads Bank for Social Security (CBSS) network in Belgium introduced a proactive approach by improving social security systems, speeding services and increasing efficiency while reducing fraud and error. For example, energy authorities use income data in the CBSS system to determine if users are eligible for any reductions in their bills; and transportation agencies can determine who has the right to discounted fares.

The social security system in Belgium is complex, involving more than 2 000 offices that deal with collection of contributions, delivery of benefits (such as unemployment, holiday pay, healthcare reimbursement, old age pensions) and determination of supplemental benefits. These institutions are spread across all governments – federal, community, regional, provincial and municipal.

The CBSS links these agencies through a network with a secure connection utilising unique identification keys for citizens. Using a citizen identification number, CBSS facilitates information storage and retrieval by government agencies, allowing governments to easily access citizen data and simplifying citizen interaction with government.

This outreach of government services is particularly important and helpful for disenfranchised individuals, such as the undereducated, who may not be able to fill out complex forms, or people who distrust government in general. These activities greatly increase user take-up of e-government services – and also help government to better realise its service mission to citizens.

Source: OECD (2008), *OECD e-Government Studies: Belgium*, OECD, Paris.

Box 3.10. **Germany: German Administration eServices Directory (DVDV)**

At the Lisbon Ministerial Conference 2007, the German DVDV (*Deutsches Verwaltungsdiensteverzeichnis* – German Administration eServices Directory) won the *eGovernment Award 2007* in the category "Effective and efficient administration". The DVDV lists electronically available e-government services and fulfils an important need in terms of creating a secure and reliable communication infrastructure, based exclusively on open Internet protocols and allowing cross-organisational, paperless processes.

In operation since January 2007, it has helped more than 5 200 German civil registration agencies to save more than EUR 1 million per month. Worldwide, it is one of the first and largest standardised Service Oriented Architecture (SOA) implementations in the government area, and was made possible through unique co-operation between various levels of government and sectors in the Federal Republic of Germany.

The DVDV's range of applicability is not limited to civil registration but is open to any kind of machine-machine-communication with and between public administrations in Germany (G2B, G2G). Besides civil registration communication, the DVDV also supports processes, *e.g.* in tax administration and in the area of justice.

Source: www.epractice.eu/cases/dvdv, accessed 4 October 2008.

- **The Netherlands** has for several years focused on reducing administrative burdens through a whole-of-government approach. E-Government has become an integrated part of the Dutch approach where simplification depends on an effective e-government back-office (Box 3.11).
- **Mexico** aims at creating transparency and integrity in government work through the use of e-government. Even though digitisation has been beneficial with regard to efficiency and effectiveness, the regulatory framework is still an area of focus for improvement (Box 3.12).
- **Spain** has approved an administrative simplification plan with the goal of reducing by 2015 the administrative burdens for business by 25%. This plan is closely linked with the e-government policies, as the use of ICT is one of the main tools to achieve this goal.[5]
- **Turkey** has succeeded in implementing a highly successful e-declaration project in the Social Security Organisation, with significant efficiency gains as a result and considerable benefits for different users of social security (Box 3.13).

Box 3.11. **The Netherlands: Reducing administrative burden by 25%**

Internationally, the Netherlands is in the forefront for reducing administrative burden, which has become a major justification for e-government development. Administrative burden in the Netherlands is defined as the costs incurred by companies and citizens in order to comply with information obligations resulting from laws and government regulation. The target is a 25% cut during 2002-07. E-Government is meant to reduce administrative burden by:

- preparing the groundwork through an offer of generic solutions such as electronic authentication, uniform numbers for citizens and companies, and key registers;
- allowing mapping and analysis of the information flow between government organisations, citizens and companies;
- providing a basic infrastructure and facilities such as interfacing, standardisation and support services.

Source: OECD (2007), *OECD e-Government Studies: Netherlands*, OECD, Paris, p. 246.

Box 3.12. **Mexico: Increasing transparency and accountability with e-government**

Transparency and accountability are top political priorities in Mexico and e-government has been repeatedly used as a weapon in the fight against corruption. Transparency and accountability are practically universal objectives behind e-government in Mexico, with 96% of organisations considering it a "very important" or "important" objective. The examples of Compranet and IMSS (*Instituto Mexican del Seguro Social*) show the extent to which the fight against corruption has, and will continue to have, a strong impact on the implementation of e-government in individual organisations in Mexico.

Compranet is an Internet-based government procurement system introduced in 1996 by the General Comptroller (*Secretaría de la Contraloría y Desarrollo Administrativo* – SECODAM, the actual Ministry of Public Administration). This system contains the legal framework, bidding opportunities, statistics, notifications and all other relevant information for government procurement activities. Its introduction greatly enhanced transparency in public procurement procedures and increased communication between government and citizens. Compranet is one of the better known e-government services in Mexico – and two alleged corruption scandals that were unmasked through Compranet (in 2001 and 2003)

Box 3.12. **Mexico: Increasing transparency and accountability with e-government** *(cont.)*

contributed to the general understanding of how e-government can improve transparency and accountability. However, in spite of its initial popularity and advances, some businesses argue that the current regulatory framework of public sector leasing and public works services still leaves room for government officials' discretionary and interpretative powers. Compranet was a very early e-government initiative in Mexico and it is currently undergoing a revision process to be improved and modernised.

A second, more recent, case demonstrating the importance of transparency in e-government in Mexico is the purchase and expenditures portal of Social Security Institute (*Instituto Mexican del Seguro Social* – IMSS). IMSS is one of the most important government organisations making purchases in the Mexican government: it acquires over USD 3 billion worth of goods and services each year. In 2004, IMSS released its "*IMSS va a comprar, IMSS compró*" portal ("IMSS will buy, IMSS has bought") by which a list of all prospective purchases that IMSS will carry out during the year is published, as well as the terms and conditions under which all purchases were made. This practice not only opens the market to a substantial set of competitors, but also reduces corruption and in the end saves taxpayer money. IMSS' accounting information – generated by the Government Resource Planning Initiative (PREI) – will also be readily available online to the public in order to enable public scrutiny of the IMSS' spending.

Since the end of 2006, it has been a priority for the Mexican government that citizens not only have access to government information, but also to ensure that the quality of information is improved daily with the aim of having a significant impact in terms of generating social benefits. Furthermore, transparency is also a means to avoid corruption. It is therefore the aim of the government to continue a transparency-focused development due to its advantages and benefits, because it allows society to know, evaluate and demand for improvement of government actions on issues such as: public safety, education, politics, social development, decrease red take, and on the provision of public services.

It is important for Mexico to ensure an improved standardisation of access to and quality of public information as a prerequisite for its global competitiveness and for ensuring that economic development expectations are met. Transparency is therefore seen as an instrument for consolidating competitiveness, economic growth and job creation.

Source: OECD (2005), *OECD e-Government Studies: Mexico*, OECD, Paris, and the Mexican Ministry of Public Administration, 2008.

Box 3.13. **Turkey: Reducing administrative costs in the Social Security Organisation**

The Social Security Organisation (SIO) serves 41 million people, of a total population of 72 million. The agency launched the Social Security E-Declaration project on 1 May 2004. It enables employers to calculate premiums to be paid on line, to pay the premiums electronically, to monitor declared premiums to be paid and to determine payments made and outstanding debts without going to the local insurance management office and without paying fees.

The Social Security E-Declaration Project has been successful, in the sense that 800 000 firms (of 950 000 firms, or 84%) actively use the e-declaration site. It has generated major benefits for both government and businesses. Among those are: reduction of staff by 2 000, amounting to USD 650 millions in savings; more precise identification of persons entitled to receive pensions, resulting in the cancellation of 100 000 false health records with a savings of USD 133 million; and the shortening of processing time from 180-240 days to 3-5 days.

Source: OECD (2007), *OECD e-Government Studies: Turkey*, OECD, Paris, Annex G, p. 139.

These case examples show that administrative simplification is an integrated part of the countries' e-government development and that increasing user take-up through simplification will also increase the total benefits for both governments and users. Even though an approach from an administrative simplification starting point is public sector focused, the outcomes of successful simplification activities are immediately visible to both governments (improved efficiency and effectiveness in service delivery) and users (perceived performance improvement of the public sector service delivery, resulting in increased user satisfaction).

Situation-bound approaches

Situation-bound approaches are increasingly taken into consideration by governments as a way to make e-government services more relevant to different user groups. In contrast to the traditional assumption that it is the user's responsibility to find out which public authority is supposed to handle one's case, the situation-bound approach provides governments with a way to identify and analyse the typical processes and procedures a specific user group needs to follow to gain appropriate assistance. By identifying, analysing and developing e-government services to support specific user groups' needs, governments can achieve more integrated and targeted e-government solutions.

Tailor-made services

Tailor-made services are developed to better satisfy the expectations of targeted user groups with specific and identified needs. The European Union's i2010 strategy has addressed the issue of user focus and inclusiveness in e-government and has developed a number of principles for user-focused and inclusive e-government (Box 3.14). European Union member states are urged to follow these principles in developing and implementing e-government services nationally.

Box 3.14. **European Union principles for user-focused and inclusive e-government**

The European Union i2010 programme has formulated a draft set of guidelines for modernising and deploying EU policy to encourage the development of the digital economy; this includes regulatory instruments, research and partnerships with industry. The European Commission is particularly promoting user-focused, inclusive e-government. i2010 recommends that governments consider the following scenarios for the development of high-quality, efficient and effective public services for citizens and business:

- "**What's in it for me?**" It is important to be very clear and open about what citizens stand to gain if they deal with administrations electronically rather than traditionally. Is the service better? Do they save money and/or time? Do they potentially get more, or better, service? What do they miss if they do not use electronic channels?
- "**How do I know?**" If people do not learn about services and their benefits – in a form and language they can understand – they cannot take advantage of them. A recent study in Belgium highlighted better communication as the leading action to improve take-up and use of electronic services.
- "**Can I get support from my social assistant, trade union, or mutuality?**" Some people will never feel comfortable using electronic channels, regardless of technological advances. For them, effective support via an intermediary is key.
- "**I can't do that – I don't know how!**" Developing and enhancing users' skills is an empowering process in itself. However, disadvantaged and marginalised groups are often the least likely to engage with "the establishment" for structured training. Governments must consider more creative methods to enhance skills, using best practices from unstructured, informal and community learning, as well as more standard approaches.
- "**I can't use this – it doesn't make sense!**" Accessible and user-friendly interfaces, intuitive menus and well-structured content in a country's language help users to find their way through issues, even if they are complex. Accessibility standards and guidelines should be harmonised and widely implemented.

Box 3.14. **European Union principles for user-focused and inclusive e-government** *(cont.)*

- "**I need help!**" If people don't understand online instructions, they should be able to reach someone who will take the time to explain things in a friendly way by telephone.
- "**Can I trust it?**" Trust is a crucial element of the inclusive e-government approach. This includes: trust in the technology used to deal with government and trust in the government itself. Creating a broad, transparent, accessible climate of trust will encourage citizens to access and use electronic services on various topics such as education, health, commerce, transport and tourism.

The European Union principles for user focus and inclusiveness in e-government development poses a number of basic questions when developing user-focused e-government services. Even though the principles are fundamental and to large extent "common sense", they highlight that user-focused e-government development is a state of mind where user needs and approaches need to be in the forefront of design considerations, and that user focus is in essence a question of relevance and usability.[6]

OECD countries face the choice of developing target strategies, and serving specific user groups, or continuing with the "one-size-fits-all" approach. The targeting of user groups has proven to increase take-up of e-government, as different Belgian government approaches show (Box 3.15).

Box 3.15. **Belgium: Accessibility, the disabled and e-government**

There is no formal legislation in Belgium regarding web accessibility. However, a law on anti-discrimination passed in March 2003 stated that "any lack of reasonable adjustments for people with disabilities will be considered a form of discrimination." Since that time, all governments have been launching **disabled-friendly e-government initiatives.**

The federal government has awarded portals the "**Blindsurfer Label**" since 2003, designating accessibility to the portal for visually-impaired people. In Belgium, the BlindSurfer label has been proposed as the official quality mark for accessible websites.

In April 2003, the **Walloon Region launched a web accessibility strategy** (titled "BlindSurfer") for the blind and the sight-impaired, and adapted it in 2007 under the title *Anysurfer*. Anysurfer shows the region's commitment to improving accessibility and usability of e-government for all disabled Belgian citizens. In December 2003, the federal administration also received the *BlindSurfer* label for making its portal accessible to the blind and sight-impaired. The French community has also adopted the Blindsurfer approach to accessibility.

Box 3.15. **Belgium: Accessibility, the disabled and e-government** *(cont.)*

The **Flemish Region has launched the "*Surf en durf*" (Surf and dare)** campaign to promote accessibility of e-government services for disabled citizens. Furthermore, all e-government websites should be made accessible to disabled citizens by the end of 2007 as part of the "Accessible Web" project.

The ***Communit-e* application facilitates benefit application procedures for disabled persons at local governments** as applicants can be identified with the help of their eID and social data are transferred *via* the Crossroads Bank for Social Security.

Source: OECD (2008), *OECD e-Government Studies. Belgium*, OECD, Paris.

Life-event approach

Establishing service delivery processes focused on a "life-event" approach is another way to provide relevant services to specific user groups, focusing on their specific needs in phases of their lives or in specific life situations. Several OECD countries have adopted a life-event approach as a means to develop user-focused e-government services targeting specific situations in life. These approaches have shown highly successful and seem to be a very effective way to achieve high user take-up in the given target group.

- **Italy** has used a "life-event" approach to prioritise e-government development activities (Box 3.16).

Box 3.16. **Italy: A "life event" approach to service delivery**

The Italian government has used a "life-event" approach to identify which services should be given priority for e-enablement. This was done in two phases. In the first phase, a quantitative evaluation model was used to classify and rank services in terms of priority for e-enablement. A preliminary set of 80 high-priority services was identified – 40 for citizens and 40 for businesses. The second phase involved qualitative analysis of the opportunity for making these services available online. The following criteria were used in the selection process:

- frequency of use (including the population affected by the service and the number of interactions needed to provide the service);
- added value for users;
- tendency of potential service users to use the Internet;
- range of fees to be paid for the service;
- opportunities for eliminating services from the service provider which are not considered to be required by citizens (for example, certificates produced by a public administration);

Box 3.16. **Italy: A "life event" approach to service delivery** *(cont.)*

- possibility of providing the service more easily electronically (for example, payments for public utilities that can be easily executed automatically by the user's bank).

Source: De Petra, Giulio, and De Pietro, Luca (2005), *The Italian Approach to Local E-Government*. Chapter 3 of Springer (2005), *On Line Citizenship. Emerging Technologies for European Cities*, Eds. Di Maria, Eleonora, and Micelli, Stefano, United States.

- **Slovenia** has integrated a broad range of services in their e-government portal – some of those organised as life-event services (Box 3.17).
- **The United Kingdom** has put citizen centricity at the centre of their e-government development. One of the tools to analyse which processes users experience when approaching the public sector is "customer journey mapping". The tool provides an overview of a specific business process which can be used to simplify an unnecessary, complex sequence of activities (Box 3.18).
- **The United States** improves the delivery of assistance to disaster victims by providing a one-stop-portal for those affected by disasters (Box 3.19).

Box 3.17. **Slovenia: State Portal life-event organised services**

Slovenia launched its State Portal in March 2001. It was re-launched in December 2003 and modernised in May 2006. The enhanced portal supports government to citizen (G2C), government to business (G2B) and government to government (G2G) interactions and offers various services to citizens, legal persons, and public employees.

The portal provides access to the Electronic Administrative Affairs application, which supports the full electronic handling of administrative forms registered in a centrally maintained registry of procedures. The application can be used by all residents equipped with qualified digital certificates (electronic signature) valid in Slovenia.

An increasing number of e-government services have been integrated into the portal since its launch:

Period	Number of services	Number of e-government applications
June 2006	200	100
May 2007	400	200
September 2007	600	250
February 2008	700	400

Box 3.17. **Slovenia: State Portal life-event organised services** *(cont.)*

The State Portal currently includes more than 10 000 unique web pages and more than 700 life events and electronic services respectively. Users send more than 500 electronic application forms per month. Life events are managed by over 300 content editors; over 45 000 users are registered in *MyeGovernment* (a web application); and there are more than 1 million hits from visitors every month (from July 2007 onwards).

With the growth of available information and electronic services published on the e-government portal, the number of visitors has also grown:

Period	Number of users
January 2006	270 000
June 2006	885 000
July 2007	1 030 000
January 2008	1 150 000

The constant progress of the State Portal has been followed by an increasing number of users. Inevitably, every online information transaction elicits, first, technical, and later on, more complex, content-based questions. This is why a special e-mail address (e-uprava@gov.si) was created to respond to questions and comments from users. Content editors are especially dedicated to the task of providing answers, which are written directly in the application itself and sent to the user via e-mail:

1. The user sends a question via e-mail to one of the following addresses: e-uprava@gov.si, inspekcija.mju@gov.si or kids@gov.si. The sector for contacts with users at the Ministry of Public Administration is in charge of managing the e-mail accounts.
2. The user poses a question using a specially designed e-form (that is found within every electronic service or life event) published on the State Portal. The answers are provided by content editors, who are in charge of managing specific content (specific electronic service or life event) on the State Portal.
3. The users call a special phone number and poses his/her question. The service is organised on three levels.

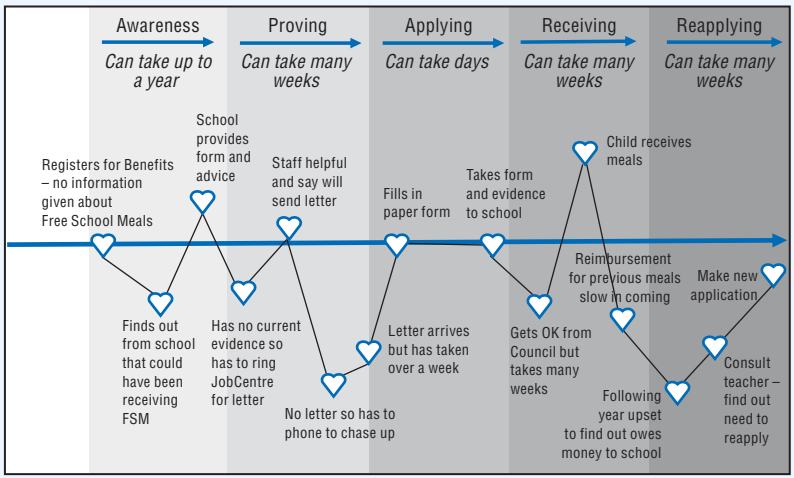
Source: Slovenian Ministry of Public Administration, 2008.

Box 3.18. **United Kingdom: Customer journey mapping – transforming Free School Meals**

The United Kingdom has set up a Customer Insight Forum. The Forum's task is to become an advocate across departments for the role and value of customer insight, by promoting best practice and knowledge, and by championing examples of customer insight in action, making a difference to both service-design processes and outcomes.

One of the tools for building customer insight is "customer journey mapping". An example of the application of this tool is found in "Free School Meals".

Many parents/carers do not apply, or simply abandon their applications to Free School Meals due to lack of awareness and/or previous experience and confusion given the complexity of the process (illustrated in the customer journey mapping below).



However, there is an opportunity to transform Free School Meal service delivery by joining up back-office processes, creating an online application and making the whole experience for parents/carers effortless. This would encourage a greater take-up of Free School Meals.

Source: UK Cabinet Office (2007), Transformational Government – Our Progress in 2007: Delivering Better, More Efficient Service for Everyone, *www.cio.gov.uk/documents/annual_report2007/tg_annual_report07.pdf*, accessed 24 August 2008.

Box 3.19. **United States: Improving disaster assistance through a one-stop-portal**

The Disaster Assistance Improvement Programme (DAIP) is a federal government-wide initiative to improve the delivery of assistance to disaster victims. Through the modification of an existing e-government initiative, GovBenefits.gov, DAIP provides a one-stop-portal for those affected by disaster by providing information on programmes offering disaster assistance and a screening of benefits for which they may be eligible. After determining their eligibility, users may apply for disaster assistance benefits using a single application through the Federal Emergency Management Agency (FEMA), leading to a more simplified, streamlined process. All benefit applications are adjudicated by the appropriate agency. DAIP also allows returning users to check the status of their request for benefits available through the single application. DAIP includes member agencies that have programmes which can: provide benefits for persons in response to disasters; help facilitate the application and delivery process through validation; have other resources that may assist disaster victims; or are otherwise relevant to those who are impacted by disasters. The Disaster Benefits Portal was launched 31 December 2008.

Source: Executive Office of the President of the United States (2008), *Report to Congress on the Benefits of the President's E-Government Initiatives*, *www.whitehouse.gov/omb/egov/c-1-6-daip.html*, accessed 31 August 2008.

Participatory and inclusive approach

A participatory and inclusive approach to user take-up focuses on engaging users in the planning and developmental stages of an e-government service. This approach utilises a broad range of communication channels (electronic as well as more traditional/physical) in order to establish a dialogue with targeted user segments. The approach often goes beyond traditional consultation, and reaches out to active potential users who want to proactively influence development and decisions. The approach is often perceived as resource-consuming, but it often results in a more solid buy-in from users.

Participation and inclusiveness in service development also include paying attention to digital divide policies and prerequisites. Making it possible for all users to participate and use online services is one of the considerations covered by a participatory and inclusive approach. The approach is therefore not limited to discussions on creating a meaningful user dialogue, but also addresses basic digital divide issues regarding electronic infrastructure

penetration and access to it; socio-economic barriers; competencies and skills; etc. (See also discussion in Chapter 1).

Whether or not the approach is cost-effective depends on the quality of user engagement and whether governments see the value of applying user feedback in the planning, development, and implementation of e-government services. Given that governments wish to improve user take-up and satisfaction, this approach might, in the end, be a better investment than a non-participatory and non-inclusive approach where user inputs are not sufficiently taken into account.

Inclusive service delivery approach

An inclusive service delivery approach is about how to ensure that all users can access those services. It therefore deals with a broad range of digital divide questions (see also Chapter 2). The digital divide question is equally central for mature e-government countries (*e.g.* Denmark and the Netherlands) and e-government latecomers (such as Hungary, Mexico, and Turkey) alike. Though the digital divide question is relevant to all OECD countries, different countries are emphasising different aspects of it.

E-Government latecomers tend to focus more on access to infrastructure as well as the socio-economic and demographic barriers for affordable access. For example, Hungary (Box 3.20) and Mexico (Box 3.21) are prioritising to further develop their electronic infrastructures and are increasing user competencies and skills – to enable broad participation in the Information Society, and thus to increase the uptake of e-government services. Germany launched in 2007 a new e-government strategy – E-Government 2.0 – emphasising user-centricity and inclusiveness (Box 3.22).

Mature e-government countries tend to focus more on competencies as well as skill and motivational issues. For example, the Netherlands has a well-developed electronic infrastructure, but significant population segments still seem hesitant to engage online due to motivational factors (*e.g.* lack of understanding of the potential benefits of using ICT).[7] This trend is also present in Denmark where the motivational factor seems to be a key challenge and in need of further development.[8]

Online citizen consultation and participation approach

The online citizen consultation and participation approach is a fast-growing approach which attracts governments' attention as a way to improve citizen participation in service development and delivery. Governments looking to increase transparency and broaden citizen engagement in service delivery see the online citizen consultation and participation approach as appealing.

Box 3.20. **Hungary: Improving user take-up through digital divide policies**

Hungary has put significant effort into bridging the digital divide in recent years. Improvement has been registered by a range of different indicators, but the process of closing the digital divide gap is slow.

In Hungary, the number of households with Internet access is rather low – but many Hungarians access the Internet from the workplace, school, public libraries and Internet cafés. This is a significant factor in how the Internet is used (*e.g.* communication, downloading content, etc.) and indeed there is a qualitative difference in the experience of accessing the Internet from home or from a public space.

Only 38% of households have access to a broadband infrastructure and the rural/urban divides are significant. This applies to cable, DSL (digital subscriber line), and wireless access. In this respect the government's project on establishing a broadband infrastructure in remote areas is crucial. A penetration and uptake of mobile phones and mobile telephony may open an interesting new channel for service delivery to individuals.

Building trust in government and in the security of the e-services provided by public agencies will be important in the near future. Success in "doing business" with the government is in synergy with private e-business and will induce the development of business-to-consumer commerce as well. To this end it is necessary to:

- increase the quantity of e-government services, including the services in line with the European Union recommendations;
- increase the quality of Internet services and raise the level of consumer protection.

Source: OECD (2007), *OECD e-Government Studies. Hungary*, OECD, Paris, p. 72, and the Prime Minister's Office, 2008.

A consultative and participative approach is also a way to increase user interest in the public sector and its provision of e-government services. Integrating online consultation and participation tools in service delivery portals is a way to boost traffic and drive usage of a government portal. In the cases of Denmark and Hungary, both countries have implemented online functions for public consultation and debate.

The Danish citizens' portal, *borger.dk*, has integrated a public consultation and debate function in which official hearings take place online via the portal. In combination with the use of digital signatures, the portal also technically permits electronic voting (Box 3.23).

Box 3.21. **Mexico: Targeting the digital divide through the e-Mexico initiative**

According to the OECD e-government country study from 2005, there is a substantial digital divide in Mexico, with certain groups of people having higher rates of Internet access than others. For example, the young are more likely to have Internet access than the elderly; men have more Internet access than women; and large businesses have more Internet access than small businesses.

The Mexican Internet Association (AMIPCI) reported in 2007 that there were almost 24 million Internet users; young males were more likely to have Internet access than older males; 55% of the male population and 45% of the female population had Internet access; large businesses had more Internet access than smaller businesses; and 59% of total computers were connected to the Internet.

Of Internet users in Mexico, only 11% are over the age of 45. The largest percentage of Internet users are 13-24 years old – the age group least likely to interact with government. However, some government organisations are able to take advantage of high access rates among the young, in particular for educational services. High usage patterns among the young also suggest that the percentage of total access to the Internet could rise significantly as the population ages.

In the report 2007 of AMIPCI, of the Internet users in Mexico, only 9% were over the age of 45. The largest percentage (55%) of Internet users were 12-24 years old. Of the total Internet users, 7.6% were connected from rural zones. Finally, 68% of the Internet users had used government service over the Internet.

As a response to the digital divide challenge, the Mexican government created the e-Mexico initiative to help improve access to ICT. The government is making a considerable effort to close the digital divide by creating additional "digital community centres" across the country, particularly in remote and rural areas. These digital community centres are targeted to people, who do not have access to ICT, and they provide assisted access to the Internet as well as information on education, health, economy and government at all levels. The fact that these centres are facilitated is important, as they allow people to use the Internet regardless of their education level or local language. The e-Mexico initiative provides a large number of digital community centres: 3 200 in 2003, 7 200 in 2004 and more than 9 200 in 2007.

Source: OECD (2005), *OECD e-Government Studies. Mexico*, OECD, Paris, p. 71. See also *www.e-mexico.gob.mx/wb2/eMex/eMex_Digital_community_centers*, accessed 31 August 2008. The Mexican Ministry of Public Administration, 2008.

Box 3.22. **Germany: E-Government 2.0 – a user-centric e-government strategy**

On 13 September 2006, the German Federal Cabinet adopted the comprehensive strategy *Focused on the Future: Innovations for Administration* (*Zukunftsorientierte Verwaltung durch Innovationen*), which aims to modernise the Federal State Administration, to downsize bureaucracy and improve the quality and efficiency of public sector services. An integral part of the strategy consists of the *E-Government 2.0 Programme*. The programme has been developed in compliance with the European Union Action Plan i2010 and utilises already existing know-how on e-government, originated from the implementation of the *BundOnline 2005* and *Deutschland-Online* initiatives.

The *E-Government 2.0 Programme* has the following objectives:

- create user-centric services;
- accelerate administrative processes by 15-30% by 2010;
- reduce costs by 15% by 2010;
- develop electronic identity on the Internet;
- make communication over the Internet reliable and legal binding.

The federal government has identified four fields of action that are to be elaborated in a targeted manner by 2010 in order to promote the modernisation process in public administrations and in Germany as a business location supported by e-government:

- **portfolio:** enhancing the federal e-government services in terms of quantity and quality;
- **process chains:** establishing electronic collaboration between the public administration and the business community utilising common business process chains;
- **identification:** introducing an electronic Identity card (eID Card) and developing electronic Identification concepts;
- **communication:** development of secure communication infrastructure for citizens, businesses and public administrations.

Important projects of *E-Government 2.0* are the German eID card and de-mail (current working title: Citizens' Portals/*Bürgerportale*) which will both be delivered in 2010. The German eID card will provide functionalities in addition to the traditional functions (photo ID, identification document, and travel document) and facilitate reciprocal identification on the Internet. By utilising a chip, the card will provide an authentication functionality, applicable to both e-government and e-business transactions. *de-mail* will provide for secure delivery of electronic documents for e-business and e-government by means of an e-safe including services like proof-of-delivery

Box 3.22. **Germany: E-Government 2.0 – a user-centric e-government strategy** *(cont.)*

and the capability of providing identity data to third-party services. The *de-mail* concept will be delivered as a specification to be implemented by existing (and certified) Internet service providers and will be flanked by corresponding legislation. Because *de-mail* can be used with standard applications like web browsers and e-mail clients, it is suited particularly for the secure and reliable communication to citizens, businesses and government. The technical specification of *de-mail* is based on international standards for e-mail communication. The communication between participants of *de-mail* is transferred through mutually authenticated and encrypted channels of certified Internet service providers. Due to the technical relationship to e-mail and the decentralised operating concept, *de-mail* is also appropriate for implementation by Internet service providers with international scope.

Source: European Commission (2008), "eGovernment in Germany"*www.epractice.eu*, Brussels, accessed 4 October 2008, and the Federal Coordination and Advisory Agency, *www.kbst.bund.de*, accessed 4 October 2008.

Box 3.23. **Denmark: E-Engaging citizens in political processes**

In its modernisation programme, the government has committed to the use of ICT to underpin "creation of a more open, user-oriented and democratic administration" where both citizens and businesses have greater access to the workings of government and are able to participate in strengthened dialogue with politicians. While this commitment has not translated into any specific goals under the e-government strategy, it has nonetheless been acted on at the all-of-government level through the development of an online system for public debate. The tool is part of the Danish citizens portal *borger.dk* and was part of the 2003 *Using IT Wisely* telecommunications policy action plan. It was developed by the Danish National IT and Telecom Agency and it functions as a national "debate portal" allowing citizens, businesses, politicians and journalists to participate in debates organised by levels of government, subject, etc. The tool can handle debates at the local, regional and national levels.

Source: For further information on the Danish e-democracy activities, see: *http://e-demokrati.borger.dk/app/DDMain.external*, accessed 31 August 2008.

Germany has conducted two studies on e-participation and e-inclusion in 2007 as part of its *E-Government 2.0 strategy* covering both the federal and municipal levels. Recommendations from the study, together with the results of a broad public consultation in 2008 are anticipated to be incorporated in the federal e-government action plan (Box 3.24).

The Hungarian eGames for electronic public debate is an integrated part of Hungary's government portal and is another example of how governments are setting up electronic debates to encourage public electronic engagement (Box 3.25).

New Zealand is an example of a country where the online citizens' consultation and participation approach has been used or piloted more widely across departments and agencies in central government (Box 3.26). The government-wide use and piloting of social applications to enhance and support a more continuous dialogue with citizens is rare among OECD countries – and serves as a pioneering exercise in gauging the possible use, and effect, of Web 2.0 technologies in public administration.

Box 3.24. **Germany: User-centric approach to e-participation and e-inclusion**

In 2007 the German Ministry of the Interior – responsible for e-government on the federal level – conducted two studies on e-participation ("E-Participation – Electronic Participation of Citizens and the Business Community in E-government") and eInclusion ("E-Inclusion – Digital Integration via E-Government"). The studies presented the current status and prospects of electronic participation and inclusion in Germany and recommended actions, projects and measures for the German government's E-Government 2.0 Programme. The studies are not limited exclusively to the federal level, but also addressed the municipal level where many approaches exist which can be used to provide impetus for the federal government.

Using the instrument of online consultation (*www.e-konsultation.de*), from 4 to 30 March 2008 the Federal Ministry of the Interior gave specialists and the interested public the opportunity to evaluate and comment on selected recommendations from the studies "E-Participation" and "E-Inclusion". The recommendations of the studies as well as the result of e-consultation are integrated in the federal e-government action plan and will lead to follow-up activities.

Source: The German Federal Ministry of the Interior, 2008. See also *www.e-konsultation.de*, accessed 4 October 2008.

Box 3.25. **Hungary: eGames for public engagement**

An online forum (*Párbeszéd rovat*) coupled with the eGames (eGovernment Assessment, Measuring and Evaluation System)[1] enables online communication and interaction among citizens and between citizens and the public sector. *eGames* is a tool to improve public participation in, and discussion of, government issues.

In order to implement a well-functioning service, the following rules have been defined:

- Users cannot use a pseudonym; they must use their real names. This makes the nature of the forum clear as a form of participatory government. Every user is legally responsible for the content of his/her contributions.
- Users can assess each others' comments positively and negatively, providing a value judgment on every user's participation. The aggregated number of points therefore draws a picture of public opinion on the forum's users.
- Apart from mutual value judgments, the number of contributions to the forum topics creates a popularity index.
- Public administration officials are among the users, but they cannot attribute points to the opinions expressed.
- Any external/official moderation of contributions takes place publicly online.

eGames can be considered as a mirror of Hungarian society. Government leaders and politicians can learn from the online user chat what kind of issues are on the minds of its citizens; what the main streams of opinion on different topics are; and how opinion leaders (forum members who have been given more than the average points) assess different situations. *eGames* provides feedback to government on the judgment of their performance.

1. Hungarian Government Portal (2006), eGames, *www.magyarorszag.hu/parbeszed_egames.html*, accessed on 31 July 2006.

Source: OECD (2007), *OECD e-Government Studies. Hungary*, OECD, Paris, p. 147.

In order to ensure the engagement of the public, it is necessary to show that their contributions in a public consultation process are assessed seriously, and that suggestions, opinions, and arguments have an impact on government decisions.

Portugal has, through its public consultation of the yearly simplification programme, seen an increase in the number of contributions from citizens, businesses, and associations. In the preparation for Simplex 2007 (see also Box 3.2), an open and systematic consultation process was conducted to

Box 3.26. **New Zealand: Web 2.0 social networking tools**

New Zealand has, as one of the very first OECD countries, begun to pilot broader usage of Web 2.0 social networking tools to explore their potential as generic communication tools for a wider participatory approach to service development and delivery.

The term Web 2.0 is used to describe the social use of the Internet with tools that allow people to collaborate and share information on line in ways previously unavailable. Web 2.0 is used for web-based communities, virtual worlds, and hosted services for social networking, social interaction and information dissemination. The concept of social networking encompasses new patterns of use and behaviour, changing culture, as well as new technologies to support these changes. The tools being used or considered by agencies include: web logs or blogs,[1] wikis,[2] online forums; RSS,[3] mash-ups,[4] social network services; and services such as Flickr and YouTube.

Some agencies are using social networking tools for internal purposes. Wikis or blogs have been established to improve collaboration between parts of an agency (that may or may not be geographically dispersed). Other agencies are using wikis or blogs internally as an experimental stepping stone towards future public engagement on policy making or programme development.

Social networking tools are also being used across government agencies. A few examples are: *Government Shared Workspace* – a suite of online tools that supports information sharing and working between government agencies; *E-initiatives Wiki* – an online library of ICT projects across government, set up by the State Services Commission, to allow those working on similar projects to share information and experience; *TiWiki* – the Ministry of Education's collaborative website for people from various agencies in the tertiary education sector; and *Principals Electronic Network* – an interactive online community of principals and school leaders, established as a space for reflection and discussion, and to facilitate learning from colleagues' knowledge and expertise.

Most social networking initiatives have been developed by agencies for the purpose of engaging with the public. A few selected key examples are:

- **Police Act wiki** – an initiative by the New Zealand Police to encourage public contributions to inform the drafting of the new policing act. The wiki was one of a number of initiatives undertaken by the police to enable people to participate in the project. The experiment was trialled for one week in 2007, and resulted in thousands of visits and a huge number of ideas and suggestions from the public during that brief time. All were posted publicly on line and this material was provided to the select committee considering submissions on the bill. The wiki also generated much interest from other governments wanting to learn from the experience and undertake similar initiatives themselves.

Box 3.26. **New Zealand: Web 2.0 social networking tools** *(cont.)*

- **Web Standards wiki** – a collaborative space in which to share knowledge and make suggestions on the New Zealand Government Web Standards. These standards exist to ensure that government websites are accessible regardless of a user's disability, web browser, mobile device, or connection speed. The wiki widens and deepens the discourse on standards development that would otherwise be likely to occur. Users discuss the rationale behind each standard and can see how their input has been integrated into the evaluation process. It also opens up the discussion to those who would previously have regarded web standards as impenetrably technical.
- **Participation Project wiki** – a vehicle for collaborative policy making, developed by the State Services Commission. This wiki attracted comments from more than 1 200 people over eight days during the process of developing the Guide to Online Participation – far more input than had ever been received from a conventional public forum. At the centre of the Participation Project is a diverse community of more than 300 practitioners from academia, government, the private sector, civil society, and other countries, all of whom share a common interest in fostering online, public participation.

1. A *blog* (a contraction of the term "web log") is a website, usually maintained by an individual, with regular entries of commentary, descriptions of events, or other material such as graphics or video.
2. A *wiki* is a collection of web pages designed to enable anyone who accesses it to contribute or modify content.
3. RSS is a family of web feed formats (a data format used for providing users with frequently updated content) used to publish frequently updated works such as blog entries, news headlines, audio, and video in a standardised format. An RSS document (which is called a "feed", "web feed" or "channel") includes full or summarised text plus metadata such as publishing dates and authorship. Web feeds benefit publishers by letting them syndicate content quickly and automatically.
4. A *mash-up* is a web application that combines data from more than one source into a single integrated tool.

Source: State Services Commission (2008), *New Zealand E-Government 2007: Progress Towards Transformation*, June, New Zealand, *www.e.govt.nz/resources/research/progress/Progress2007.pdf*, accessed 1 September 2008.

collect suggestions for initiatives from a number of sources. A total of 274 suggestions were received, 86 of which eventually became part of the final Simplex 2007 programme (which contained 235 different initiatives – corresponding to 37%). For the preparation of Simplex 2008, a total of 775 contributions were received. Of these, 54% were comments or suggestions. More than 60 suggestions eventually became part of the final version of the 189 initiatives in Simplex 2008 – corresponding to 32%.[9]

Box 3.27. **Malta: Targeting user take-up and user participation**

The implementation of e-government services in Malta has been very successful. In 2007, the European Commission ranked Malta second place in online sophistication and availability of e-government services. The *Smart Island Strategy for 2010*[1] has the vision of transforming Malta into a regional ICT services hub.

To date, more than 90% of the widely used public services are being provided on line. By means of the e-government web portal (*mygov.mt*), citizens can access all e-government services which are available online. This portal encompasses an electronic identity (e-ID), an electronic payment gateway and an SMS (short message service, or text messaging) gateway that has push and pull capabilities. The electronic identity (e-ID) offers a secure, single sign-on authentication and electronic signing.

Two of the most successful e-government services include the MEPA e-Applications and eVERA. The e-Applications of the Malta Environment and Planning Authority (MEPA) portal provides the functionality to the public, architects and consulting bodies who are registered with the authority to access electronic documents and correspondence on applications, registrations and notifications. The eVERA service provides citizens with the facility to renew their driver's licence on line. Vehicle owners may also check the date of their next Vehicle Roadworthiness Test (VRT). Vehicle test stations and insurance companies are electronically connected to the Transport Authority's systems. This has eliminated the need for a person to visit the Authority's front-office and there has been an encouraging take-up of about 80% of all licenses being renewed on line.

The Ministry for Infrastructure, Transport and Communication continues to be the political champion in drawing ambitious programmes for e-government services in Malta. The implementation of the ICT strategy for Malta will be strengthened under a new organisational set-up – the Malta Information Technology Agency (MITA). The agency will serve as the central driver of ICT policy, programmes and initiatives in Malta. The government's initiatives in e-government services involve overcoming major challenges. The major challenge has been to instil stakeholder ownership of the e-government service as well as rapidly procure and deliver the services and ensure take-up. Malta's next challenge is not only to further disseminate e-government but also to further engage e-government agents which (as in the case of the Transport Authority) have shown to be successful at increasing take-up. E-Participation is also very important on Malta's agenda, using the latest Web 2.0 technologies to bring about active involvement of citizens in the moulding and delivery of more effective public services.

1. The Smart Island. The national ICT Strategy for Malta 2008-2010 states a political vision of Malta becoming one of the top ten information societies in the world with the focus on having ICT becoming the main vehicle for social cohesion and engagement, and economic development. See *https://secure2.gov.mt/SmartIsland/Pages/Home.aspx*. To download the strategy, see *https://secure2.gov.mt/SmartIsland/Pages/Helper/Downloads.ashx?id=5f615288-b162-418a-b7e7-5ba9d7237f33*, both links accessed 14 September 2008.

Source: Malta's Embassy to France, 2008.

Spain has involved citizens in the development of its e-government law ("Law for Citizen's Electronic Access to Public Services"), using a discussion forum in its national portal, where the different drafts of this law were discussed. Many of the suggestions posted by anonymous citizens were adopted in the approved text.[10]

Engaging users and stakeholders through online consultation and participation is still in its infancy, and its success depends on governments taking these new channels of communication (with, in and between all stakeholders) seriously. Digitising communication will enhance governments' communication with the so-called "digital natives" (younger generations that are familiar with, and use, electronic communication regularly), a growing population. Increasing user take-up of e-government services depends not only on whether governments can succeed in engaging people across all sectors, but in also helping users trust these services – a situation which has been fully recognised by, for example, Malta (Box 3.27). Making e-government services known is an equally important challenge to address and ensure that potential users know of their existence and how to find them. This is one of the basic prerequisites and the topic of the following section.

Marketing and channel management

Marketing and channel management are important for user take-up. This activity is often overlooked in e-government projects, leaving services under-used and short of expectations and promises made. Therefore, governments have realised the importance of marketing e-government services and developing an appropriate channel management strategy that fits the e-government readiness situation of the country.

This section will take a closer look at how selected governments have incorporated marketing and channel management in their e-government strategy, implementation and roll-out.

Marketing of e-government services

OECD e-government country studies show that the lack of user awareness of e-government services is a significant barrier to increasing user take-up. Marketing of e-government services is therefore a necessary part of a communications and promotion plan for e-government services. Awareness raising has shown successful for many countries and has had a direct impact on user awareness and take-up.

Marketing of e-government services involves educating users about the possibilities of a given e-government service, as well as building a recognisable brand in the users' minds (and thus establishing necessary user trust). Attention to these issues is increasing in OECD countries, and resources are

set aside to improve the professionalism and effect of marketing and awareness raising in the public sector.

Korea has taken up the challenge of low user take-up and adopted a four-year national plan to increase user take-up. One of the key elements of the plan is the marketing and promotion of e-government services (Box 3.28).

Box 3.28. **Korea: Awareness raising – a priority in its new national plan (2008-11)**

The Korean government has established a four-year national plan (2008-11) to increase user take-up of e-government services in Korea. The action plan takes a phased approach to increase the usage rate of e-government services, through the increase of public awareness, user take-up, and public satisfaction level.

- **Phase I (2008)** will focus on increasing the public awareness of e-government services (with the aim of reaching 86% of user awareness) and on establishing a legislative framework for promoting e-government services. All Korean e-government services are to be branded by a "Korea e-Government" brand as a means to raise public awareness and strengthen advertisement efforts through co-operation with private Internet portals.
- **Phase II (2009)** will focus on customising e-government services to meet user needs; the provision of "My-egov" services and the identification of administrative services that could be useful to the public as e-government services; the application "integrated ID management system (G-PIN)" will be developed further to strengthen ICT security.
- **Phase III (2010)** will focus on creating a quality management system in order to increase user satisfaction levels; and it will focus on applying professional service quality assessment agencies for quality assessment of e-government services.
- **Phase IV (2011)** will focus on reaching the targeted rates for public awareness (90%), user take-up (60%), and service satisfaction (80%).

Source: Korean Ministry of Public Administration and Security, 2008.

Other OECD countries, such as Germany and the United States, have prioritised the marketing of their portals and e-government services with the aim of increasing the use and adoption of those services (Box 3.29). The United Kingdom has targeted the promotion of e-government services delivered by local authorities and managed to raise awareness and user take-up during a "Connect to your counsel" take-up campaign (Box 3.30).

Box 3.29. **Germany and the United States: Marketing e-government**

Marketing is an integral part of the German initiative *BundOnline*. Initially the marketing focus was on enhancing awareness of the *BundOnline* and the services it offers to citizens, businesses and government agencies. As transactional services have become available, the focus is now concentrated on making the services better known to businesses and improving usage.

In the United States, the Office of Management and Budget (OMB) is trying to boost citizens' awareness of federal e-government service, through a marketing and outreach strategy focused on about 10 of the 25 "Quicksilver" projects. Marketing will include targeted outreach to particular customer segments, innovative ideas on how to increase usage, and methods on providing greater synergy among e-government offerings. OMB will give each agency project office resources to reach out to citizens. The marketing plans likely will focus on how many customers are using the service and whether or not it meets their expectations. The approach will focus on enhancing utilisation and adoption.

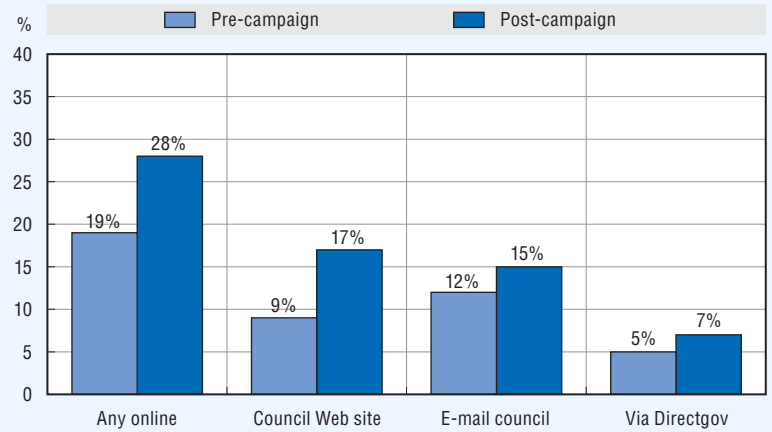
Box 3.30. **United Kingdom: Increasing user take-up through "Connect to your council" take-up campaign**

The take-up campaign to encourage more people to use effective and efficient online council services was launched by UK communities and local government on 8 May 2006.

Under the strap-line of *Connect to your council*, the campaign was designed to raise citizen awareness around their access to a wide range of council services on line, from finding information on rubbish collection, to applying for school places, or paying bills. People going to the campaign homepage at *www.direct.gov.uk/mycouncil* only need to enter a post code, town or street name to be taken directly to the relevant service page of the local council website. With two-thirds of UK homes connected to the Internet and over 10 million broadband connections, there is a huge opportunity for people to connect with their council on line, by putting themselves in charge of when, where and how they access local services.

A pre- and post-campaign survey measured the impact of the campaign. The campaign contained three campaign bursts. The results of the first impact measurement (May-July 2006) are shown in the figure below.

Box 3.30. **United Kingdom: Increasing user take-up through "Connect to your council" take-up campaign** *(cont.)*



The figure shows a significant increase of 88% (from 9% to 17%) in those accessing council websites. The long-term impact can be seen by comparing the first burst survey results with the third burst survey results: the third bursts show a more modest relative increase, though on a higher level from 12% to 14% for those accessing council websites.

Source: Crown (December 2007), *The Communities and Local Government "Connect to your Council" Take-Up Campaign. Campaign Review and Recommendations for Future Local Authority Campaigns (Bursts 1-3)*, Communities and Local Government, London, *www.communities.gov.uk/documents/localgovernment/pdf/Connect_your_council.pdf*, accessed 1 September 2008.

Channel management strategy and incentives for users

The most common concerns for e-government users' are that their problems or questions are not addressed and that e-government services are not relevant to their needs. Providing them with integrated services addressing their needs and delivered through their choice of delivery channel, is important for improving user take-up. Delivering services using a carefully considered multi-channel strategy targeted at the main user segment's habitual preferences of delivery channel and media will lower barriers for take-up and increase the relevance of e-government services.

There are different considerations to keep in mind when deciding on a channel management strategy. One is to actually reach the user segment or segments which are relevant for that group. Another is to use the e-government readiness level in a country or among identified user segments to create incentives for those users to use the digital channel. If these

preconditions are met, one could also consider closing down more traditional and resource-intensive channels.

The former approach is exemplified by the difficulty of reaching the "digital natives" where the digital channel is preferable to other service delivery channels (Box 3.31). The example shows that user-focused e-government is also about meeting users on their terms and in their own environment – meaning using mobile telephones as the main service delivery platform for the "students" user segment.

The latter approach is specifically stated in the *Danish E-Government Strategy 2007-10* (Box 3.32). Impacts of this can be seen in abandoning paper-based communications where possible. Examples are: Denmark with mandatory electronic reporting of pollution data[11] and Hungary regarding businesses' tax return declarations.[12]

Box 3.31. **The Netherlands: Multi-channel strategy of the IB-Groep (Agency for Educational Grants Administration)**

The *Informatie Beheer Groep* (IB-Groep) is an independent government agency responsible for the administration of student grants, information management, and the organisation of examinations. IB-Groep has about 3.5 million users, including about 550 000 students and their parents. In the late 1990s and early 2000s, IB-Groep was in crisis. The agency faced broad criticism over slow and poor customer service. The problem was so severe that the IB-Groep became a political liability for its responsible minister. Under intense external pressure, the agency initiated a total rethinking of operational strategies, aiming to implement intelligent, strategic and integrated usage of ICT to solve many performance problems.

The *Mijn IB-Groep* – the portal for study loans and grants – was developed and implemented. IB-Groep aimed to reallocate resources to users who needed personal advice and to give users who were able to manage their own affairs the opportunity to do so. The agency also wanted to change its image to a service-driven and innovative organisation which is easily accessible to customers. The IB-Groep also developed an e-authentication concept using SMS and mobile telephones, to respond to experience that students frequently misplaced electronic tokens or other e-solutions, but do not lose their mobile phones. The sense of emergency inspired the IB-Groep to implement different channels of service delivery (physical regional offices, telephone services, e-mail contacts, and web portal services), more intelligently directing users to the proper service channels.

Source: OECD (2007), *OECD e-Government Studies: Netherlands*, OECD, Paris, p. 149.

Box 3.32. **Denmark: Mandatory use of digital channels through proactive channel management**

The Danish E-Government Strategy 2007-10 emphasises the use of digital channels in communication between authorities and citizens and businesses. The strategy states that digital channels can become mandatory for specific user groups to use where conditions are in place. Having a citizens portal (*borger.dk*) and a business portal (*virk.dk*) in place, the aim is to have all e-government services fully integrated and on line: for citizens, all e-government services should be completely integrated into the *borger.dk* by 2010; for businesses all e-government services (reporting solutions) should be accessible by 2009 and 75% of business reporting should be digital by 2012.

The strategy specifically mentions that channels of communication between the public sector and citizens and businesses should be targeted and strengthened so as to promote digital channels as much as possible. An example is the creation of a digital letter box in which citizens and businesses, by 2010, can choose to receive their communications from the public sector solely in this way. It will be explored whether e-government services can become mandatory for ICT-ready groups, with special focus on: educational grant applications, business reporting of absence due to sickness, registration of new business information with the authorities, and the founding of private limited companies.

Areas which have become fully digitised are: *NemKonto* (EasyAccount) where all citizens, businesses, and associations are obliged to get a *NemKonto* bank account number to which the public sector can transfer money; *Jobnet.dk* (public website for job seekers) which is mandatory for the unemployed to be registered and where they can continuously confirm their status as job seeker; *E-faktura* (e-invoicing) where it is mandatory for providers of products and services to electronically invoice public organisations; and all central government employees receive their pay slips electronically only.

Source: The Danish Government, Local Government Denmark (LGDK) and Danish Regions (2007), *The Danish E-Government Strategy 2007-2010: Towards Better Digital Service, Increased Efficiency and Stronger Collaboration*, The Digital Taskforce, Ministry of Finance, Denmark, June, *http://modernisering.dk/fileadmin/user_upload/documents/Projekter/digitaliseringsstrategi/ Danish_E-Government_strategy_2007-2010.pdf*, accessed 15 September 2008. See also the Ministry of Finance website on the progress of the *Obligatorisk digitalisering* (manatory digitisation) project: *http://modernisering.dk/da/projektside/bedre_digital_service/obligatorisk_digitalisering*, accessed 1 September 2008.

Notes

1. Several national Information Society strategies from the mid-1990s include strategic goals and concrete action lines on improving the quality of life of disabled persons using ICT. Initiatives are often developed as part of electronic inclusion programmes aimed at addressing accessibility issues. On 13 December 2006, the United Nations

adopted the Convention on the Rights of Persons with Disabilities, which explicitly mentions accessibility of disabled persons to information and communication technology as an integrated part of a full participation and inclusion in society equally to "physical accessibility" in general – as seen in the Convention's Article 9, first paragraph (see *www.un.org/disabilities/default.asp?id=150*, accessed 31 August 2008).

2. As for example in Portugal where the government launched its Simplex programmes to improve the performance of the public sector as a means of making life easier for citizens and businesses. See OECD (2008), *Making Life Easy for Citizens and Businesses in Portugal. Administrative Simplification and E-Government*, OECD, Paris.

3. Several OECD countries have education and training in focus in their Information Society and e-government strategies according to OECD country studies on e-government. *See also Chapter 1, Note 2.*

4. European Commission (2007b), "Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, Action Programme for Reducing Administrative Burdens in the European Union", COM(2007)23final, Commission of the European Communities, *http://ec.europa.eu/enterprise/regulation/better_regulation/docs/docs_admin_b/com_2007_23_en.pdf*, accessed 31 August 2008.

5. According to the Spanish Ministry of Public Administration, 2008.

6. "Usability" has been studied for several decades as part of ongoing research on human-computer interfaces in computer science. "Usability" is understood as the measurement of how easy or difficult it is to be productive with a piece of software. It often looks at the user interface – what elements appear on screen and how efficient, confusing, and/or intuitive they are for beginning, intermediate, and advanced users. "Usability engineering" is the formal study of usability. See for example Nielsen, Jakob (1993), *Usability Engineering (Interactive Technologies)*, Academic Press Inc, July 1993.

7. The OECD e-government country study of the Netherlands shows that 65% of the population that does not have Internet access at home have answered that they do not want the Internet because they are not interested or do not find an Internet connection useful. See OECD (2007), *OECD e-Government Studies: Netherlands*, OECD, Paris, Table 2.4, p. 77.

8. The OECD e-government country study of Denmark shows that 15% of the Danish population indicated a lack of need for the Internet. See OECD (2006), *OECD e-Government Studies: Denmark*, OECD, Paris, Chapter 3.4, p. 74.

9. OECD (2008), *Making Life Easy for Citizens and Businesses in Portugal: Administrative Simplification and E-Government*, OECD, Paris, Chapter 5.

10. According to information received from the Spanish Ministry of Public Administration, 2008.

11. Denmark has required electronic reporting to public authorities in a number of areas. An example is the mandatory reporting of pollution data according to the Government Order No. 132 of 07/02/2007 (see *https://www.retsinformation.dk/Forms/R0710.aspx?id=13088*, accessed 19 August 2008).

12. Hungary has obligated an increasingly number of larger enterprises to submit their tax return declarations on line according to OECD (2007), *OECD e-Government Studies: Hungary*, OECD, Paris, Box 6.5, p. 151.

Chapter 4

Monitoring and Evaluating User Take-up

Monitoring and evaluating user take-up are prerequisites for understanding user preferences and needs. Today, monitoring and evaluating are limited. Governments are, however, increasingly aware of the necessity to collect standardised and systematic information and data to be able to better target e-government development activities and increase user take-up.

Governments have only within the last few years developed a national measurement framework and applied it in periodical (typically yearly) measurements. Most countries with a national measurement framework first implemented them and made them operational in the mid-2000s and forward. Measuring e-government service take-up is thus a new activity with limited experience and solid information and data behind it.

Internationally, comprehensive user take-up and satisfaction measurement frameworks are still in their infancy. They can be categorised as either internally focused (quality assurance processes including leadership, strategy and planning, human resource management, process and change management, etc.) or externally focused (customer satisfaction, portal/site quality, and quality of service for web services). Benchmarking is done by the United Nations, the European Union, Brown University (United States) and Waseda University (Japan). The European Commission has since 2004 worked on a Union-wide measurement framework and in 2007 piloted a user-centric composite indicator in its benchmarking of e-government.

The OECD is proposing to put the user at the centre of its benchmarking and to move towards benchmarking the ability of governments to use e-government to achieve better government as part of future Government at a Glance publications. Future indicators may investigate the correlations of e-government performance to core government business areas, as well as e-participation, and co-designed services.

Monitoring and evaluating user take-up are prerequisites for understanding user preferences and needs. By understanding user preferences and needs, governments become better equipped to effectively combat lagging user take-up of e-government services. Today, monitoring and evaluation of user take-up is limited. Governments are, however, increasingly aware of the necessity to collect standardised and systematic information to be able to better target e-government developments and initiatives, and increase user take-up.

The focus of this chapter is to address different approaches to user take-up measurements and good monitoring and evaluation practices; it aims at providing relevant information and data to governments in order to enable them to address the challenge of low user take-up. Often, these initiatives will address the development and establishment of a measurement framework, agreements on monitoring and evaluation across the public sector, and the systematic usage of collected measurement data to be channelled back into the e-government services development and implementation process.

Having a national measurement framework and using it systematically and periodically to "take the temperature" of user take-up of e-government services is still in its infancy. Many OECD countries have only within the last few years developed a national measurement framework and applied it in periodically (typically yearly) measurements. Table 4.1 sets out an overview of countries with, and without, national measurement frameworks (see also Annex B for a complete overview and description of national measurement frameworks, methodologies, and monitoring and evaluation approaches).

Most countries with a national measurement framework first implemented them and made them operational in the mid-2000s and forward (according to the stock-taking in Annex B). The numbers show that 14 out of

Table 4.1. **Countries with, and without, national measurement frameworks**

	Countries
Countries with a national measurement framework	Australia, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Japan, Korea, Mexico, Netherlands, New Zealand, Norway, Portugal, Slovak Republic, Slovenia,[1] Spain, Sweden, Switzerland, Turkey, United Kingdom, United States.
Countries without a national measurement framework	Austria, Czech Republic, Finland, Hungary,[2] Ireland, Italy, Luxembourg, Poland.

1. Accession country to the OECD.
2. Hungary is in the process of introducing a national measurement framework.

22 OECD countries with a national measurement framework in place by 1 March 2008 had first implemented it and made it operational in 2006 or 2007. This indicates that measuring e-government service take-up is a new activity which is on the rise, with limited experience and solid information and data behind it – as also seen from the answers given by OECD countries to the survey of the 2007 OECD study, *E-Government as a Tool for Transformation*.[1]

A number of countries without a national measurement framework do, however, make use of user-centric indicators to track the development in user take-up and user satisfaction (as already shown in the 2007 OECD study, *E-Government as a Tool for Transformation*[2]). Table 4.2 sets out some of these measures on delivery. It also provides a clear indication of the increasing importance of indicators as an integrated part of an evidence-based approach to e-government development.

Table 4.2. **Selected service-delivery indicators in use in some OECD countries, 2007**

Indicator category	Country examples (qualitative/quantitative measure)
User take-up	Australia (quantitative): high user take-up. Austria (quantitative): increased take-up. Denmark (quantitative). Finland (quantitative). Hungary (quantitative). Japan (quantitative): 50% or more of online application rate by FY 2010. Spain (quantitative): different goals for different services; the use of the e-identity card will be enabled for all e-services. Turkey (quantitative): 35% take-up.
User satisfaction	Australia (quantitative): high satisfaction rate. Austria (quantitative): increased take-up. Belgium (qualitative). Denmark (quantitative). Finland (quantitative). Hungary (qualitative and quantitative): improve satisfaction by 10% by 2013. Mexico (qualitative and quantitative): ACSI Citizen´s Portal Satisfaction Index used by different ministries and UGEPTI.[1] Spain (qualitative). Turkey (quantitative): 80% user satisfaction.
Users' first point of contact resolution	Australia (quantitative): increase in numbers. Austria (quantitative): increased take-up. Belgium (qualitative). Denmark (quantitative): 15% of citizens' contacts with public sector institutions should be resolved at first point of contact by 2010. Mexico (qualitative and quantitative): used by different ministries. Spain (qualitative). Turkey (quantitative): 33% resolution.
Speed of response to user information requests	Belgium (quantitative). Finland (quantitative): different agencies measure separately. Mexico (quantitative): response time depends on the requirements.

Table 4.2. **Selected service-delivery indicators in use in some OECD countries, 2007** *(cont.)*

Indicator category	Country examples (qualitative/quantitative measure)
Speed of e-services transactions for users	Denmark (quantitative). Hungary (quantitative): average less than ten days. Japan (quantitative): saving costs (time and fees) required by applicants. Mexico (quantitative).
Number of ICT security incidents	Australia (quantitative). Belgium (quantitative). Finland (quantitative). Mexico (quantitative).

1. *Unidad de Gobierno Electrónico y Política de Tecnologías de la Información* (E-Government Policy and ICT Unit within the Mexican Ministry of Public Administration).

Source: OECD (2007), *E-government as a Tool for Transformation*, OECD unclassified document, GOV/PGC(2007)6, 28 March 2007, excerpts from Table 10, p. 46.

International measurement frameworks and indicators for user take-up

User-focused services and modes of delivery must be grounded in thorough user research. Continuous feedback on usage and satisfaction can improve service quality, development and delivery so that services better match user expectations. They are applicable not only to online services, but to agencies' overall business objectives, so that an organisation as a whole can learn from their users' constantly shifting preferences. Internationally, comprehensive user take-up and satisfaction measurement frameworks are still in their infancy.

There are different categories of international measurement frameworks and models:[3]

- **Internally focused approaches** consisting of frameworks which are mainly applied within an organisation and focus on quality assurance processes, addressing areas such as: leadership, strategy and planning, human resource management, process and change management, etc.
- **Externally focused approaches** consisting of frameworks assessing areas such as: customer satisfaction, portal/site quality, and quality of service for web services.

Even though different approaches are being used – either as a quality assessment and assurance tool (the internally focused approaches) or as a "satisfaction" measurement tool (the externally focused approaches) – each approach to measurement depends on the concrete situation and specific needs in a given situation.

Internationally known e-government measurement frameworks are increasingly addressing outcome measures including those that describe user take-up and satisfaction. For example, the 2008 UN E-Government Survey[4]

describes user participation in its E-Participation Index as a measure for how proactively governments consult citizens as one of the elements of a user-focused e-government perspective. The European Union has come far in creating e-government indicators, with a recent attempt to develop a convincing measure for user centricity, and tested such an indicator in its 2007 e-government measurement for the first time.[5] (This European Union indicator is analysed further below.)

The yearly global e-government benchmarking undertaken by Brown University,[6] which assess national government websites, also covers user accessibility questions in its assessments. For all the above-mentioned types of measurement frameworks giving cross-country comparable data on e-government, their main focus is broader and assesses different aspects of e-government readiness (looking at accessibility and provision of e-government services rather than targeting outcomes for users of those services). These kind of indicators need to be developed further to better capture the outcome aspects of e-government services.

Waseda University has since 2004 benchmarked 34 countries on a yearly basis within six dimensions (indicators): network preparedness, required interface-functioning applications, management optimisation, national portal, CIO in government, and e-government promotion. Especially, the dimension of "required interface-functioning application" is meant to measure user-friendliness of e-government services. The benchmarking gives a cross-cutting overview of e-government development trends with a focus on selected e-governance issues.[7]

However, over the last five years, the European Union has carried out a number of demand-side surveys and important insights have been gained. These are summarised below.

Towards a European Union measurement framework

Since 2004, Eurostat – the Statistical Office of the European Community – has been collecting data on e-government usage (demand side) through business and household surveys, and Capgemini on behalf of the European Commission has since 2001 been collecting data on e-government service availability (supply side). In terms of usage, these annual surveys now include e-government: Internet-based interaction with European businesses and citizens; e-government usage by enterprises; and e-government usage by individuals (separately for males and females). There are also occasional one-off Euro-barometer surveys.

More specifically, Eurostat and other European Commission surveys of public services provide data for:

- the number of "basic public services" fully available on line;

- the share of individuals using the Internet for interacting with public authorities by purpose: obtaining information, obtaining forms, returning filled-in forms;
- the percentage of enterprises using the Internet for interacting with public authorities by purpose: obtaining information, obtaining forms, returning filled in-forms, full electronic case handling, and submission of proposal in an electronic tender system.

A new i2010 e-government measurement framework, approved in April 2006 by the member states of the European Union, has been developed for piloting in 2007 and roll-out in 2008 and consists of three main types of indicators (see also Box 4.1):

- **availability and sophistication indicators** (existing supply-side indicators supplemented with qualitative supply indicators focusing on user centricity);
- **take-up indicators** from the Eurostat Household and Enterprises surveys;
- **impact indicators** in terms of efficiency, effectiveness, and democracy.

The framework covers a set of thematic indicators which aim at measuring the progress made towards the prioritised goals of the i2010 strategy by the European Union: *i)* the completion of a Single European Information Space which promotes an open, competitive and content-rich internal market for electronic communications, media and content; *ii)* strengthening Innovation and Investment in ICT research to promote growth and jobs through a wider adoption of ICT; and *iii)* achieving an Inclusive European Information Society that prioritises better public services and quality of life. Box 4.1 provides an overview of the thematic indicator sets.

Tables 4.3 and 4.4 show some of the indicators under consideration. The indicators mentioned cover a number of relevant key areas:

- the **availability and sophistication** dimension is addressed by indicators 1.2, 2.2, 2.3, 3.1, and 4.1 in Table 4.3;
- the **take-up** dimension is addressed by indicators 1.1, 2.1, 5.1, and 5.2 in Table 4.3;
- the **impact** dimension is addressed in the suggested composite indicator in Table 4.4 (see also the following section on the European Union user-centric indicator).

Box 4.1. **The European Union's i2010 benchmarking framework**

The European Union has adopted a benchmarking framework to track the progress of fulfilment of the i2010 strategic goals. The sets of indicators covering the themes are:

- **Theme 1: Developments of broadband.** The issues covered by indicators are: broadband coverage, broadband take-up, speed and price, and multiplatform of access to the Internet.
- **Theme 2: Advanced services.** The issues covered by indicators are: availability of advanced online services and usage of advance online services.
- **Theme 3: Security.** The issue covered by indicators is: a security module in the Community Surveys on ICT usage.
- **Theme 4: Impact.** The issue covered by indicators is: indicators on growth of the ICT sector.
- **Theme 5: Investment in ICT research.** The issue covered by indicators is: investment in ICT research.
- **Theme 6: Adoption of ICT by businesses.** The issues covered by indicators are: indicators on basic connectivity and ICT adoption, e-commerce, e-business, and an e-readiness or an e-business composite indicator.
- **Theme 7: Impact of adoption of ICT by businesses.** The issues covered by indicators are: investment and expenditure in ICT in enterprises, households and government, productivity impact, and employment and skills.
- **Theme 8: Inclusion.** The issues covered by indicators are: computing disparity indices with household connectivity and usage indicators, e-accessibility, and measuring digital literacy.
- **Theme 9: Public services.** The issue covered by indicators is: e-government (availability online, using the Internet for interacting with public authorities broken down by purpose, percentage of enterprises using the Internet for interacting with public authorities broken down by purpose).

Source: European Commission (2006), *i2010 Benchmarking Framework*, i2010 High Level Group, Issue No. 1. See *http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/060220_i2010_benchmarking_framework_nov_2006.doc*, accessed 15 September 2008.

Table 4.3. **Proposed European Union e-government measurement matrix**

1.1. Usage of e-government services by socially disadvantaged groups.	3.1. % of public procurement (tenders) above the EU threshold available electronically.
1.2. Public websites degree of compliance with international accessibility standards.	3.2. % of public procurement above the EU threshold carried out electronically.
2.1. User satisfaction with e-government services.	4.1. (a) Number of transactional public services with legally binding eID and (b) with mutually recognised eID within the European Union and/or nationally.
2.2. Amount of information requested from citizens and businesses.	5.1. E-Participation sophistication index.
2.3. Number of transactional services fully completed online (net, SMS, Digital TV, kiosks) or automatically.	5.2 Number of unique users of online forums.

Source: European Commission (2006), *eGovernment Measurement Framework*, a presentation by Juan Arregui McGullion, DG INFSO, Brussels, 28 June.

Table 4.4. **Towards a user-centric complex indicator**

Convenience	How many data fields in form for transactional services?
Multiplatform	Are alternative delivery channels listed and explained?
Tracking and tracing	Is there a tracking and tracing system listed and explained?
Multilanguage	Is the national portal completely available in the different European Union Member States languages and at least for 75% in another European Union language and in the language of the most important foreign community?
Integration	How many basic services are accessible through the national portal?
Accessibility/inclusion	Are sites compliant with international accessibility standards?
Support and mediation	Are there mediation services: are help-functionalities offered or resources available to help the citizen or business with this service?

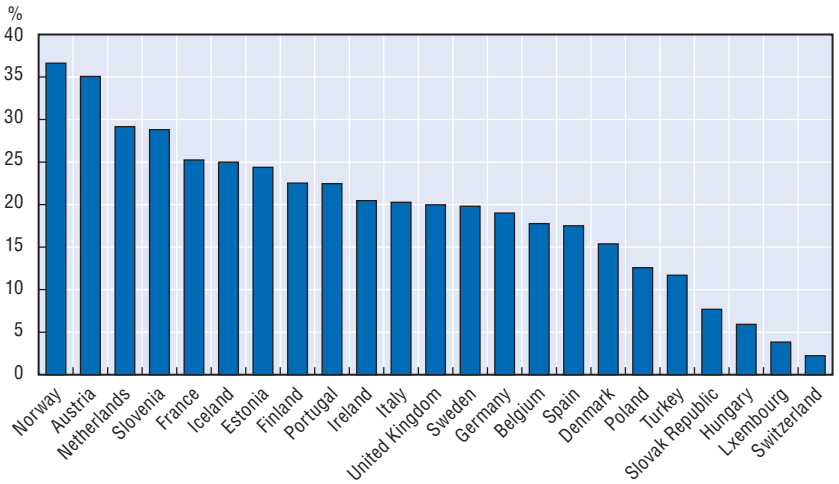
Source: European Commission (2006), *eGovernment Measurement Framework*, a presentation by Juan Arregui McGullion, DG INFSO, Brussels, 28 June.

The European Union user-centric composite indicator

The first application of a user-centric composite indicator was given in the seventh measurement of e-government within the European Union in 2007.[8] A composite indicator was defined based on four sub-indicators: personal data security (trust); administrative burden (convenience for users); channel choice and access (multi-channel access); and accessibility standards (compliance with international standards of accessibility). Figure 4.1 displays the first ranking with the usage of this indicator.

This provides a first look at how such an indicator could be built, and whether the indicator will be useful for European Union member states (as it is still being discussed among countries). From an international perspective, the indicator provides a first cross-country data set measure of how four different indicators of high relevance for user take-up might become useful as a tool to further analyse the central question of why user take-up and satisfaction of e-government services is lagging.

Figure 4.1. **User centricity – European Union country ranking**



Source: OECD compilation (2008) based on European Commission (2007), *The User Challenge Benchmarking The Supply Of Online Public Services*, 7th Measurement, September, prepared by Capgemini for the European Commission, Directorate General for Information Society and Media, Figure 4.1, p. 25.

OECD countries have each developed a variety of tools and approaches to increase the take-up of e-government services. A series of country case studies (set out in the next section) will identify best practice principles, and will present examples and their impact on the measurements of user awareness and consultation, and user participation.

Towards a basic set of OECD e-government indicators

OECD countries are transforming government through the use of ICT and ICT-enabled governance structures, new collaboration models (*i.e.* shared data, processes and portals), and "networked" or "joined-up" administrations. Public sector transformation and e-government are therefore increasingly seen as closely linked policy areas. Several OECD e-government studies have shown that ICT is used to support broader public sector development objectives, aimed at creating a more coherent, user-focused and efficient public sector by *i)* changing service delivery approaches through the creation of personalised, high quality services to users, thereby increasing user satisfaction and effective service delivery; *ii)* facilitating major work organisation and management changes creating back-office coherence and efficiency gains; *iii)* increasing transparency of government activities, and *iv)* increasing citizen engagement.

The goal of developing a basic set of OECD e-government indicators – as a part of a OECD "Governance at a Glance" publication planned for 2009[9] – has initiated discussions on how to best use the work already carried out internationally (as discussed above). In addition, as a result of the Fourth

Ministerial eGovernment Conference hosted by the Portuguese Government in Lisbon on 19-21 September 2007 as part of the Portuguese EU Presidency, the Lisbon Ministerial Declaration calls for European Union member states to "continue to evolve sophisticated measurement practices; in co-operation with Member States and international organisations (*e.g.* OECD)."[10]

E-Government benchmarking means undertaking the review of comparative performance of e-government between nations and their public administrations. Of importance are indicators on readiness, service sophistication, the national portal, user centricity and take-up of services. The UN e-government readiness indicator (see discussion above) evaluates both government capacity for e-government implementation and the country's readiness for e-government services. The European Commission has been measuring the supply of 20 core e-government services offered by its member states since 2001. The next generation of indicators includes the assessment of national portals as well as the degree of user centricity of e-government services. Here, more work remains to be done. Finally, Eurostat has also systematically been collecting data since 2001 on whether individuals, households and enterprises use e-government.

The OECD is proposing to put the user at the centre of its benchmarking and to move towards benchmarking the ability of governments to use e-government in order to achieve better government.[11] Future indicators may investigate the correlations of e-government performance to core government business areas, as well as e-participation and co-designed services. Work will be undertaken to move towards the evaluation of the capacity of government agencies to enact a learning cycle of evaluation, reflection, planning and action.

Country approaches to user-focused measurements

Traditional metrics such as counting website hits and page impressions are not sufficient and often provide a very narrow and simplistic view of user take-up. Monitoring and analysing patterns of use, traffic volumes, user likes and dislikes, user satisfaction and attitudes towards information and data use, seasonal variation, audience breakdown, e-mails and feedback, and the use of search terms are all important elements in understanding how users consume electronic services. Such analysis should feed directly into e-government service development and delivery so that those services better match user expectations.

Across OECD countries, there have been more studies and data on the service provision and usage side of e-government services than on take-up. This is because:

- it is much easier to collect supply-side data than take-up data, and chronologically, take-up and usage tend to come after service roll-out and are thus dependent on availability;

- such demand-side surveys are costly, given the huge numbers of potential users compared to suppliers, and the conceptual and technical difficulties in designing and implementing such surveys.

The following examples in Boxes 4.2 to 4.6 show selected country approaches to user-focused measurement methodologies:

- **Australia** has since 2004-2005 conducted yearly systematic surveys on use and satisfaction with e-government services (Box 4.2).
- **Belgium** has also since 2005 measured the use and satisfaction of federal e-government services (Box 4.3 and Annex A).

Box 4.2. **Australia's e-government user take-up study**

Australia has conducted an annual study since 2004-05 called "Australians' Use of and Satisfaction with e-Government Services". The study documents experiences and satisfaction with government services to be monitored over time and its insights assist all three tiers of government in Australia to better design and deliver services which meet citizens' needs. The study aims to explore:

- how people use the Internet, telephone, mail and in-person service delivery channels to contact government;
- satisfaction with government services through all channels, including reasons for satisfaction and dissatisfaction;
- motivations for, and barriers to, use of e-government services;
- preferences for future service delivery.

In 2008 the major findings were:

- four in five people use the Internet and older Australians are increasingly doing so;
- access to broadband continues to grow;
- use of newer communication technologies is strong;
- the Internet is now the most common way people last made contact with government;
- satisfaction with using the Internet to contact government and with service delivery remains high;
- convenience continues to be a key factor in the decision to use an e-government channel;
- while contact with government in person is declining, the proportion of people who say they do so because they have no alternative is increasing;
- the potential for growth in the use of the Internet to contact government remains strong.

Source: Australian Government Information Management Office (AGIMO) (December 2008), "Interacting with Government. Australians' Use of and Satisfaction with e-Government Services", AGIMO, Department of Finance and Deregulation, Australia, */www.finance.gov.au/publications/interacting-with-government/docs/interacting-with-government-report.pdf*, accessed 3 January 2009.

Box 4.3. **Belgium: Fed-e-View/Citizens survey**

To back-up its user focus, the Belgian federal government has expanded its Fed-e-View survey to citizens. The Fed-e-View/Citizens survey, which commenced in 2005, was aimed at getting information on citizens' use, knowledge and expectations regarding e-government. Over 4 500 users and non-users of the Internet were questioned three times between June 2005 and October 2006. This e-government study was the most important of its kind carried out in Belgium.

The study revealed that the use and knowledge of ICT has marked a substantial progression. Among previous non-users of the Internet, the proportion of computer owners and Internet connections has increased during 2005-06. However, the digital divide remains a reality for a rather homogeneous group of "resistants", generally older and less-educated individuals.

The use of public administration websites is motivated by the need for information, but this information proves difficult to find. In general, e-government applications fail to reach the quality of commercial applications and services. Users call for concrete, secured, proactive and transactional public services on line. Furthermore, despite a true interest in the eID card, its actual use is quite limited among eID owners: 60% of Internet users own an eID card, but only 28% of them have actually made use of it. As a result, enhancing understanding and trust in the eID card will be the cornerstone of the e-government federal policy. E-Democracy issues do not represent as strong a priority for citizens as public information and services. However, Internet voting is very popular among web users.

Source: OECD (2008), *OECD e-Government Studies: Belgium*, OECD, Paris.

- **France** developed an analytical method for analysing the value of e-government projects called MAREVA (*Méthode d'analyse et de remontée de la valeur*) (Box 4.4).
- **Germany** developed a measurement system called the WiBe framework which seeks to map both monetisable and non-monetisable efficiency gains for both public administrations and their users (Box 4.5).
- **The Netherlands** has since 1998 had yearly systematic monitoring of e-government progress including use and satisfaction of e-government services (Box 4.6 and Annex A).

The selected examples highlight country cases in which national e-government measurement frameworks has included user-centric measures to track take-up and satisfaction – two central parameters which allow governments to learn more about user needs and demands. These types of information are important for the continuous improvement of e-government services.

(For further examples of country approaches collected from OECD country studies of e-government, see Annex A.)

Box 4.4. **France: MAREVA**

The former French Electronic Administration Development Agency (ADAE)[1] has developed an analytical method for analysing the value of e-government projects: MAREVA (*Méthode d'analyse et de remontée de la valeur*). MAREVA is used in selecting projects to be funded, monitoring projects during implementation and evaluating projects after implementation. By February 2006, the methodology had been applied to 30 projects.

The power of MAREVA lies in providing a standard, consistent and repeatable method for appraising and selecting projects to be funded that can also be applied at the termination of the project to determine its actual value. Many countries use return on investment (ROI) or cost/benefit analysis to evaluate projects. Because these two types of analysis can be carried out in many different ways, it is often impossible to compare projects. MAREVA standardises what costs and benefits will be considered and what metrics will be generated. The system also considers equity between employees, users and organisations in evaluations, as well as risk and origin of the project mandate (law or other circumstances).

The MAREVA method consists of:

- standard calculations of return on investment using three indicators: breakeven point, internal rate of return, and recurring gain from the project;
- assessment of value using four additional indicators: strategic alignment with organisational goals, economic justification using benefits and costs, risk assessment, and follow up on expected results;
- presentation format using a radar diagram to portray values for profitability, risk control, external considerations, internal considerations, and the necessity of the project.

The MAREVA valuation methodology explicitly considers external benefits to users as well as internal benefits to public sector employees and administration. The methodology also measures risk and the necessity of the project (*i.e.* is the project obligatory).

MAREVA is useful because it defines an adequate (not too complex) approach to evaluating projects by considering return on investment and four other important aspects (risk, benefits for users, benefits for the public sector, mandatory imposed). By using five major metrics, MAREVA allows projects to be compared and an investment portfolio developed.

1. The French Electronic Administration Development Agency (ADAE) was merged into a new Directorate-General for the Modernisation of the State in January 2006.

Source: OECD (2007), *Benefits Realisation Management*, OECD unclassified document, GOV/PGC/EGOV(2006)11/REV1, 29 March.

Box 4.5. **Germany: The measurement framework WiBe and Guidelines for Demand Analysis and User Surveys**

Germany has a national e-government measurement system entitled WiBe which seeks to map both monetisable and non-monetisable efficiency gains, not only for public administrations but also for users. The WiBe Framework is one of the first frameworks for assessment of economic efficiency of federal administrations. Today the WiBe 4.1 (2008) methodology is in full operation, being applied widely at federal, state and municipal levels in Germany.

WiBe distinguishes three aspects of the economic efficiency of IT projects of public agencies: costs and benefits which can be quantified in monetary terms; urgency of the measure (WiBe D); qualitative and strategic importance of the IT project (WiBe Q). The new version adds a fourth aspect with the module External effects (WiBe E) which enables the effects of measures on external customers to be qualitatively recorded and evaluated. To calculate the economic efficiency in monetary terms, WiBe uses the capital value method that also takes into account the time at which costs, earnings and savings occur. To this end, the amount that arose at a specific time is discounted for the base year of the calculation. Costs incurred later and savings are thus included in the calculation with a lower capital value, prior investments with a correspondingly higher amount. If appropriate, risk surcharges can also be calculated. With the capital value method, a measure is regarded as economically efficient if a positive capital value is achieved over the calculation period (normally five years for IT projects). If the capital value is positive, there is basically no need for any further assessment of the qualitative economic efficiency. If it is negative, it is absolutely necessary for the monetary calculation to be supplemented by an extended economic efficiency assessment under WiBe D, WiBe Q and if appropriate WiBe E.

For e-government measures, an assessment of the external effects should be carried out in every case. The qualitative economic efficiency assessment is carried out since WiBe 4.0 as a benefit analysis. For each quality criterion, a ten-point scale is defined in which the points represent different degrees of benefit. A measure is considered economically efficient under WiBe if – after weighting and standardisation of the scales – it achieves at least 50 of 100 points.

In addition to WiBe, as part of the Federal Government's e-government programme at the federal level (E-Government 2.0), a methodology has recently been developed to provide guidance to e-government projects in estimating user satisfaction before projects are started. This methodology is entitled "Guideline for Demand Analysis and User Surveys" and comprises proposed approaches to the identification of target groups, their demands and maturity regarding specific services and channels and recommendations for respective tools and techniques. The guide also offers checklists with targeted questions in order to help users not familiar with user satisfaction measurement. The guide was released in August 2008.

1. See also Annex B on Germany.

Box 4.6. **The Netherlands: *Overheid.nl Monitor 2005***

The *Overheid.nl Monitor 2005*, the Dutch government's seventh annual e-government progress report, reviews the most important advances and challenges facing e-government in the Netherlands. It looks at the supply of information and services, the use of government websites, and the impact of such use (customer satisfaction) to determine, in actual figures, how much progress is being made by different public sector organisations.

Although it highlights a number of encouraging developments, the report finds that much remains to be done in areas such as user-friendliness, transactional services and e-democracy. The report states that authorities must shift their focus from supply to demand. More information and services are being provided electronically and website visits are on the rise, but there has been only a slight increase in the actual use of digital services (except for those provided by national authorities). Response rates and customer satisfaction levels are both stagnating.

The report makes ten general points:

1. good progress has been made with respect to e-service delivery;
2. there is a clear difference between e-services achievements by large and small local authorities;
3. there has been considerable improvement in the presentation of information on line (administrative information such as notifications and permits), but room remains for improvement;
4. user-friendliness ratings have improved almost across the board; however, most organisations receive poor marks in adhering to web guidelines;
5. traceability of information remains a problem, with approximately one-third of visitors reporting that they were unable to find the information they were looking for;
6. government websites are growing in popularity;
7. customer satisfaction with government websites is not improving;
8. the government response rate to e-mail queries from citizens submitted through government websites remains below 80%;
9. take-up is improving for online services provided by national government bodies;
10. three national authorities (the Tax and Customs Administration, the IB-Groep and the Land Registry) now provide all services intended for the public electronically.

Source: OECD (2007), *OECD e-Government Studies: Netherlands*, OECD, Paris, p. 149.

Notes

1. OECD (2007), *E-Government as a Tool for Transformation*, OECD unclassified document, GOV/PGC(2007)6, 28 March, updated in Annex B.
2. OECD (2007), *E-Government as a Tool for Transformation*, OECD unclassified document, GOV/PGC(2007)6, 28 March, Table 10.
3. Papadomichelaki, Xenia, *et al.* (2006), *A Review of Quality Dimensions in e-Government Services*, in M.A. Wimmer *et al.* (eds.), *EGOV 2006*, Springer-Verlag, Berlin Heidelberg, LNCS 4084, pp. 128-138.
4. United Nations (2008), *UN E-Government Survey 2008 – From E-Government to Connected Governance*, United Nations, New York.
5. European Commission (2007), "*The User Challenge Benchmarking the Supply of Online Public Services*", Report of the 7th Measurement, prepared by Capgemini, September.
6. The latest results of the global e-government assessment are found in West, Darrell M. (2008), "Improving Technology Utilization in Electronic Government around the World, 2008", Governance Studies at Brookings, *www.brookings.edu/~/media/Files/rc/reports/ 2008/0817_egovernment_west/ 0817_egovernment_west.pdf*, accessed 5 September 2008.
7. The 2009 Waseda University international e-government ranking has Singapore on the first place followed by the Sweden and the United States on a second and third place. See: *www.gits.waseda.ac.jp/GITS/news/download/e-Government_ Ranking2009_en.pdf*, accessed 5 February 2009.
8. European Commission (2007), *The User Challenge Benchmarking The Supply Of Online Public Services*, Report of the 7th Measurement, prepared by Capgemini, September.
9. In 2009, the OECD will publish its first publication with public governance indicators – the so-called "Government at a Glance". Preparatory work has been conducted since 2005 and considerations and scopes have been presented and discussed among OECD countries in the OECD Public Governance Committee. See the following references: OECD (2006), *Issues in Output Measurement for "Government at a Glance"*, OECD Directorate for Public Governance and Territorial Development (GOV) Technical Paper 2, OECD Project on Management in Government: Comparative Country Data, unclassified document, GOV/PGC(2006)10/ANN2, 13 October; OECD (2007), *Recent Developments in Preparing for "Government at a Glance"*, GOV/PGC/RD(2007)3, 10 April; Lonti, Z. and M. Woods (2008), "Towards Government at a Glance: Identification of Core Data and Issues related to Public Sector Efficiency", *OECD Working Papers on PublicGovernance*, No. 7, OECD Publishing, doi: 10.1787/245570167540, *www.oecd.org/dataoecd/52/34/40209928.pdf*.
10. The Ministerial Declaration of the 4th Ministerial eGovernment Conference was approved unanimously on 19 September 2007 in Lisbon, Portugal. See *www.egov2007.gov.pt/images/stories/ministerial_declaration_final_version_180907.pdf*, accessed 15 September 2008.
11. E-Government is defined by the OECD as "… the use of information and communications technologies (ICTs), and particularly the Internet, to achieve better government" (see OECD [2003], *OECD e-Government Studies: The e-Government Imperative*, OECD, Paris). This definition focuses attention on why countries are implementing e-government rather than on the ICT tools themselves.

Chapter 5

Improving User Take-up: Some Cross-cutting Trends

Governments recognise that providing e-government services is not enough: these services also need to be used by the public. Making the public sector more efficient and effective, and at the same time providing services that citizens and businesses want to use, has over the years been seen as two diametrically opposed goals, but this is not necessarily the case. The goals are complementary in nature and are each their own prerequisites: this is the essence of the paradigm shift from a government-centric to a user-centric service delivery approach.

Looking at service delivery from a user's point of view suddenly puts new demands on the public sector as a service provider. Some OECD countries have grasped this and have transformed – or are in the process of transforming – their public sectors accordingly to enable the delivery of integrated services. This demands strong political and managerial leadership, and a will to change traditional administrative and cultural thinking within the public sector as a whole and among civil servants.

Other cross-cutting experiences show that successful user-focused e-government programmes include: organising government websites simply; creating the same "look and feel"; focusing on "killer applications"; ensuring relevance of services provided; and engaging in inclusive service design. The focus on becoming user-centric and innovative in service delivery suggests the need for governments to set up frameworks for designing, developing and delivering innovative and fully integrated services, whether on- or offline – an issue to be further explored in the future.

Governments recognise that providing e-government services is not enough: these services also need to be used by the public. Making the public sector more efficient and effective, and at the same time, providing services that citizens and businesses want to use, has over the years been seen as two different goals pulling in opposite directions. Today, governments have learned that this is not necessarily the case. The goals are in fact complementary in nature and have each their own prerequisites: efficiency and effectiveness cannot fully be achieved without citizens and businesses using e-government services; user focus and improvement of service quality and delivery cannot be achieved without optimising efficiency and effectiveness within the public sector as a whole. This is the essence of the paradigm shift from a government-centric to a user-centric service delivery approach. E-Government has also proven here to be a key enabling tool in the necessary transformation of the public sector that many OECD countries have been striving for in recent years.

The result of the paradigm shift is an increased focus on users' needs and demands (see Chapter 1). By adopting a user-centric approach to service delivery, the perspective on service development and delivery shifts 180 degrees: it is no longer a success criterion for the different authorities and institutions to individually deliver services to the public. A service has to address specific user needs, regardless of who delivers the service and how many authorities are involved and to what extent.

User-focused service transformation trends

Looking at service delivery from a user's point of view puts new demands on the public sector as a service provider. Some OECD countries have grasped this and have transformed – or are in the process of transforming – their public sectors accordingly to enable the delivery of integrated services. This demands strong political and managerial leadership, and a will to change traditional administrative and cultural thinking within the public sector as a whole and among civil servants. The country cases illustrating approaches to addressing lagging user take-up shown in Chapters 1 and 3 are all examples of transformational processes in progress (see Table 5.1). One of the outcomes of the public sector transformation is improved public service delivery, which addresses individual users' needs. Better services addressing user needs subsequently lead to higher user take-up and satisfaction.

Table 5.1. **Approaches to user-focused service transformation**

Type of transformation	Country case examples
Organisational transformation	
Simplification of service organisation (*e.g.* service delivery integration making it easier to find services and to access them through for instance portals.)	• Box 1.1 Australia: eCensus 2006. • Box 1.2 Canada: Service Canada – a one-stop-shop for public services. • Box 3.4 Denmark: The Danish Citizens' Portal – *borger.dk*. • Box 3.5 Hungary: The Government Portal – *www.magyarorszag.hu*. • Box 3.6 Mexico: The Mexican Citizen Portal and the Stockholm Challenge. • Box 3.7 United Kingdom: Directgov. • Box 3.8 United States: The federal portal – *USA.gov*. • Box 3.31 The Netherlands: Multi-channel strategy of the IB-Groep (Agency for Educational Grants Administration). • Box 3.32 Denmark: Mandatory use of digital channels through proactive channel management.
Service integration (*e.g.* organisational integration of services according to specific user situations – such as life events.)	• Box 3.3 Italy: "Reti Amiche" – the "friendly networks" of service providers. • Box 3.9 Belgium: Transforming the social security sector. • Box 3.10 Germany: German Administration eServices Directory (DVDV). • Box 3.13 Turkey: Reducing administrative costs in the Social Security Organisation. • Box 3.16 Italy: A "life event" approach to service delivery. • Box 3.17 Slovenia: State Portal with "life-event" organised services. • Box 3.18 United Kingdom: Customer journey mapping – transforming Free School Meals. • Box 3.19 United States: Improving disaster assistance through a one-stop-portal.
Cultural transformation	
Cultural harmonisation (*e.g.* horizontal collaboration and co-operation resulting in the development of coherent common views, understanding and approaches.)	• Box 1.3. United Kingdom: Shared services – making e-government service cost-effective. • Box 3.1 Denmark: Empowering the local level to deliver better services – local service centres. • Box 3.2 Portugal: Creating coherent service delivery through simplification. • Box 3.11. The Netherlands: Reducing administrative burden by 25%. • Box 3.12. Mexico: Increasing transparency and accountability with e-government. • Box 3.26. New Zealand: Web 2.0 social networking tools. • Box 3.27. Malta: Targeting user take-up and user participation.
Awareness raising – winning hearts and minds" (*e.g.* pro-active marketing of –or "campaigning" for – a coherent and common view of public sector service provision within the public sector.)	• Box 3.15. Belgium: Accessibility, the disabled and e-government. • Box 3.20. Hungary: Improving user take-up through digital divide policies. • Box 3.21. Mexico: Targeting the digital divide through the e-Mexico initiative. • Box 3.22. Germany: E-Government 2.0 – a user-centric e-government strategy. • Box 3.23. Denmark: E-Engaging citizens in political processes. • Box 3.24. Germany: User-centric approach to e-participation and e-inclusion. • Box 3.25. Hungary: eGames for public engagement. • Box 3.28. Korea: Awareness raising – a priority in its new national plan (2008-11). • Box 3.29. Germany and the United States: Marketing e-government. • Box 3.30. United Kingdom: Increasing user take-up through "Connect to your council" take-up campaign. • The Dutch eGovernment "WebWise" Awards (see Annex A: Netherlands).

Source: OECD 2009.

Table 5.1 shows that countries are using user-focused transformation approaches in order to achieve higher user take-up. Organisational transformation are seen by many countries as an easier way towards improving

service quality and performance,* but countries are also recognising the importance of pursuing in parallel a cultural transformation – both within the public sector as a whole as in society at large.

All countries are using a transformation approach that includes simplifying the public service organisation. Some countries (*e.g.* federal organised countries) have legal or constitutional challenges for moving towards integration of services due to, for example, different legal responsibilities or organisational and technical barriers (*e.g.* fragmentation of service delivery across the public sector and lack of interoperability and standardisation) that makes service integration challenging.

Cultural transformation is a challenge that can be seen in the country cases listed in Table 5.1: organising service delivery in a whole-of-public-sector perspective demands firm political and managerial leadership and a strong focus on the important change management challenges (*e.g.* resistance to change, clear communication, motivation of staff, etc.) that often emerge in mature organisations, such as the public administrations of most countries. Successful cultural transformation is seen in countries where strong political and managerial leadership is present and often also where the sense of need for change within the public sector among civil servants and among external stakeholders (citizens and businesses) is significant.

The importance of being able to track user take-up and satisfaction has increased significantly since the early 2000s as governments need to know more about the users in order to improve the performance of the public sector. Measurement frameworks are being set up to provide governments with evidence of the outcomes of their e-government investments. However, the few results from the limited measurements in many OECD countries show, generally speaking, that there is potential for improvement in user take-up.

Cross-cutting take-up measures

The cross-cutting user take-up measures seen in the different peer reviewed OECD countries (see also Annex A), show that coherence and simplicity across the public sector are important general learning points to take note of if national e-government programmes are to be successful with high user take-up of e-government services. Successful e-government programmes should from the start have their target groups as the focus: who is the programme going to benefit and how can the impact be maximised?

* The report *E-Government as a Tool for Transformation* (GOV/PGC(2007)6), 28 March 2007, shows that the impact of public sector transformation is experienced mainly as organisational and business process changes. (See Chapter 1.3 and Table 4 of the report.)

Looking at the experience of OECD countries, elements of successful user-focused e-government programmes include:

- **Simple organisation:** A single government website acting as a one-stop-shop for e-government services makes it easier for users to find and access those services. Creating a simple organisational hub for e-government services, bundling them in a few (rather than many) portals has simplified users' overview of and access to services. Such an approach underscores the importance of having a fully integrated back-office where connectivity and inter-operability are secured for cross-organisational service solutions. Examples of countries pursuing a simple organisation of services are: Canada (Box 1.2. Canada: Service Canada – a one-stop-shop for public services), Denmark (Box 3.4. Denmark: The Danish Citizens' Portal – *borger.dk*), Hungary (Box 3.5. Hungary: The Government Portal – *www.magyarorszag.hu*), Mexico (Box 3.6. Mexico: The Mexican Citizen Portal and the Stockholm Challenge), the United States (Box 3.8. United States: The federal portal – *USA.gov*), and the United Kingdom (Box 3.7. United Kingdom: *Directgov*).
- **Recognisability and marketing:** A strong brand for e-government services which is used proactively in targeted marketing efforts has proven to be an important prerequisite for increased user take-up. One of the recurrent challenges seen in a number of different national surveys is that users are often not aware of the available services. Examples of countries pursuing a pro-active marketing effort in order to raise the profile of their e-government services are: Korea (Box 3.28. Korea: Awareness raising – a priority in its new national plan [2008-11]), Germany (Box 3.29. Germany and the United States: Marketing e-government), Portugal (Box 3.2. Portugal: Creating coherent service delivery through simplification), the United Kingdom (Box 3.30. United Kingdom: Increasing user take-up through "Connect to your council" take-up campaign), and the United States (Box 3.29. Germany and the United States: Marketing e-government).
- **Same "look and feel":** Ensuring that common navigation and search architectures are used across all content and services heightens recognisability and improves usability. Countries do recognise the need for pursuing a goal of same "look and feel", but none of the OECD reviewed countries has yet, on a whole of public sector level, implemented an integrated front-office for the e-government services provided to citizens and businesses.
- **"Killer applications":** A focus on high-volume, high-frequency transactional services – use of high-impact and high-demand applications to drive take-up and usage – is necessary to capture as many e-government users as possible. Some OECD countries combine this with targeted channel management, including making some e-government services mandatory. Examples of countries are: Belgium (Box 3.9. Belgium: Transforming the

social security sector), Denmark (Box 3.32. Denmark: Mandatory use of digital channels through proactive channel management), the Netherlands (Box 3.31. The Netherlands: Multi-channel strategy of the IB-Groep [Agency for Educational Grants Administration]), and Turkey (Box 3.13. Turkey: Reducing administrative costs in the Social Security Organisation).

- **Relevance:** Ensuring that targeted user context and topics are used at all levels of navigation around which government services are packaged to meet specific user demand, will improve the perception of relevance of the services to users. This is particularly important when governments use a "life-event" approach to service organisation. Examples of countries are: Italy (Box 3.16. Italy: A "life event" approach to service delivery) and Slovenia (Box 3.17. Slovenia: State Portal with "life-event" organised services).
- **Inclusive service design:** Inviting users to participate in and contribute to service design will ensure (on- or offline) services a focus on user needs and demands. This approach is not broadly used in OECD peer reviewed countries even though the use of participative tools is slowly emerging as a way to engage citizens in consultations (*e.g.* New Zealand's use of Web 2.0 tools – Box 3.26. New Zealand: Web 2.0 social networking tools).

To be truly user-focused, services should be organised around a holistic rather than an agency or service-specific view of the user. This requires increased collaboration and co-ordination among government agencies. It also has numerous benefits such as increasing the take-up of e-services, providing a higher-quality "experience" for users, and creating greater efficiency gains.

Towards an innovative citizen-centric public service delivery?

The paradigm shift in e-government perspective is caused by the limited impact of government investments in developing and implementing e-government services over the past ten years. Now that many services have been put on line, governments want to reap the full benefits of e-government implementations. The limited impact on user take-up is now targeted on focusing the attention on user needs of and satisfaction with public service delivery, and by systematically tracking users to better understand their needs. Initiatives addressing the latter have only been taken up by OECD countries since the mid-2000s.

Countries have moved towards rethinking not just their Internet-based service delivery, but their service delivery in general without regard to delivery channel – to meet the users with services on their terms. The goal is to provide services that fit each individual user, whether the user is a citizen or a business. Experience from peer-reviewed OECD countries shows that there is a need to rethink the division of responsibilities and organisational structures,

and to change the historically bound administrative cultures in the public sector which are yet to adopt a whole-of-public-sector service delivery view. Trends from country experiences have been identified to raise users' awareness of access to and use of e-government services.

As OECD countries increasingly focus on the use of e-government by citizens, it is necessary to further explore how governments can set up frameworks for designing, developing and delivering fully integrated and innovative services, whether on- or offline. One of the recurrent challenges experienced by OECD countries is the necessity to have an integrated front- and back-office that supports and enhances integrated service delivery without regard to which authorities have the formal responsibility for the services provided. The importance of being able to provide these integrated services in balance with respecting privacy and data protection laws and guidelines in the public sector as a whole, is on the political agenda of many countries. In summary, countries are struggling to strike the right balance between efficiency and effectiveness, service quality and delivery, user-friendliness (including privacy and ICT security considerations) and increasing public welfare, among others.

It is clear that the discussion on public service delivery is not focused on e-government tools, processes and procedures but on outcomes – that is, on users and their needs, and how governments can meet these needs. The paradigm-shift from government-centric to a citizen-centric view of innovative public service delivery making everyday life easier, is a reality and will need to be explored further in future research.

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ANNEX A

OECD Country Studies on User Take-up

This annex provides a description and an analysis of user-focused e-government in selected OECD e-government country studies. The descriptions and analyses are built on excerpts from published OECD e-government country studies.

The countries represented in this annex are:

- Belgium – from OECD (2008), *OECD e-Government Studies: Belgium*, OECD, Paris.
- Denmark – from OECD (2006), *OECD e-Government Studies: Denmark*, OECD, Paris.
- Hungary – from OECD (2007), *OECD e-Government Studies: Hungary*, OECD, Paris.
- Mexico – from OECD (2005), *OECD e-Government Studies: Mexico*, OECD, Paris.
- Netherlands – from OECD (2007), *OECD e-Government Studies: Netherlands*, OECD, Paris.
- Norway – from OECD (2004), *OECD e-Government Studies: Norway*, OECD, Paris.

Belgium

The governments in Belgium have for several years focused on developing their own e-government services for citizens and businesses. In addition to services per government, emphasis was put on a number of sectors of activity with (potentially) high-volume online transactions, like social security or tax administration. To a greater extent than putting services on line, Belgium has deliberately been focusing on back-office improvements and is by consequence currently facing a number of challenges in attaining policy goals of delivering measurably better and less burdensome services around user demands and user needs. These challenges include:

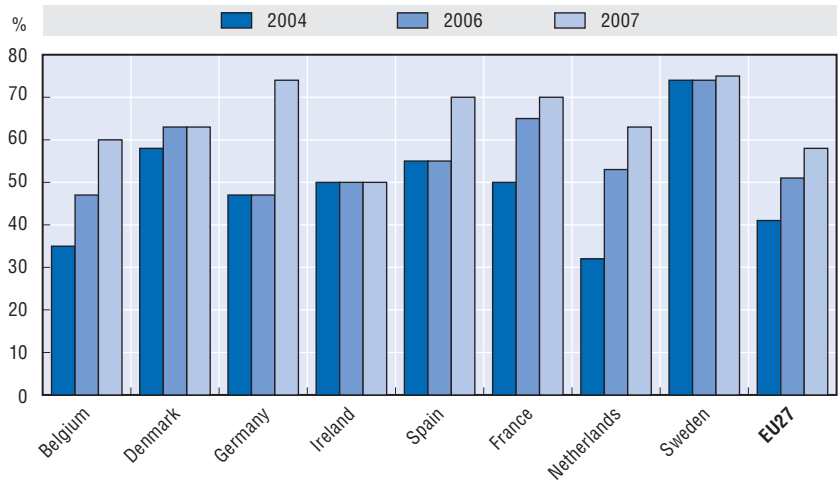
- increasing take-up;
- attracting a wider range of users;
- overcoming the observable fragmentation and varied quality and sophistication of e-services (particularly at the municipality level).

Impact assessment of e-government policy

With respect to full online availability of services for businesses and citizens, Belgium has recently made significant progress (Figure A.1). Within three years, Belgium developed from one of the laggards in an EU comparison to above average supply of e-government services (Belgium 60%, EU27 average 58% of e-government services online). This confirms the efforts of all Belgian governments to improve e-government services in terms of supply.

Figure A.1. **Development of total availability of e-government services, 2004-2007**

Belgium, OECD benchmark countries, EU27



Note: Data for October 2004, April 2006 and April 2007.

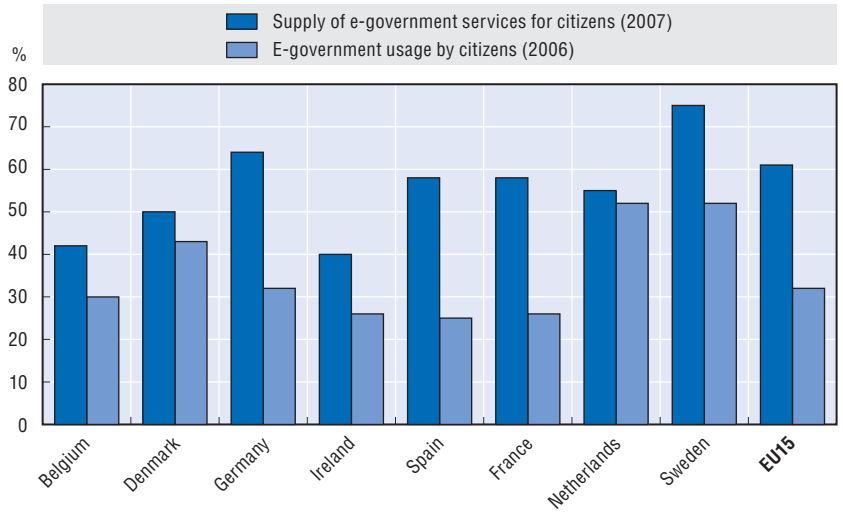
Source: OECD compilation, based on CapGemini Survey, "The User Challenge: Benchmarking the Supply of Online Public Services – 7th Measurement", prepared for the European Commission, 2007, *http://ec.europa.eu/information_society*.

For citizens, however, Belgium's **online total supply** is at 42% and therefore well below the leading EU benchmark countries such as Denmark, Sweden or the Netherlands and the EU15 average (Figure A.2). Uptake of e-government services in Belgium in 2007 has just reached 30% according to Eurostat data. This strongly suggests that all levels of the public sector should focus on the development of a better delivery strategy of e-government services towards citizens, and focus on the communication and promotion of e-government services by developing a compelling story to shift channel.

In contrast to benchmarking results for citizens' e-government services, **Belgium has been among the leaders in supply of e-government services for businesses** for a few years (Belgium has 88% of supply). The 2007 data confirms

Figure A.2. **Comparison of supply and usage of e-government services by citizens, 2007**

Belgium, OECD benchmark countries, EU15



Note: Data of e-government usage for Sweden is from 2005.

Source: OECD compilation, based on CapGemini Survey, "The User Challenge: Benchmarking the Supply of Online Public Services – 7th Measurement", prepared for the European Commission, 2007, *http://ec.europa.eu/information_society*.

this (Figure A.3). Uptake of e-government services by businesses has only reach 59%, however. Given the significance to growth, innovation within the economy and direct savings that can be achieved by focusing on businesses, this strongly suggests a prioritisation of the business segment.

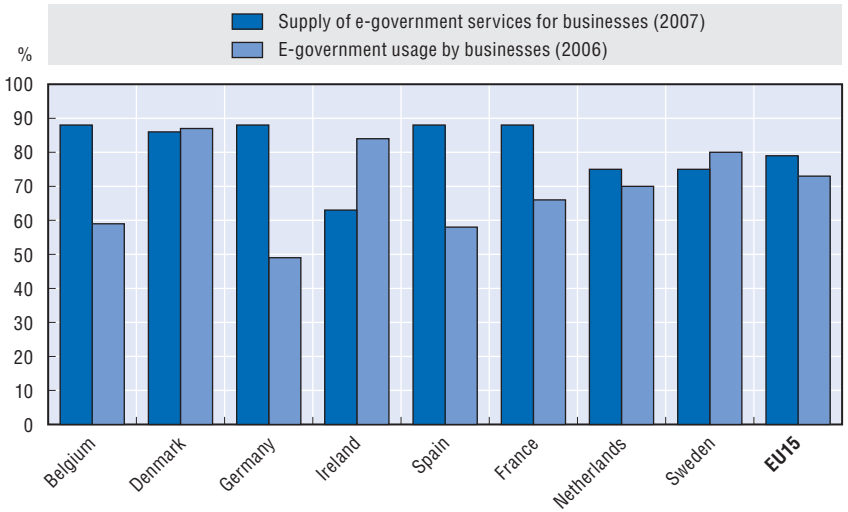
Online sophistication of e-government services for citizens in Belgium is comparable to its EU benchmark countries (Figure A.4). As many other OECD countries Belgium is facing the challenge to achieve higher take-up of e-government services. There seems to be a positive correlation between sophistication and usage of e-government services, hence sophistication and accessibility of e-government services should be carefully monitored across Belgian governments.

Whilst **online sophistication of e-government services for businesses is high** in Belgium (Figure A.5, Belgium ranks at 94%), leading countries in online sophistication of e-government services for businesses such as Denmark, Sweden and Ireland display significantly higher uptake figures (Denmark [87/87%], Sweden [89/80%], Ireland [86/84%]). A review of the barriers to uptake for businesses and incentives for uptake should be undertaken.

While the mixed pictures revealed in such comparisons indicate clear room for improvement, it is important to consider that international

Figure A.3. **Comparison of supply and usage of e-government services by businesses, 2007**

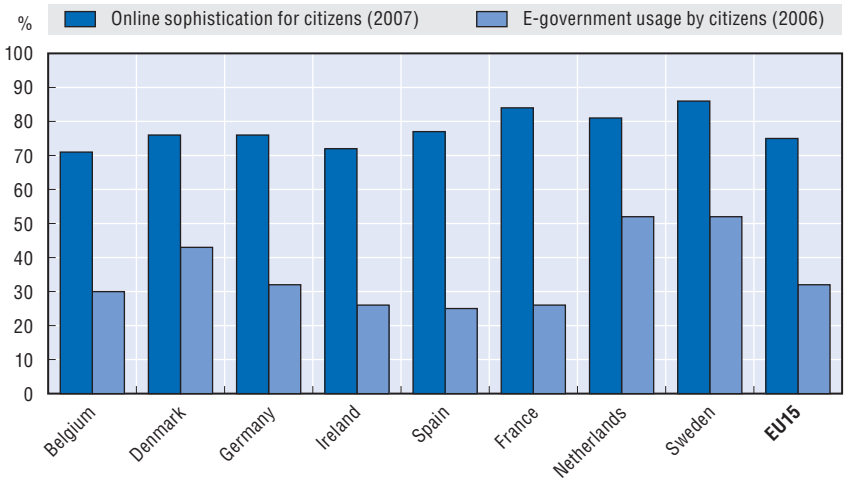
Belgium, OECD benchmark countries, EU15



Source: OECD compilation, based on CapGemini Survey, "The User Challenge: Benchmarking the Supply of Online Public Services – 7th Measurement", prepared for the European Commission, 2007, *http://ec.europa.eu/information_society*.

Figure A.4. **Comparison of usage and sophistication of e-government services for citizens, 2007**

Belgium, OECD benchmark countries, EU15

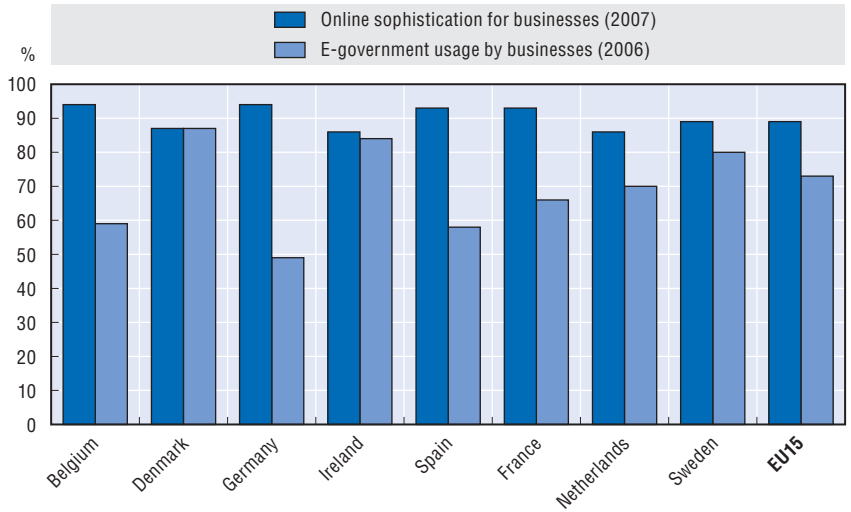


Note: Data of e-government usage for Sweden is from 2005.

Source: OECD compilation, based on CapGemini Survey, "The User Challenge: Benchmarking the Supply of Online Public Services – 7th Measurement", prepared for the European Commission, 2007, *http://ec.europa.eu/information_society*.

Figure A.5. **Comparison of usage and sophistication of e-government services for businesses, 2007**

Belgium, OECD benchmark countries, EU15



Source: OECD compilation, based on CapGemini Survey, "The User Challenge: Benchmarking the Supply of Online Public Services – 7th Measurement", prepared for the European Commission, 2007, *http://ec.europa.eu/information_society*.

benchmarks cannot always appropriately take into account the particularities of a country:

- E-Government in Belgium has been a dispersed activity with significant differences in scope and speed from all Belgian governments. In international benchmarks, national indices tend to miss developments at sub-national levels. Also, weighting and compiling measures into aggregated whole-of-Belgium e-government indices that adequately reflect the overall performance of Belgium has proven difficult.
- In Belgium, e-government development has focused mainly on technical solutions and back-office re-engineering. Belgium's position therefore may vary from one international benchmarking exercise to another, depending on whether the ranking's focus is on front-office or back-office performance.
- Throughout the past years, Belgium has been among the more developed e-government players within the OECD. In international benchmarking, the relative and absolute growth potential of more developed countries can be restrained, as they have already benefited from harvesting "low-hanging fruits" and have fewer possibilities to leapfrog stages of e-government development.

User knowledge

OECD country experiences have shown that successful services should be based on a deep understanding of users' online behaviour. Adding up to the encountered difficulties in measuring often intangible features (such as user satisfaction), governments simultaneously need to gather knowledge about various user groups: citizens, businesses, and governments. Traditional metrics such as counting website hits and page impressions are not enough. Monitoring and analysing patterns of use, traffic volumes, user likes and dislikes, user satisfaction and attitudes towards data use, seasonal variation, audience breakdown, e-mails and feedback, and use of search terms are all important elements of understanding how users consume electronic services. Such analysis should feed directly into service development and delivery so that services better match user expectations.[1]

Belgian governments are increasingly willing to make attempts to create a flexible and dynamic government that is receptive to the needs of citizens; overall, however, there does not seem to be a clear and consistent approach to the qualitative and quantitative assessment of users' demands, needs, and satisfaction – despite the limited number of citizens and businesses who effectively communicate with governments online.

Monitoring and evaluating user demand, user needs, and user satisfaction are recent concerns in Belgium, especially when it comes to directly involving end-users of e-services in assessments. According to OECD interviews and the survey, governments are, however, increasingly looking into ways of determining e-government demand, and user needs and satisfaction.

With regards to determining demand for online services, most Belgian governments seem to use rather qualitative approaches such as user panels and customer surveys. Such methodologies can support Belgian governments in better identifying features of user demands which are crucial for service design: existing and future service applications need to reflect user demands to ensure take-up. Only Brussels-Capital Region is taking a more quantitative approach towards assessing user demands, mainly relying on government statistics.

Evidence of user demand

The few user studies that directly involve citizens reveal that citizens demand more and better-quality e-government services. Examples include the recent *Fed-e-View/Citizens* survey – to back up its user focus, the Federal Government has expanded its Fed-e-View survey in 2005 to include citizens.[2] The survey focused on four different domains (e-inclusion, e-government, e-society, and e-democracy), and questioned focus groups consisting of both e-government users and non-users, over a period of 15 months. The results emerging from the survey have been shared across the country with the intention to increase the

focus on user in e-government development in the Belgian governments. The sharing of results may help detect synergies in the diversity of approaches to user centricity.

According to the *Fed-e-View/Citizen* study on user needs, priorities for Belgian citizens are:

- **Rapidity and flexibility** (in terms of location and time of access). Electronic services are seen as an advantage to Belgian citizens, particularly with respect to the efficiency increases they can bring. However, the convenience of any-time, any-place access needs to be blended with the traditional channels currently available to citizens in order to increase the flexibility of the system.
- **User-friendliness** of electronic services is a key element to citizens, who are willing to use electronic services if they provide an easier alternative to traditional channels. This should also take into consideration digital literacy in general, as many citizens are unfamiliar with the way to use government electronic services.
- **Personalised services** are crucial if the digital channel is to become popular in Belgium. The Belgian citizen is more interested in accessing relevant, personalised services online than having to go through the complexities of the Belgian government to gain accesses to services. In short, they are more concerned with the service itself, as opposed to which government is responsible for it.

Although there are individual efforts taking place to determine the specific needs of users and the evolution of user demand, OECD interviewees cited a lack of shared research methods to track and incorporate user demand, needs, and satisfaction, as well as the perceived lack of marketing and promotion of existing e-services.

Citizen satisfaction findings

Findings on citizen's satisfaction with e-government services reveal the following three conclusions. Firstly, 44.1% of respondents had never used an e-government service. Secondly, a large proportion of respondents (39%) claimed that they often do not know where to look for information. Finally, less than one quarter of the total population use e-government services, but one third of the non-users would be interested in doing so.

Table A.1 shows data about problems users have encountered when using electronic services, such as filling in electronic forms, or submitting their taxes. The data shows that 44% of respondents had never used an e-government service, and 25% of respondents claimed to have had no problems using these services. This raises significant questions concerning demand for e-government services in Belgium. The high percentage of the population not interested in

Table A.1. **Barriers for using e-government services**

		% people
Which of the following problems have you found when using electronic services (*e.g.* form-filling, declaration of taxes) from the government on the Internet?	I have not used a service	44
	No problem	25
	Have to give my data repeatedly	11
	It's hard to find the service	10
	Never find a full solution online, meaning I have to go to the office	10
	Often don't know where to search	10
	Possible to request things via Internet, but not action them	10
	Other	4

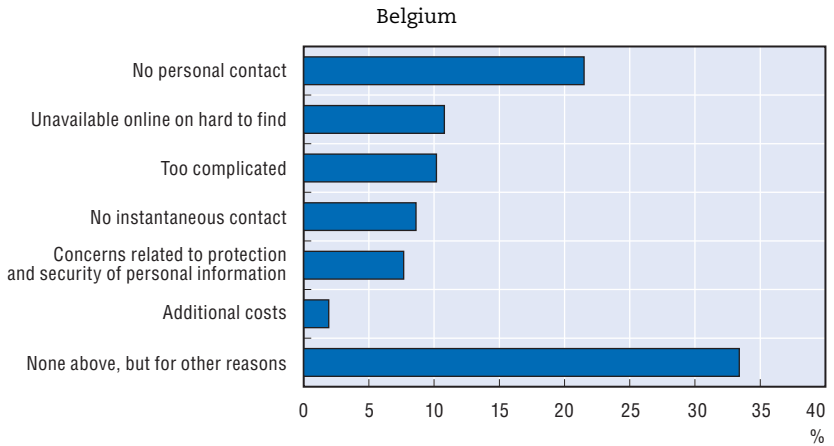
Source: Fed e-View, 2006.

e-government services is a major challenge for Belgium and the Belgian governments. It signals a need for targeted communication activities with the population on the existence of services, and the advantages of using them.

Further research confirms Belgian citizens' cultural preference for direct contact when interacting with governments: for all Belgian governments, the main reason for not being interested in e-government services is "no personal contact" (22% of all Internet users who are not interested in e-government; Figure A.6). Reasons may include the public sector structure, the high number of municipalities, cultural differences in administrations due to language and region, as well as the high number of public sector staff.

Table A.2 shows respondents thought of the information that was provided on the sites they had visited. The largest proportion of respondents

Figure A.6. **Internet users' reasons for not being interested in e-government services**



Note: Individuals aged 16 to 74 who accessed the Internet within the three previous months.

Source: OECD compilation, based on National Belgian Statistics Institute, ICT Households Survey, 2006, *www.statbel.fgov.be*.

(39%) claimed that they often do not know where to look for information. Hence, efforts by Belgian governments in developing more user-friendly websites or organising information according to life-cycle events have not necessarily impacted user experience at this stage.

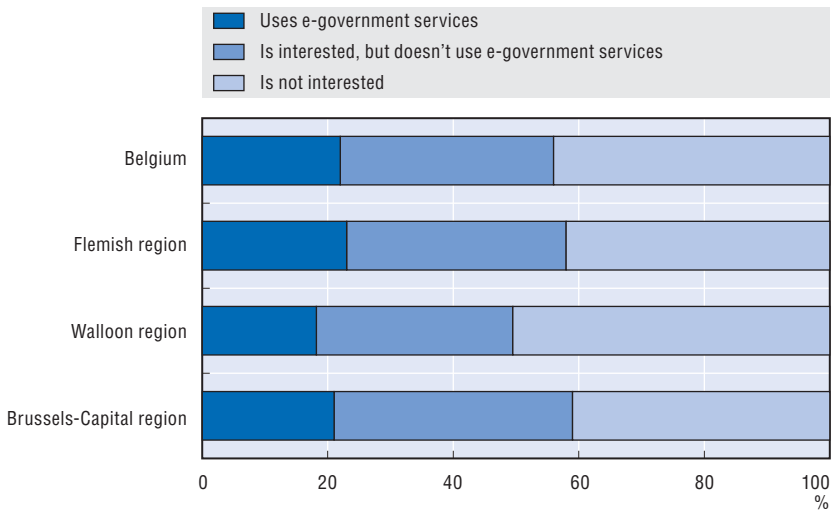
Table A.2. **Barriers to information search**

		% people
Which of the following problems have you encountered when searching for information from the government on the Internet?	Don't know where to find information	39
	No problem	32
	I never get a full response, and therefore must call or go to the government offices	23
	I find the information difficult	23
	Not personally oriented	19
	The information I require is not online	13
	Language is too difficult to understand	11
	Other	4
	The information is not trustworthy	4

Source: Fed e-View, 2006.

Figure A.7 shows that there is a high potential for increasing user interest in and usage of e-government services.

Figure A.7. **Interest in using e-government services**
Belgium, Flemish Region, Walloon Region, Brussels-Capital Region



Note: Individuals aged 16 to 74 who accessed the Internet within the three previous months.
Source: OECD compilation, based on National Belgian Statistics Institute, ICT Households Survey, 2006, *www.statbel.fgov.be*.

Maximising the benefit of investment in e-government is a high priority for Belgian governments. The effective marketing of e-government services and products not only contributes to their successful development, but also helps optimise citizens' level of awareness, acceptance and usage of e-government products and services. The finding that approximately one third of citizens would be interested in using e-government services deserves attention, motivates more effective marketing of e-government services and products.

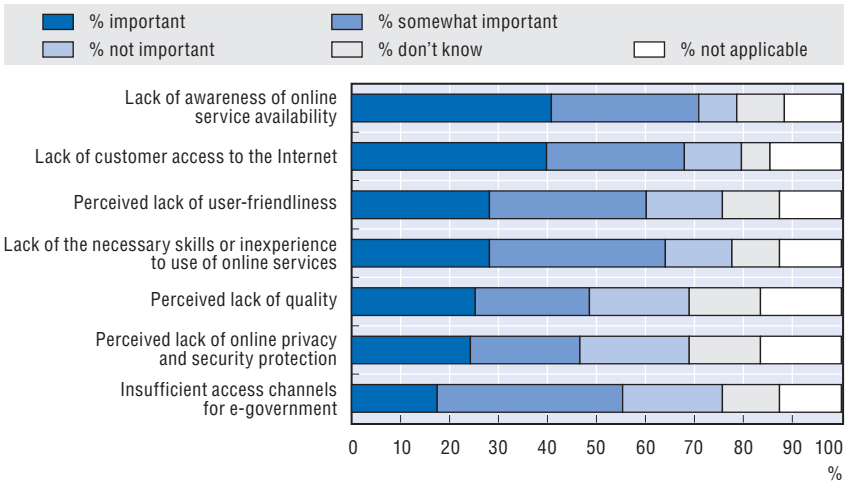
Marketing and promotion of e-government services

The marketing and promotion of e-government services are important to increase the level of visibility and knowledge of the advantages of electronic services. This aspect of e-government development is often underplayed in national e-government strategies and has not sufficiently been considered when developing policy and strategies – even less when implementing and disseminating e-services solutions. Figure A.8 shows the case for increased and consistent marketing towards users.

Marketing and promotion is often connected to a specific public organisation's wish to implement a proactive channel management to convince users – whether they are citizens, businesses, or government themselves – to make use of the electronic service channels (*e.g.* wireless

Figure A.8. **Perceived challenges to take-up of e-government services by Belgian officials**

All governments



Survey Question: 6.10 a) How important are the following challenges in constraining citizen demand for the online services provided by your organisation?

Source: OECD E-Government Survey: Belgium, 2007.

access channels, telephone lines, cable, etc.) without regard to interface (mobile phones and other mobile entities, television, computer, etc.).

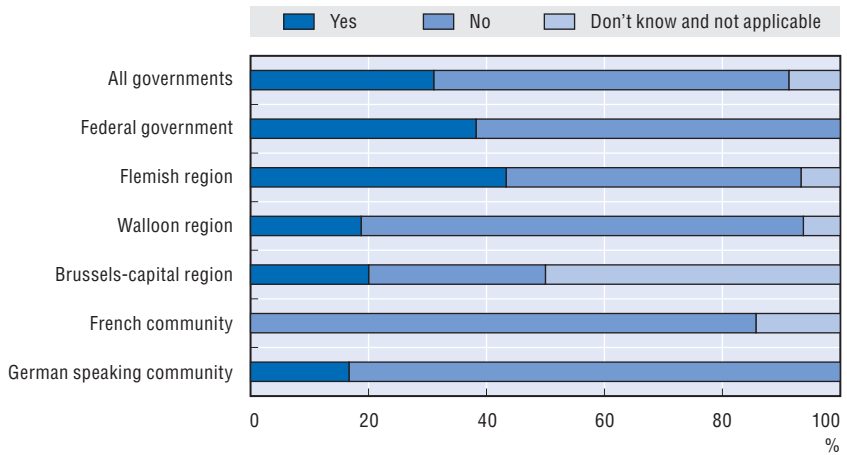
Belgian governments have in general made only limited efforts on marketing and promotion of e-government services. Similarly, other governments are increasingly focusing on improving marketing and communication of their e-government efforts. Benchmarks and indicators are very recent and might help raise political awareness of e-government by catching decision makers' attention, given their tight political agendas.

The OECD survey (Figure A.9) shows that the general impression among the governments is that there is a lack of marketing and promotion strategies across the public sector: 60% of respondents answered "no" and only 31% answered "yes" to questions on whether a marketing strategy exists for their own e-services. Respondents in the Federal Government and the Flemish Region seem to be more aware marketing strategies (38% and 43%, respectively, answered "yes") while the Brussels-Capital Region, the Walloon Region, the German-speaking Community, and the French Community are less aware of such a strategy (20%, 19%, 17%, and 0%, respectively, answered "yes").

OECD interviewees pointed to limited clear communication from e-government leaders about e-government benefits, stating that internal and external communications and marketing could be improved. These perceptions were confirmed by the OECD survey, illustrating that only about half of government institutions communicate their e-government goals to citizens and businesses. Also, two-thirds of survey respondents indicated that

Figure A.9. **Marketing strategies for e-services in all Belgian governments**

All governments



Survey Question: 3.4 a) Do you have a marketing strategy to market your e-services?
Source: OECD E-Government Survey: Belgium, 2007.

they currently do not have a marketing strategy to promote their e-government services.

In order to raise awareness of the availability and value of e-services, Belgian governments need to further promote "good practices" and exchange experiences through events like the yearly Belgian E-Government Congress and Awards. During this event representative of different levels of government exchanged ideas and experiences.

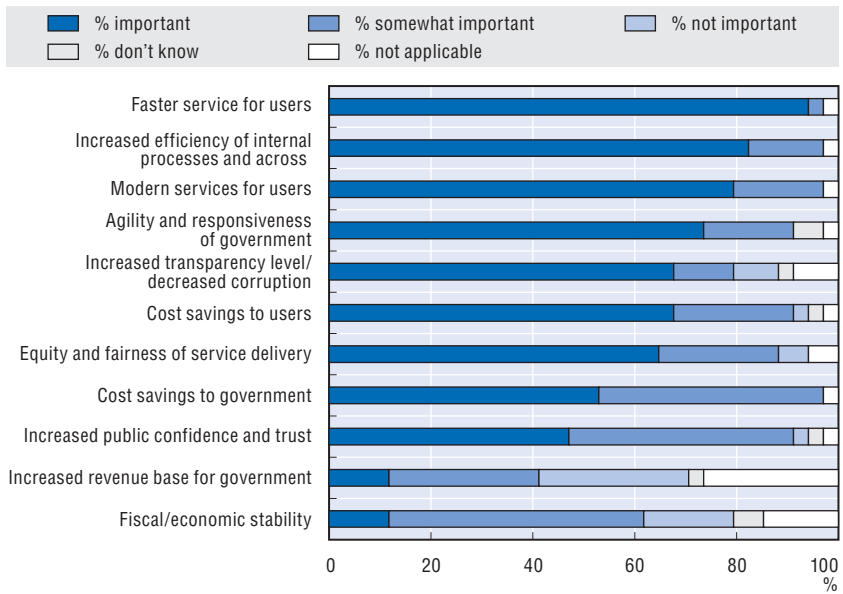
Perceived and communicated benefits of e-government services

E-Government strategies and action plans of all Belgian governments reflect the emerging political aim of more user-focus by acknowledging the necessity to create seamless services through back-office interoperability laid out in collaboration and co-ordination efforts.

The Federal Government emphasises areas such as: cost savings to government (97%), modern services for users (97%), and increased efficiency of internal processes and across government (97%) (Figure A.10). User focus is also dominant for federal agencies (faster service for and cost savings to

Figure A.10. **Perceived benefits of e-government services to users by federal officials**

Federal government



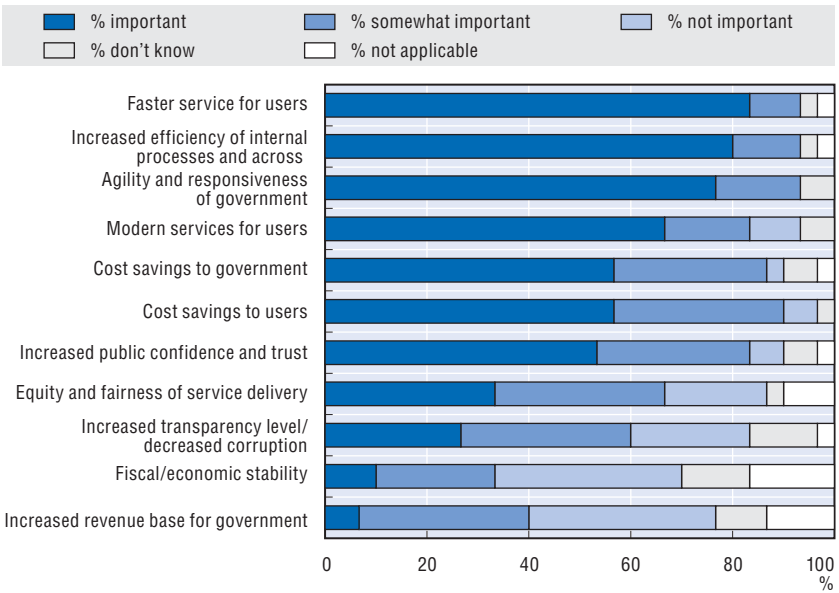
Survey Question: 6.4 a) How important is e-government to achieve the following benefits?
Source: OECD E-Government Survey: Belgium, 2007.

users), with a trend towards a main focus on internal efficiency and effectiveness of government businesses.

The **Flemish Region** emphasises areas such as: faster service for users (93%), agility and responsiveness of government (93%), and increased efficiency of internal processes and across government (93%) (Figure A.11). In addition to becoming more responsive to user needs, it also aims to harvest efficiency and effectiveness gains within government.

Figure A.11. **Perceived benefits of e-government services to users by Flemish officials**

Flemish Region



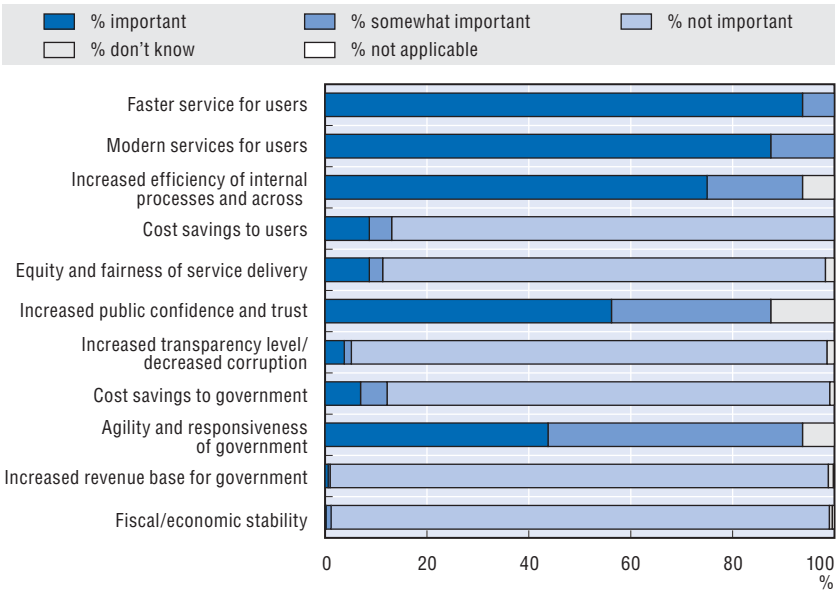
Survey Question: 6.4 a) How important is e-government to achieve the following benefits?
Source: OECD E-Government Survey: Belgium, 2007.

The Walloon Region emphasises areas such as: modern services for users (100%), faster service for users (100%), and increased efficiency of internal processes and across government (94%) (Figure A.12). Its emphasis on modernising public services and becoming more responsive to users is significant, while the cost savings to the government (88%) is high but comparatively lower on the priority list according to the survey.

However, OECD data does not suggest agreement among Belgian governments on the benefits e-government services can provide to users. The **Brussels-Capital Region** emphasises areas such as: efficiency of internal processes and across government (100%), increased transparency level/

Figure A.12. **Perceived benefits of e-government services to users by Walloon officials**

Walloon Region



Survey Question: 6.4 a) How important is e-government to achieve the following benefits?
Source: OECD E-Government Survey: Belgium, 2007.

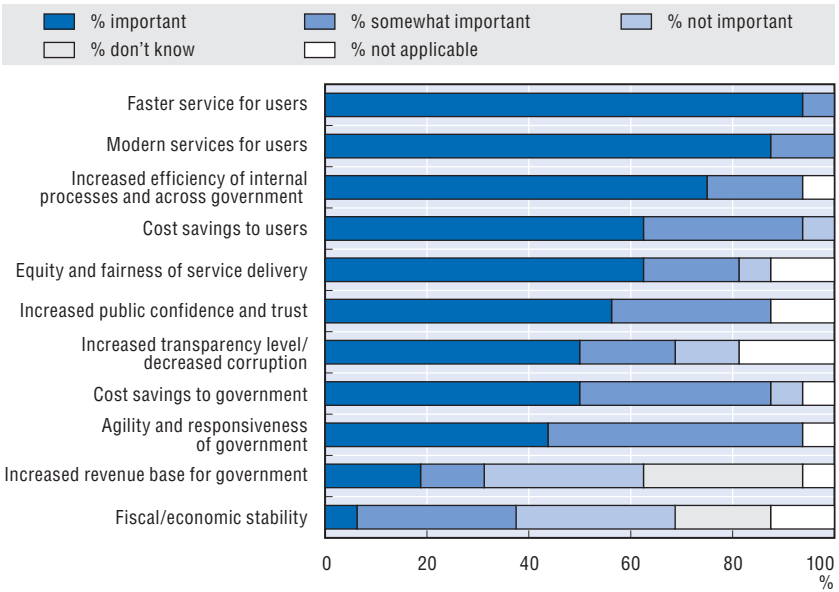
decreased corruption (100%), and modern services for users (100%) (Figure A.13). Significantly, it prioritises user-oriented outcomes like faster services and cost savings for users, and the possibility of improving trust in government. These priorities reflect broadly the main concern among the different governments with regard to becoming more user-focused in e-government development and improving the general trust in government through openness and transparency of government actions.

ICT use by politicians

The Internet is not used as a tool for promoting democratic activity by politicians in Belgium: in fact, quite the opposite is the case, with a large majority of politicians hardly using the Internet for any form of information gathering, or communication. A study published by Indigov in February 2005,[3] publicises the results of a Belgium-wide survey of federal, regional, and provincial politicians carried out in 2004-2005 to see what relationship politicians had with the Internet. This study was the first large-scale research project concerning politicians and the Internet in Belgium to investigate their

Figure A.13. **Perceived benefits of e-government services to users by Brussels officials**

Brussels-Capital Region



Survey Question: 6.4 a) How important is e-government to achieve the following benefits?
Source: OECD E-Government Survey: Belgium, 2007.

electronic communication activities with citizens. It was the result of a questionnaire sent out to all 1 251 politicians with published email addresses at the federal, regional, community, and provincial levels, of which 31% (331[4]) responded. These were the main findings:

- 15.9% of 309 respondents claimed to use e-mail for two hours or more per week, rising to 33.3% claiming to spend between one and two hours responding to or writing e-mails. Only 5.5% of those respondents left emailing to their assistants.
- **Citizens seldom use e-mail to contact politicians:** 34% of 306 respondents to the survey claim to receive between one and 10 emails per week from citizens. Only 9.5% of 306 respondents receive more than 100 e-mails per week from citizens.
- Regarding use of the Internet for information gathering or participation in online forums, only 11.1% of 305 respondents claimed to use the Internet for more than two hours per week.

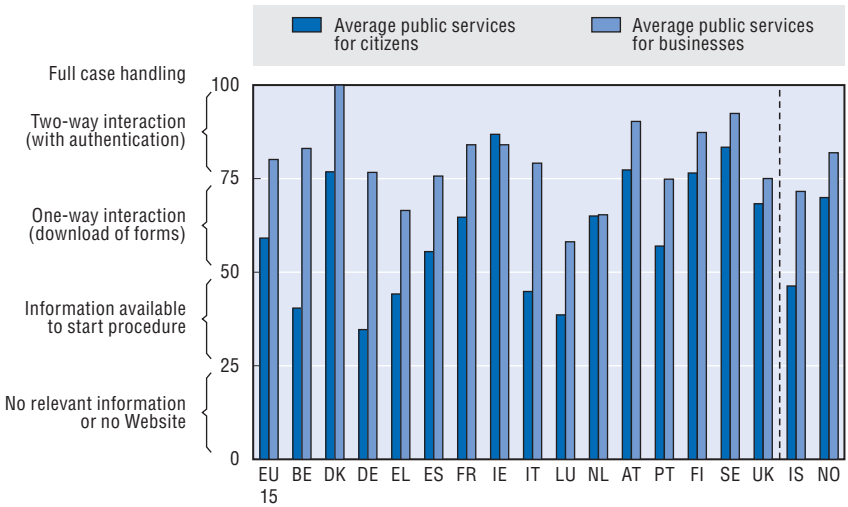
In comparison, other countries where surveys have taken place show a much higher average usage of ICT by parliamentarians.[5] For example, 80% of

Danish parliamentarians spend more than two hours per week using the Internet. Closer to home, 63% of Dutch parliamentarians spend more than two hours on the Internet per week, according to the survey, which was carried out in 2001/2002. This led the authors of the Belgian study to the conclusion that: the Internet is clearly not a Greek agora' for Belgian politicians, and is therefore not used as a space for deliberation or discussion of political issues by politicians. These figures lead to questions about the current demand for e-democracy activity in Belgium, and also about why the demand is so low. At the political level, there needs to be some soul searching to see whether there is interest in moving to a democracy that incorporates some of the interactive aspects of ICT.

Denmark

Denmark has made considerable progress in the area of supply and sophistication of e-government services. In the 2003 European Commission eEurope benchmarking exercise, Denmark ranked first in terms of full availability of public services online, and second in terms of the sophistication of those services. In 2004, according to EU measures, Denmark's online public services for both citizens and businesses were, collectively, the most "sophisticated" (*i.e.* allowed the most interactivity) in Europe (Figure A.14).

Figure A.14. **Sophistication of Danish online public services**



Source: Eurostat (2005), e-Government: Internet based interaction with the European businesses and citizens, *http://epp.eurostat.cec.eu.int/cache/ITY_OFFPUB/KS-NP-05-009/EN/KS-NP-05-009-EN.PDF*.

Government-wide drivers of user-focused e-government

In Denmark, at the all-of-government level, e-government is positioned as an important part of the user-focused public sector modernisation programme. The e-government strategy reinforces this by stressing the role of e-government in providing high-quality services and placing citizens and business at the centre of government. This commitment is made concrete through the various targets and measures established in the strategy.

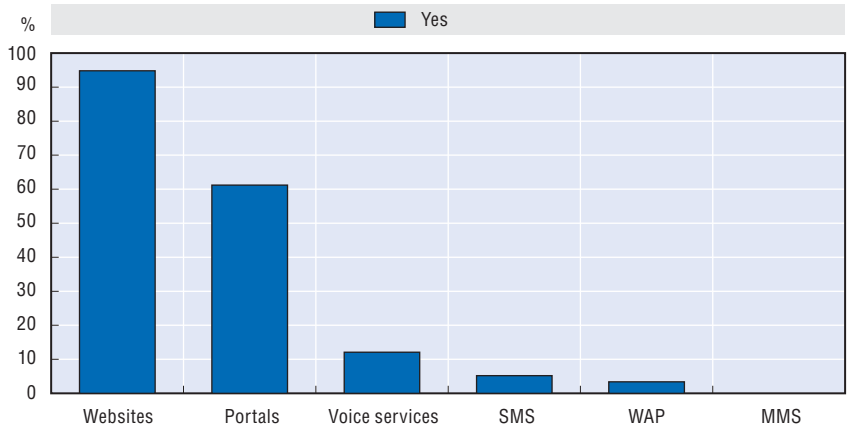
Portal-based delivery strategy for increased take-up

In Denmark the government has neither explicitly directed nor provided guidance to organisations on how e-government delivery should be undertaken (for example, through implementing some form of government-wide "channel management").[6] The most common means of delivering government services is through organisation-level websites, which are used by 95% of all organisations that responded to the OECD survey. Following this, 61% of respondents reported using portals to deliver e-government, after which there was a significant drop to the use of voice services (*i.e.* call centres), and finally mobile-phone-based channels (WAP and SMS).

This strong tendency towards use of Internet-based delivery is consistent with the relatively high capacity of the Danish public to access and use e-government over the Internet, due to the high rates of PC and Internet access. Clearly, websites and portals are the delivery channels that present the least challenge to Danish e-government in terms of achieving equity goals, and are also viewed as the delivery medium where there is the least constraint on user demand.

The significant difference between organisations' delivery of e-government to users of home and/or business PCs (through websites and portals) *versus* users of mobile phones (via WAP and SMS) mirrors the situation in other OECD countries (Figure A.15). With Danes being among the highest users of mobile phones in the world, there is a significant opportunity for Danish e-government to become more user focused by increasing the extent to which e-government services are delivered via mobile phones (so called "m-government"). There is no data available on the channel preferences of Danish e-government users, but it can be assumed that across time more Danes will be interested in having government services accessible via their mobile phones where this is a feasible and appropriate mode of delivery. Among the wide range of issues related to adapting services to mobile delivery that organisations will have to face, one particular government-wide concern will arise from the fact that the current approach to securing e-government through the use of PKI in Denmark is a PC-centric model that may not be compatible with mobile platforms.

Figure A.15. **Use of electronic delivery channels**



Source: OECD E-Government Survey: Denmark.

The large difference in use of organisations' websites *versus* portals indicates a significant opportunity for Denmark to increase the level of user-focus it is already achieving in delivery of e-government. The number of websites in the Danish public sector is large and growing, with more than 2 000 now in service, none of which are subject to any formal or mandatory design guidelines (a recommendation made in the MVTU study of study of citizens' e-government experiences). In their absence, there is potential to present users with a bewildering and inconsistent array of options for accessing e-government, and also to fail to achieve the most efficient and effective use of the Internet as a delivery channel.

Although portals are potentially more user-focused way of delivering online information and services, most existing OECD government portals simply aggregate information and services into a more coherent and conveniently accessed bundle of e-government offerings. Overall, Danish government makes significant use of portals and survey results indicate that this will increase.

Local service delivery strategy

The majority of government service delivery occurs at the local government level in Denmark. The government is working to establish "Local Service Centres" under the authority of each municipality to increase access to these services.

This relationship between e-government and offline service delivery is highlighted in some of the following design principles, which will underpin implementation of the Service Centres:

- digital self-service solutions will be developed for all citizen-related services;

- the most important citizen services provided by regions and the state will be delivered by municipalities, enabled by Service Centres;
- existing barriers to coherent service delivery will be removed;
- a "Service Centre Act" that lays down the rules for the Service Centres' authority regarding service delivery on behalf of other public authorities, including rules for exchange of personal data, will be enacted.

The last two principles in particular will not only enable the functioning of the new Service Centres, but will also further contribute to the ability to implement user-focused services online. Interviews revealed a universally positive attitude towards the Service Centre concept, and clear identification of the relationship between this initiative and many aspects of the Danish e-government programme (and, to a lesser degree, to public sector modernisation). Given this strong support – along with concerns about the plethora of government portals currently in existence, the drive for increased government efficiency, and the strong political and administrative commitment to more user-focused offline service delivery – it is again interesting to note hat Denmark has not yet looked at development of either a multi-channel service delivery strategy or, more narrowly, a complementary government-wide policy and strategy on service delivery through Internet portals and websites.

Building trust in e-government – consulting citizens online

Participants in the OECD survey indicated low levels of user demand in areas of e-government involving consultation or participation in Denmark. This does not mean either that the Danish government has no goals in the broad area of e-engagement of its citizens, or that government organisations have been taking no steps in this direction.

The government has committed to the use of ICT to underpin "creation of a more open, user-oriented and democratic administration" where both citizens and businesses have greater access to the workings of government and are able to participate in strengthened dialogue with politicians.

Other forms of "e-engagement" are also being used in Denmark. A particularly topical example is use of the Internet to facilitate learning and dialogue over the establishment of the new Danish regions, as described below.

Hungary

For several years, Hungary has focused on delivering the 20 e-services benchmarked by the EU. This has led to the delivery of a number of e-services for citizens and businesses within specific sectors, and many services have been put online quickly. A number of EU member states and other OECD

countries have also only within recent years begun to focus on a more user-focused approach to developing e-government services. This has often led to a rethinking of strategies and goals in order to better enable the implementation of principles like "deliver data once, use many times" and "seamless services" supporting more integrated and coherent services in the public sector. Hungary, being a relatively latecomer in the field of e-government, has had the opportunity to begin the development of e-services with a user focused attitude.

Despite the maturity of e-services, Hungary (like most OECD countries) is suffering from lagging user take-up of e-services for citizens. Delivering services online is not a guarantee of user take-up, leaving governments in a dilemma concerning the increasing focus on benefits realisation of e-government investments. It is, however, significant that Hungary offers a large number of online services but has a very low user take-up rate; this implies again that focusing on putting services online is not sufficient to ensure proper take-up. Other parameters must be taken into account, including the challenge of a significant digital divide.

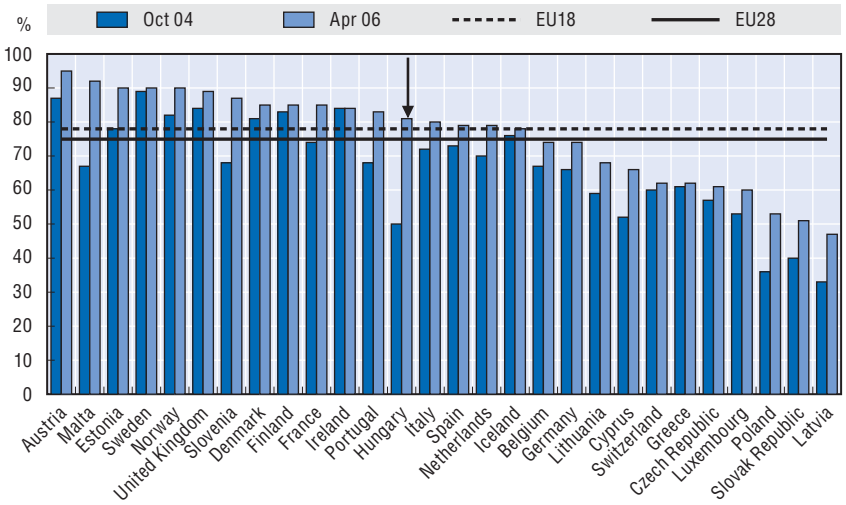
Prioritisation strategy of development of the EU-benchmarked 20 e-government services

Hungary's efforts to show progress in the EU-benchmarked 20 e-services has paid off. The latest benchmarking study released in June 2006 shows that Hungary has significantly improved its overall position since 2004. It has moved from the second quartile (25-50%) to the third quartile (75-100%) in online sophistication of e-services and from the first quartile (0-25%) to the second quartile (25-50%) regarding share of e-services fully available online. Hungary has managed according to these benchmarks to rise above the EU28[7] average for both benchmarks on online sophistication and on percentage of fully online available services. The improved performance in the EU benchmarks is clearly shown in Figure A.16. The figure shows a significant increase in online sophistication from 2004 to 2006. Hungary is now above the EU28 average (75%) and EU10 average (69%), with a total rating of 81% in 2006. In terms of full online availability of e-services, Figure A.16 shows a significant increase from 2004 to 2006, with a total rating of 50% – above the EU28 average (48%) and EU10 average (42%).

Government-wide drivers of user-focused e-government

Even though general user take-up of e-services is low, Hungary has recently seen significant user interest in the "Client Gate" – a transactional gateway to the Hungarian government. A rapidly growing number of citizens and businesses seem to find the "Client Gate" relevant and useful.

Figure A.16. **Country results: Full availability of online services**



Source: Online Availability of Public Services: How is Europe Progressing? Report of the Fifth Measurement, June 2006, prepared by Cap Gemini for the European Commission.

Hungary has – like most OECD countries – established a government portal to make it easier for citizens and businesses to find and access government information, and find relevant e-services offered by different public authorities. All public authorities are obliged by law to put information online by 1 January 2007, so the government portal's role as the key entry point to the public sector for citizens and businesses will further increase.

Concrete examples of user take-up enhancing initiatives are The Client Gate (Box A.1) which offers users access to a secured gateway to access transactional e-government services, and the Hungarian government portal (Box A.2).

Box A.1. **User take-up: The Client Gate**

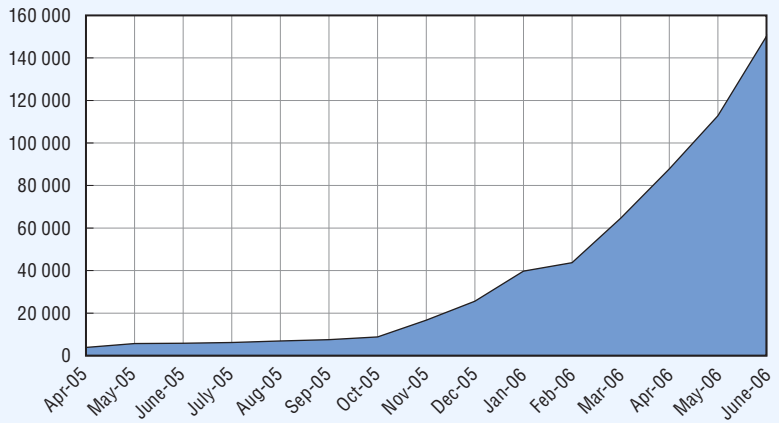
In many cases, services require personal identification before they can be offered online. Often, authentication is specific to each service, requiring users to re-enter their details for each new transaction or service. The result is often that users have several different user identification numbers or names and multiple passwords. While progress is being made in standardising the citizen enrolment process, access to personalised government services can still be complex.

Box A.1. **User take-up: The Client Gate** *(cont.)*

The transactional gateway, the Client Gate, was launched in April 2005 and is accessible via the e-government portal (*www.magyarorszag.hu*). It allows users to securely identify themselves online and gain access to transactional e-government services such as corporation taxes and VAT declaration, declaration and notification of income taxes, personal appointment requests to document offices, driving licence services, car registration services, request and delivery of certificates (birth, marriage), and change-of-address announcements for citizens. The authenticated registration can be requested personally at a documentary office or can be acquired with the help of an electronic signature.[1] It is important to note that central government institutions are obliged to link to the Client Gate authentication system, while local governments have the choice to whether or not integrate their local e-services with the Client Gate.[2]

The number of Client Gate users has increased significantly since its launch in April 2005, to reach a total of 150 147 users at the end of June 2006, as shown in the figure below.

Number of persons registered at the Client Gate (end of month), 2005-06



The Client Gate has in 2008 over 640 000 registered users. Over 80 different public administration proceedings can be initiated in the virtual document office, the most popular of which is making appointments to the document office, used approximately 230 000 times in 2007.

1. Electronic Government Centre of the Prime Minister's Office (EKK) (2006), *Az e-Kormányzat Stratégia jövőbeni koordinálási feladata* (Future Co-ordination tasks of e-government strategy), 31 March 2006.
2. Ministry of Informatics and Communications (IHM) (2006), *Elektronikus hatósági ügyintézés mozzanatai és szabályozásuk* (Electronic administrative case handling: elements and regulation).

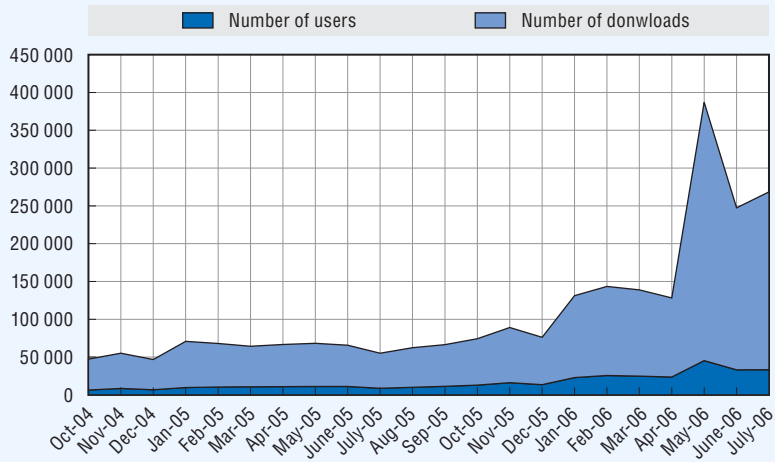
Source: Kopint-Datorg zRt, 2006. Prime Minister's Office, 2008. See also the Hungarian *e-Public Administration 2010 Strategy*, p. 21, *www.ekk.gov.hu/hu/ekk/strategia,* accessed 4 October 2008.

Box A.2. **User take-up: The government portal – *www.magyarorszag.hu***

A web engine of an independent market research institute regularly assesses the number of users of the e-government portal. The numbers are sharply increasing. Since October 2004, the number of users and the number of downloads per day have increased 419% and 475%, respectively (to the end of July 2006). Throughout the year, users mostly access the e-government portal to consult the description of administrative procedures. Other services with high take-up are the news section and the law query.

The Client Gate has over 640 thousand registered users. Over 80 different public administration proceedings can be initiated in the virtual document office, the most popular of which is making appointments to the document office, used approximately 230 000 times in 2007.

Government Portal Number of downloaded pages and visitors per day (monthly average)

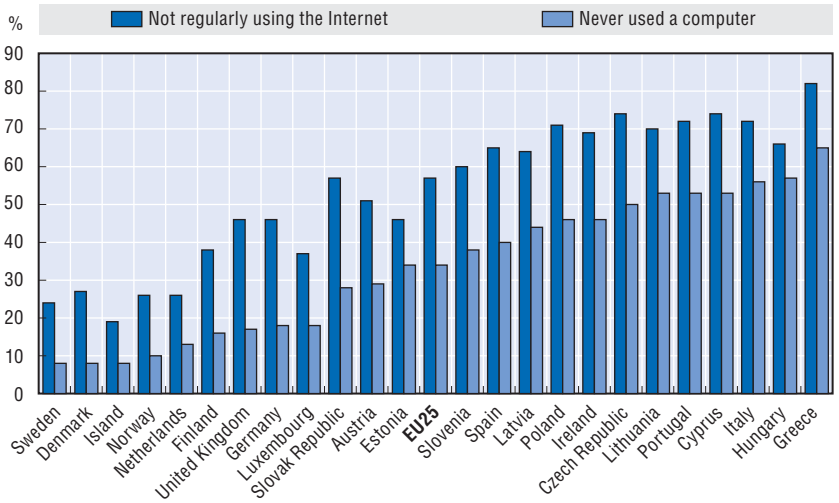


Source: Kopint-Datorg zRt, 2006. Prime Minister's Office, 2008. See also the Hungarian *e-Public Administration 2010 Strategy*, p. 21, *www.ekk.gov.hu/hu/ekk/strategia*, accessed 4 October 2008.

Tackling the digital divide

A recent survey by Eurostat[8] showed that 34% of EU residents have never used a computer and 57% of them do not use regularly the Internet (see Figure A.17). According to the survey, 51.2% of Hungarian individuals aged 16-74 have never used a computer and 63% of them were not regular Internet users in 2007.[9] For computer usage among EU member states, only Greece is behind Hungary. This shows that Hungarians who have the possibility and ability to use PCs intend to use Internet as well. Hungary is significantly

Figure A.17. **Individuals not using computers or the Internet, 2005**
As percentage of the total number of individuals aged 16-74



Source: Eurostat (2006), Community survey on ICT usage in households and by individuals in Eurostat 2006, Statistics in Focus, How skilled are Europeans in using computers and the Internet?, June 2006.

behind the EU-25 average regarding computer usage implying a large barrier for an increase in e-government user take-up. A recent survey of Hungarian households[10] showed that lack of interest, the lack of need, the absence of computer are the major obstacles to take-up of Internet usage in Hungary.

A recent survey of Hungarian households[11] showed that lack of interest in the Internet is the major obstacle to take-up of Internet usage in Hungary. About 60% of the respondents felt that they had no need to have Internet access.

The low use of e-commerce among the population may indicate challenges for user take-up of e-services. A large percentage of the population in Hungary does not believe in using the Internet for transactional purposes because of privacy and data protection reasons (which could also be connected to a relatively low level of penetration of credit cards). In an international comparison, the penetration of electronic payments using Internet banking and e-commerce is still low in Hungary.

Raising awareness and targeting the user with a gaming approach

One of the applications offered on the governmental portal is a participatory tool to improve public engagement in government issues: eGames – the eGovernment Assessment, Measuring and Evaluation System. eGames enables citizens to actively participate in online discussions on social, political

and economic issues, proposals for decisions etc. Implementation of eGames was a challenge – the online interaction had to be defined carefully in order to balance data protection, freedom of expression and the moderation of online contributions. High-level public sector representatives and politicians are regularly invited to chat with citizens on different topics. The responses during these online "office hours" as well as their other contributions are measured by points given by the users.

Mexico

The Good Government Agenda emphasises putting citizens at the centre of government and providing services that are more customer-focused. Most agencies surveyed by the OECD agreed that delivering more customer-focused services is a high priority, and several people interviewed by the OECD saw their role as one of helping citizens better interact with government.

However, some agencies and officials are still not clear about the extent to which the current e-government strategy is really about improving customer service as opposed to the digitalisation of existing government-centric processes. Several government officials interviewed by the OECD mentioned that perhaps the Mexican E-Government Network is pushing online services too much – to the detriment of customer focus. For example, the Ministry of Foreign Affairs told the OECD that it might be more useful to also focus on how to best link new technology to traditional services and provide a range of choices for interaction with government so as to best improve the user experience – the basic idea behind a multi-channel service delivery strategy.

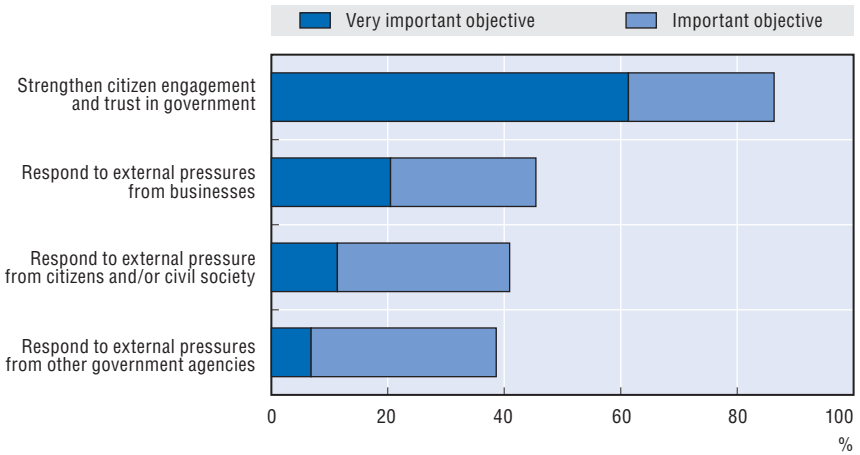
Specific objectives

One of the most important objectives for the implementation of e-government in Mexico is to strengthen citizen engagement and trust in government. Of the agencies surveyed by the OECD, 61% reported that this was a "very important" objective, and another 25% reported that it was an "important" objective (Figure A.18). Responding to external pressure for e-government was also considered important, in particular responding to pressure from businesses.

Elements of a customer-focused e-government strategy

The vast majority of respondents to the OECD survey include a customer focus as part of their e-government strategy. Three-quarters of respondents include "providing services that best meet expressed user needs" as part of their e-government strategy. Sixty-one per cent include providing feedback mechanisms for users and incorporating comments. Nearly half include

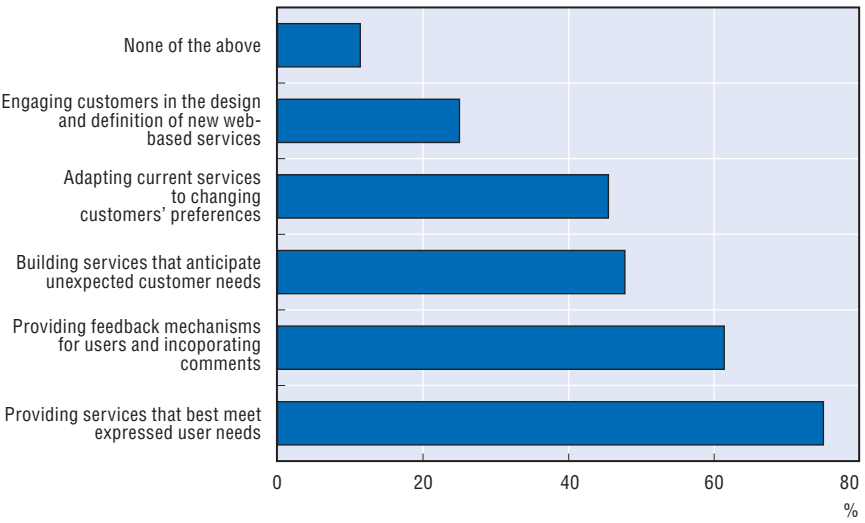
Figure A.18. **E-Government objectives in Mexico: Responsiveness and engagement**



Source: OECD E-Government Survey: Mexico, Question 2.1.

anticipating future customer needs and adapting to changing user preference in their e-government strategies. Only 11% of respondents did not have a documented focus on one of the areas on customer focus mentioned in the OECD survey.

Figure A.19. **Elements included in strategies for citizen-focused e-government**



Source: OECD E-Government Survey: Mexico, Question 7.2.

Impact of e-government on openness, quality, and seamless service delivery

Three recurring elements of Mexican e-government strategies with regard to customer focus are increased openness in government, better quality services and seamless service delivery.

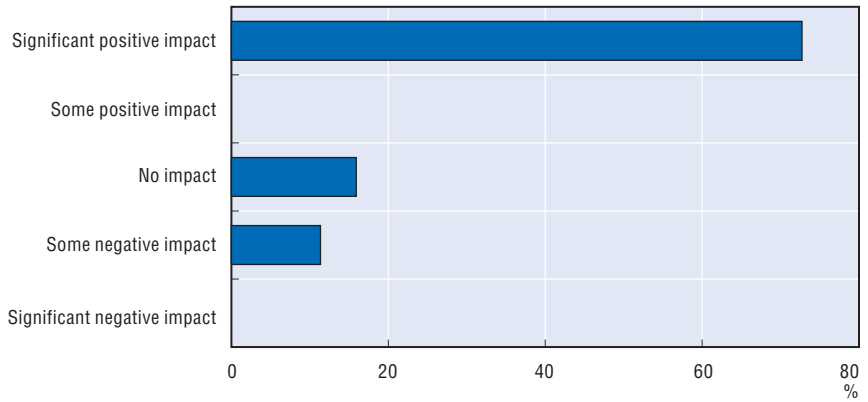
Open and transparent government

Customer focus is strongly associated with improving openness and trust in government in the Mexican political context. The Transparency Law and the Professional Civil Service Federal Law are two elements that have contributed to provide citizens with a clearer idea of what the government does and how it does it, and to a certain extent it could also be argued that these two elements have also contributed to improve the relationship between citizens and the government.

In terms of the impact of e-government, nearly three quarters of agencies surveyed by the OECD reported that e-government had a "significant positive impact" on transparency and accountability of the administration (Figure A.20). According to the OECD Survey of E-Government in Mexico, 73% of agencies interviewed stated that e-government had a significant positive impact on transparency and accountability in their organisation.

E-Government has simplified citizens' requests for government information and has also made public information more accessible to citizens. This report has analysed some of the solutions that the Mexican government has implemented to provide a more responsive, transparent, and open

Figure A.20. **Impact of e-government on transparency and accountability in the administration**



Source: OECD E-Government Survey: Mexico, Question 10.1.

government that engages citizens. The SISI electronic system of the Federal Institute for Access to Public Information manages citizens' information requests on a wide array of public information, and it has been widely adopted as the most used channel for citizens to make requests for public information. E-procurement systems in the Ministry of Public Administration (*Compranet*) and the Social Security Institute (*IMSS va a comprar, IMSS compró*) have also provided examples of the positive impact of e-government on transparency in organisational change in Mexico. Finally, traditional tools for citizen engagement such as letter writing to the President – a constitutional right in Mexico – have expanded to include electronic channels to strengthen trust in government, providing and updated and convenient way for citizens to engage in a very basic type of civic involvement.

Quality services

E-Government has been one of the ways which the Mexican government has sought to improve the quality of government services. Of the agencies surveyed by the OECD, 84% reported a positive impact of e-government on quality in their organisations. E-Government can improve quality, among many ways, by making a service available at all times, by speeding processing time, and by bringing together information from multiple sources. An example of this is the Federal Government Citizen Portal (*www.gob.mx*), which offers information from many government organisations and their services in a single place. While the portal does not tailor services to specific citizens' needs, it does tailor the information provided to different groups (*e.g.* students, elders, children, businesses, etc).

Mexican government organisations commonly evaluate the quality of their services through "ISO" certifications. The International Organisation for Standardisation evaluates the quality of businesses and governments with a reference framework that certifies the level of quality of an organisation's services and processes. The framework provides a common technological language between suppliers and their customers, which facilitates trade and the transfer of technology. Similarly, the certification makes it easier to evaluate quality from one organisation to the next. In Mexico, 1 453 government centres have an ISO 9000 quality certification, which together constitute 75.5% of government centres with high impact services to citizens.[12] The Ministry of Communications and Transportation, the Federal Electricity Commission, and NAFIN are three examples of government organisations with ISO 9000 quality certification in 100% of their areas.[13]

Quality in government constitutes one of the items in the Good Government Agenda, and the Mexican government has introduced a quality policy and a quality model for the Federal Public Administration. The

President's Office for Government Innovation has developed this quality policy and model with the goal of creating a world-class government delivering quality services through honest public servants and taking into account citizens' perception of government. The INTRAGOB Quality Model (*Modelo de Calidad INTRAGOB*) is oriented to satisfy the expectations and needs of citizens and clients on the products and services delivered by the Federal Public Administration.[14] The model is based on three indicators: performance, effectiveness, and efficiency, and it is a process-oriented evaluation of agencies' quality and service-delivery goals. E-Government is tied to the INTRAGOB model in the broad horizontal goal of delivering timely and efficient responses to citizens' needs and requests. The model also outlines clear guidelines for ICT quality administration: agencies should identify technologies and experts and share innovations and lessons learned. The INTRAGOB model has evaluated the

Box A.3. **Mexico: E-Government and High-Impact Services (HIS)**

High Impact Services (HIS) is a term used in Mexico to refer to the most important and demanded government transactions and services that citizens need in their daily life. The government seeks to provide assistance and personalised HIS to the majority of the Mexican population. HIS are classified by themes according to citizens' needs and selection is based on the 80/20 rule that establishes the criteria of identification: 20% of the most relevant information which is most frequently looked up by 80% of the users. HIS are then classified according to user profiles (citizens, companies, public servants, etc.) in order to increase the number and use of transactional services in a simple way. HIS are also classified to reinforce the customer relationship management and multi-channel strategy of organisations through technological convergence. This allows agencies to incorporate existing online services and generate new ones. Some examples of high-impact services are passport appointments, driver licences, job applications, health insurance, labour rights and provision of information on women's health.

Portals are also considered HIS because they organise information around citizen needs in a thematic manner, they promote access to other HIS from different government and private organisations, and they are available online at all times. The government's goal is to develop portals under a common architecture while inter-operability standards are adopted, but this goal has been achieved at a very slow pace. Users should be able to find high-impact services based on basic needs (topic dimension), functions and tools of the site and sectors participating (those who offer information and services). In some organisations, HIS have been identified as specific targets for online migration. For example, the Ministry of the Interior has 60 services in its process registry, and the 12 that were identified as high-impact services were put online.

Federal Public Administration since 2001, and in 2004, the average score for the whole administration was 350, a 320% increase since the first annual evaluation.[15] Similarly, the President's Office awards an INTRAGOB award.

In spite of these and other advances on the quality of government services, over one third of agencies surveyed by the OECD reported that e-government had a negative impact on citizen engagement. This finding could be explained by the fact that citizens are not taking up electronic services at the government's expected rate and, as a result, agencies report that e-government has had a low impact on engaging citizens in Mexico. However, no data exists on the level of citizen take-up compared to access to online services or to online service quality in Mexico. Citizen engagement is about the two-way relationship between citizens and government, and access to online information and online services would need to improve in order to have a more positive impact on citizen engagement. Nevertheless, citizen engagement also depends on a mix of delivery channels ranging from traditional channels, such as counter and telephone, to e-channels, such as the Internet, email, SMS-messaging, interactive voice response systems and digital television. Some elements of such an approach are starting to appear in Mexico, notably as a result of the HIS methodology, as part of deregulatory efforts, and as part of agency charters. Nonetheless, a multi-channel service delivery strategy in Mexico would help to spread this concept and could further strengthen the impact of e-government on citizen engagement by allowing citizens to deal with government through the channels most convenient for them, with e-government playing a complementary rather than exclusive role.

Many studies have shown that the use of ICT can raise expectations for the provision of services. For example, citizens may expect that inquiries sent by email are responded to within one week, while the expectation for responses by post may be one month. Government organisations in Mexico have also found this to be the case. For example, the Ministry of Defence told the OECD that it is a major challenge to adapt services to changing possibilities and changing customer demand. In order to adapt to this change, the Ministry believes that it needs additional capacity and training systems.

Some organisations in Mexico are responding to this changing demand head on by vastly improving their turnaround time for responses. For example, historically the President's Office took on average 200 days to respond to a letter or request from citizens. Now, through the use of ICT, the response time is 20 days. Additionally, through the implementation of a new customer relationship management system, the Office hopes to shorten response time even further. The President's Office also hopes to develop the ability for citizens to track their submissions via the Internet, and this could increase citizen ownership of the services provided by giving them more of a sense of control. However, until there are higher levels of access to the

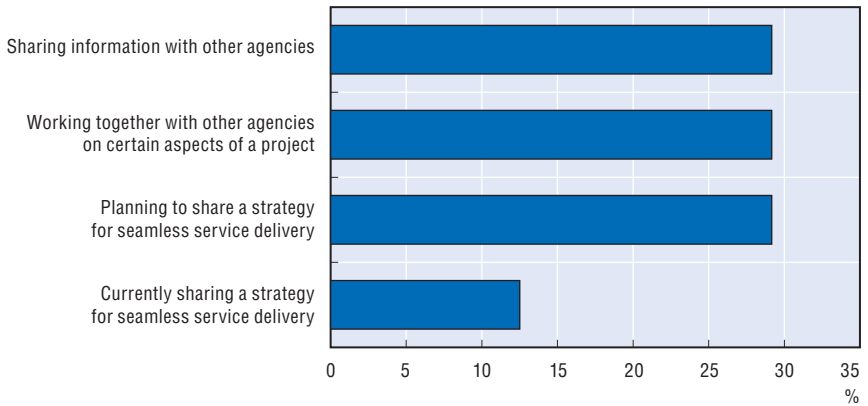
Internet for the general population, much of this effort is geared towards the use of stand-alone kiosks.

However, citizens' expectations may also change in other ways in response to the development of e-government and the information society. In addition to faster turnaround time, expectations of the functionality of services and the way in which they are organised and presented are likely to change and it is not clear whether ministries such as Defence are employing surveys on citizen or user satisfaction to understand this changing demand from citizens and users (see next section).

Seamless (or "joined-up") services

There has been some progress in unifying service delivery within individual Ministries in Mexico. For example, the Ministry of Labour now has only one database of companies for the whole administration – while in the past each directory had its own database of companies – and there were 80 databases in total. However, very few government organisations in Mexico currently offer joined up services with other organisations. Government officials interviewed by the OECD perceived an overlap of services along organisational lines, and, in their view, much would need to be done to reinvent government from the citizen's perspective. However, this is a very ambitious goal which cannot be achieved without additional collaboration. Only 13% of agencies surveyed by the OECD currently have strategies for seamless service delivery based on the delivery of services to common customer groups, though another 29% of agencies reported that they have plans to do this in the future.

Figure A.21. **Working with other government agencies**



Source: OECD E-Government Survey: Mexico, Question 6.1.

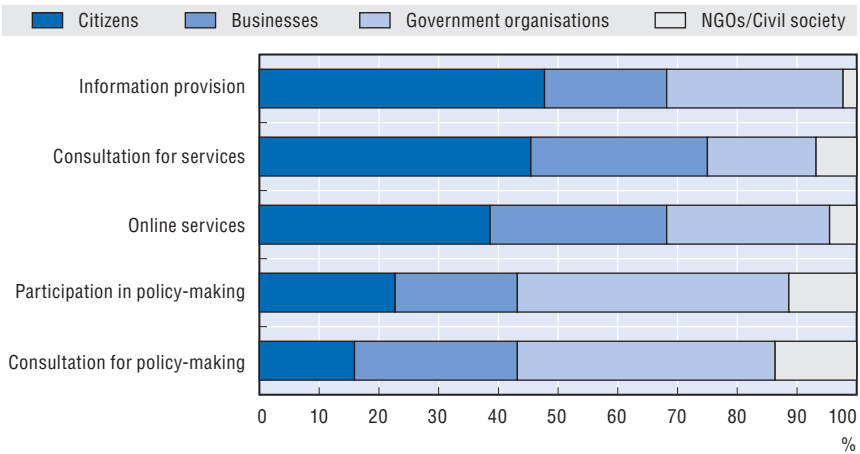
Demand for e-government

As we have seen, one of the objectives of customer-focused e-government is to meet demand from businesses, citizens and other government agencies. But what e-government services are these people and organisations demanding? What are the constraints that limit such demand? How does the government determine which services are in demand? These issues are covered in this next section.

What demand exists for e-government?

Agencies surveyed by the OECD reported that the strongest demand for e-government came from citizens and government organisations. Citizens demanded information and consultation for services, and government organisations demanded participation and consultation in policy-making, and this may reflect a desire to work more closely together on the formulation of cross-cutting policies. Nevertheless, agencies surveyed by the OECD also reported that responding to pressure from citizens was not one of the most important objectives of implementing e-government in their organisations. This does not necessarily show a lack of user focus, but it does reflect the importance given to users in the creation and provision of online services. Agencies surveyed by the OECD also reported a considerable demand for online services from businesses, and government organisations have responded accordingly (Box A.3). Finally, low demand from civil society groups may also reflect a relatively weak civil society in Mexico. E-Government demand reported by agencies surveyed by the OECD varied by service type, as depicted below.

Figure A.22. **E-Government demand in Mexico: Where is it coming from?**



Source: OECD E-Government Survey: Mexico, Question 7.3.

Certain ministries have clear sets of clients for e-government services, which means it is easier for them to tailor specific services for those groups. For example, the Ministry of the Environment often receives information requests from PhD students conducting research for their theses, and many require large amounts of information. Meeting the needs of these well educated and Internet-savvy clients in a cost-effective manner drives customer focused e-government in the Ministry.

E-Government can also help agencies serve more customers than they would otherwise be able to reach. For example, the Institute of the National Fund for Workers' Housing (*Instituto del Fondo Nacional de la Vivienda para los Trabajadores* – INFONAVIT), reported to the OECD during an interview that serving more customers was an immediate result of e-government. INFONAVIT was serving 300 000 in 2004 – compared to less than 200 000 customers annually in the past. Currently, the institute has a goal of serving 375 000 clients in 2005 with even less staff than what it uses now.

Box A.4. **Customer focus: Services to businesses**

Many of the most successful agencies with regard to achieving a customer focus are those that provide services to businesses. In part, this may be due to the fact that businesses tend to have higher rates of Internet access than individuals. Businesses also obtain a clearer benefit from online services because e-government services can impact their bottom line by reducing administrative costs and speeding up transaction times.

For example, NAFINSA –the Mexican Development Banking Institution – has handled 2 million consulting and advice cases through its online system. Similarly, SAT – the Administrative Tax System – has put some of its most important services to businesses online. One of these services is the registration of imported and exported goods in customs, which is done entirely online: brokers and importers can monitor the state of their merchandise via the system. Over one thousand (1 500) brokers use the system to monitor and register 7.5 million shipments every year, with 200 000 combinations of business processes and transactions online for the past 11 years.

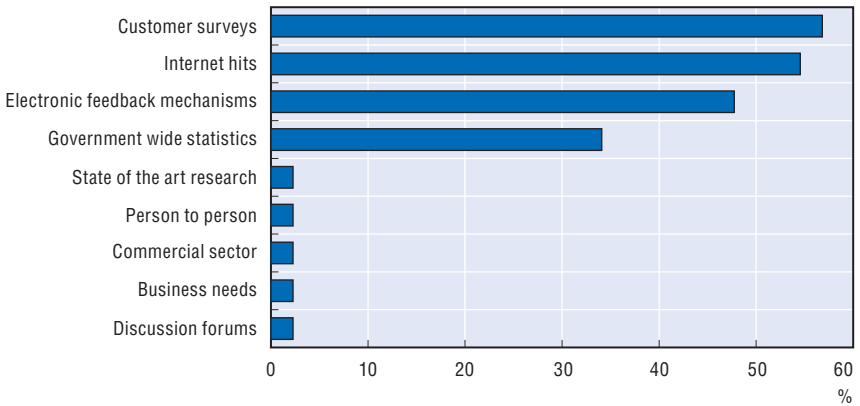
These examples demonstrate that many online government services are available to businesses and that initial take-up has been good. However, there has been little evaluation of service quality or to see whether these services have been designed according to business needs.

Source: NAFINSA and SAT.

Understanding customer needs

Several techniques are used in Mexico to better understand user needs, including customer surveys, web statistics, feedback mechanisms and government-wide statistics (Figure A.23). Other techniques were considerably less popular.

Figure A.23. **Sources for understanding e-government demand**



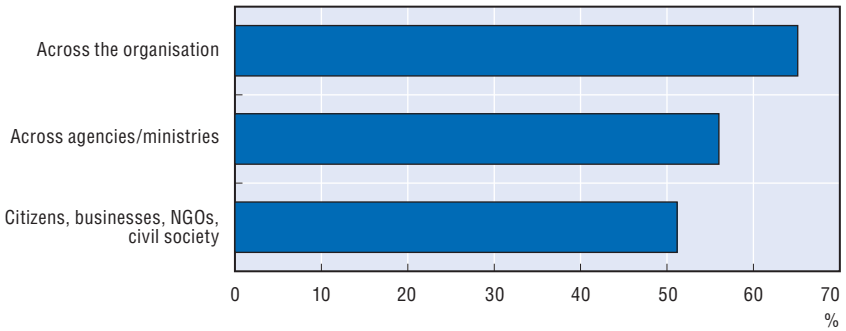
Source: OECD E-Government Survey: Mexico, Question 7.5.

In the National Council for Arts and Culture (*Consejo Nacional para la Cultura y las Artes* –CONACULTA), demand is estimated by the administrative unit through the use of customer surveys and evaluations. Simple web statistics are also useful to evaluate website and portal use. E-Mexico uses web statistics for its portal, and these measures show that use is growing exponentially. The e-Mexico initiative also measures traffic in its digital community centres. Feedback mechanisms, such as forms on the Internet, are used by some organisations to evaluate quality and demand for services. The Ministry of Economy uses feedback mechanisms, and has received many congratulatory emails regarding the use of e-government.

However, awareness of e-government is low among citizens, and some ministries and agencies think that additional marketing would be useful. The Ministry of the Environment told the OECD that "there is a need for greater participation of the press, and a greater emphasis on public relations". In order to improve customer's understanding of e-government, just over half of respondents have a strategy to better communicate their e-government plan to citizens, businesses, NGOs and civil society.

In terms of monitoring and evaluation, the most commonly used evaluation criteria for e-government projects is customer satisfaction (80%). Other criteria used that are related to customer focus include increased number of users (66%) and cost/benefit for users (55%).

Figure A.24. **Communicating the e-government implementation plan to different actors**



Source: OECD E-Government Survey: Mexico, Question 7.5.

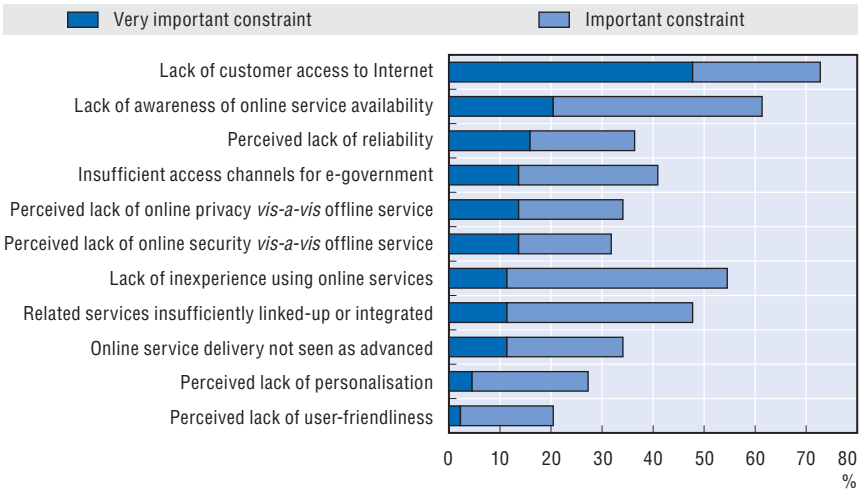
Constraints on demand

Many factors constrain customer demand for e-government in Mexico, but by far the strongest constraint is the lack of customer access to the Internet. Nearly half of respondents said that the lack of access is a "very important" constraint to e-government, and another quarter said this is an "important" constraint. Some e-government officials in the Mexican government are pessimistic about the little impact that they perceive to have towards the digital divide and instead focus on the provision of online services for the early adopters of technology. Other ministries are responding to this lack of access through a focus on the back office and the use of facilitated Internet centres.

Other important constraints on demand are lack of awareness of online service availability, inexperience regarding the use of online services and/or a lack of the necessary skills and a belief that services that are insufficiently joined up.

A lack of personalisation, perceived lack of security, perceived lack of reliability and insufficient access channels were considered much less important, with many respondents considering these factors to be "not an important constraint" or "not a constraint".

Figure A.25. **Customer demand constraints in Mexico**



Source: OECD E-Government Survey: Mexico, Question 7.4.

The role of the leader

The majority of agencies surveyed by the OECD survey reported that e-government leaders have an important role to play in strengthening a customer-centred approach to e-government: 64% of respondents reported the role of the leader is "very important" and another 31% reported it as "important". However, implementing a true customer focused approach in government can be very costly, and is not always feasible in ministries and agencies that are under considerable pressure to reduce the cost of government. It can be a great challenge for government organisations to achieve customer satisfaction while reducing the cost of services, and it is up to e-government leaders to find the appropriate balance.

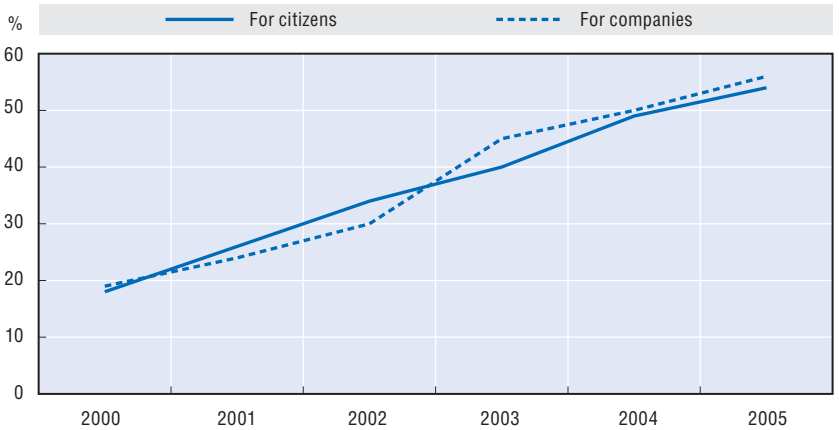
In order to address this challenge, agencies need to recognise that user focus means changing organisational structures and processes and reallocating resources, and this requires leadership. Additionally, agencies need to realise that all countries are behind on user focused e-government, and this would be important for leaders to take on. Finally, agencies and their leaders can better respond to user needs by taking into account geographic differences and local particularities in users' needs.

The Netherlands

For a number of years, the focus of e-government in the Netherlands has been on digitising services and putting them online. The increase in online public services has been steady and stable: Figure A.26 shows the growth of e-

services for citizens and businesses as a percentage of the total supply of services in the period 2000-04.

Figure A.26. **Supply of electronic government services, 2000-05**[1]



1. From 2003, the calculations have been adapted to comply with European standards. The 2003 percentages are therefore not immediately comparable with those of previous years.

Source: "The Digital Economy 2005", Statistics Netherlands, Voorburg/Heerlen, 2006, pg. 194. Advies Overheid.nl.

Government-wide drivers of user-focused e-government

The current national strategy setting out the e-government agenda in the Netherlands is the "Modernising Government" programme, in place since 2003. This programme seeks to overcome rigidities in traditional government structures and to deliver seamless services and integrate processes across organisation boundaries through public administration reform. It aims to first bring politics back to the citizens (democracy), and to reduce administrative burden on citizens and businesses by reducing the costs of bureaucracy. ICT plays an important role in this strategy, of which the major expected impacts are higher-quality service to citizens and businesses, increased administrative efficiency, lower costs of government (with cost savings for taxpayers), and higher quality of democracy through greater openness of government and enhanced opportunities for political participation.

There are four key e-government drivers for delivering improved outputs and outcomes to Dutch citizens and businesses:

1. Improved Public Sector Efficiency – Administrative burden reduction of 25% by the end of 2007.
2. Improved Electronic Services – Implementing common building blocks and key e-services with 65% of all services online by the end of 2007.

3. User-Focused Service Delivery – Better use of ICT in society.
4. International Leadership – Increase interoperability and international competitive position.

The improvement of service delivery through integration of services was prioritised on the agenda in the Netherlands as early as 1995, when a policy white paper (BIOS-3) titled "*Terug naar de toekomst*"[16] was presented to the Parliament by the Ministry of Interior and Kingdom Relations.[17] Whereas the first and second policy white papers on "Informatization of the Public Sector" (BIOS 1 and BIOS 2) addressed ICT usage within government operations, this third paper explicitly addressed ICT usage in relations between government and society. An important aim was the reduction of fragmentation by integrating services that – from the users' perspective – are related. The term "demand pattern" was coined; this concept resembles the idea of the "life event" that came to be used around in many OECD countries, and has been further developed as a methodology to deliver e-government services in the Netherlands.

A related challenge is the issue of non-use of services. Various studies showed that many people do not use the services intended for them, such as housing benefits; this is particularly an issue among low-income groups. One solution was the establishment of one-stop shops to remove physical barriers when applying to multiple services, while increasing awareness of services on offer. Since 1999, the Netherlands has been exploring an even more active stance towards making citizens' lives easier through proactive service delivery. However, regular and consistent research into relevant target groups is not common in the Netherlands.[18]

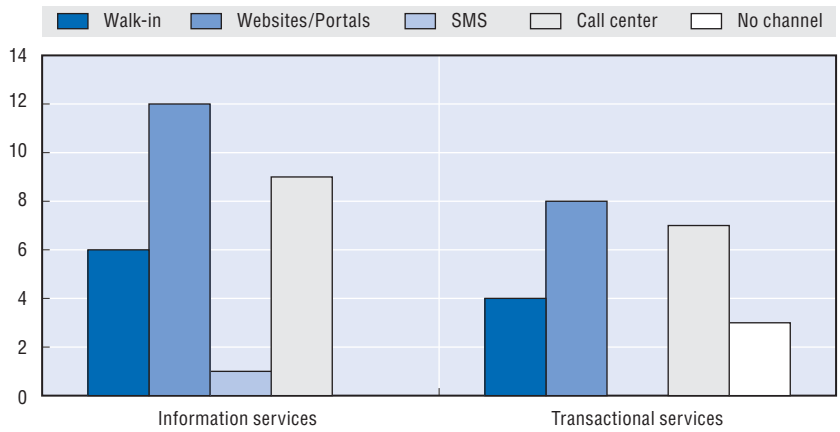
Meeting more advanced needs of citizens may demand much more sophisticated products (they may actually be less "sophisticated" in terms of complexity with, *e.g.* 3G telephony), in the form of new services or services that deliver more added values. The development and provision of such services inevitably requires more collaboration and co-operation between public sector institutions or a "service integration" entity that can achieve the same thing, and use of new innovative concepts which are becoming increasingly possible with the advances in technology. The current strategy does not include projects with an explicit user involvement.

Multi-channel strategy to deliver services for all

OECD interviews did not provide evidence of a common government-wide strategic usage of multi-channel strategies for services. It seems that only few public organisations have established multi-channel strategies and implemented them to proactively manage user demands for services and to change user habits. Institutions' needs seem to define whether they want to engage actively in managing demands, habits and quality of service.

For central government, the primary channel for information provision and transactional services seems to be websites and traditional call centres (Figure A.27). It is worth noting that a relatively large number of information services (over 32%) are still conducted through call centres or by "walk-in" services (21%). It shows a great potential for further efficiency gains concerning information services. Looking at transactional services, the same picture seems to emerge, with rather large potential for user take-up of e-services; only 29% of organisations use the channel websites/portals to provide transactional services.

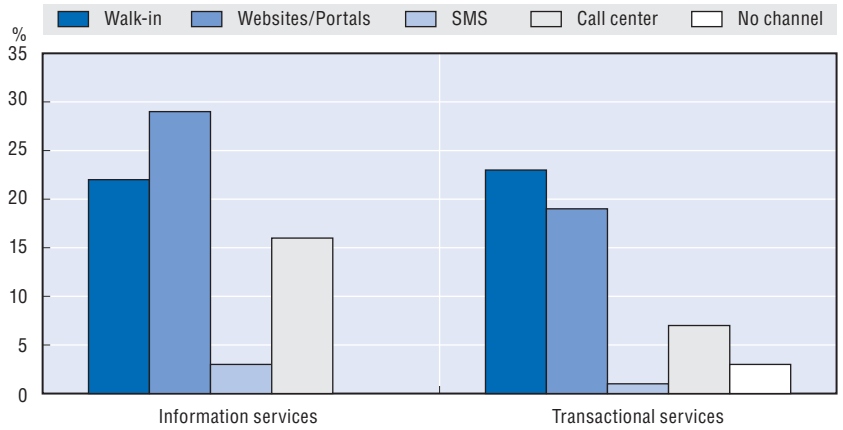
Figure A.27. **Channels used by organisations to provide services**
Central government



Source: OECD E-Government Survey: Netherlands, 2006, Question 7.6.

In the municipalities (Figure A.28), the potential for developing information services and transactional services is larger than for central government. As municipalities typically have the most direct contact with citizens and businesses, it is not surprising that "walk-in" services for both information services and transactional services occupy a larger part of the preferred service channels offered at this level of government. There is a significant potential for making information provision more efficient by developing and marketing the usage of e-services by municipalities. For transactional services, there may be efficiency gains to harvest if a larger portion of municipal services could be provided through electronic means; this would save resources, or channel resources to more complicated cases and to groups of citizens in greater need of "face-to-face" meetings with public sector service providers.

Figure A.28. **Channels used by organisations to provide services**
Municipalities



Source: OECD E-Government Survey: Netherlands, 2006, Question 7.6.

An interesting possible service channel is service delivery through mobile phones. OECD survey results for both central and local governments indicate an underdeveloped potential channel for service delivery. As a large part of the Dutch population has mobile phones or "m-services" could be an effective tool for reaching citizens. The need for innovative m-service delivery from the public sector is illustrated by the IB-Groep, the Dutch Education Grant Administration Agency, which has customised e-government services to the target group at hand – students who almost never misplace their mobile phones (other kinds of tokens for e-authentication are frequently misplaced). Mobile phones offer a totally new type of experience to the user, and where significant investments have already been made in online channels (using desktop technologies) the disruptive effect of mobile technology may not be easy to cope with. The opportunities arise where new services are being developed (such as paying parking meter charges) rather than where old services are being upgraded online (where the processes may be largely the same in terms of data capture, workflow, etc.).

Demand-led e-government development and implementation: the e-Citizen charter

The current e-government strategy explicitly states the goal of user-focused e-government development,[19] but in recent years, priority has shifted towards a more technical goal of developing back-office functionality[20] as a pre-requisite for delivering seamless services across organisational boundaries and levels of government. This also includes an active shift towards the development of more multi-channel services, to optimise reach, and increase uptake of and user satisfaction with government services, rather

than focusing on e-government services.[21] This approach seems sensible for a transition phase during which a demand-led strategy should be implemented.

The Dutch e-government policy focus on citizens' needs, better services – and the tradition of broad consultation on the development of society as a whole – is at odds with actual implementation. The ICTU-run *Burger@Overheid.nl,* the e-Citizen programme,[22] was set up to improve and monitor these ambitions. The aim of the programme is to create a competence centre for citizen-focused e-government development that enables the programme to inform public sector officials on e-government issues.

The Netherlands has established an e-Citizen Charter to ensure that e-government development has a citizen focus. It is too early to determine whether this programme has had an impact on user take-up. *Burger@Overheid.nl* does measure citizens' experiences through an e-Citizen Panel of 2 300 people, tracking frequency of usage of government websites and problems experienced when using these websites.

Only about 30% of users experienced no problems when visiting public sector websites. Clearly, website user-friendliness needs to be improved. The monitor also found that a high percentage of the public would like to see more proactive communication from the government; for example, they would like to receive information via the Internet, or via e-newsletters. It is possible to conclude, therefore, that there appears to be a gap between the potential that ICT offers government agencies for informing the public and their actual use of ICT for this purpose.

Awareness raising

In order to raise awareness of the availability and value of e-services, the Dutch government promotes "good practices" and exchange of experiences through conferences like "Innovation Public Sector Conference" and "The Yearly Web Award".[23] The Innovation Public Sector Conference showcases a number of innovations initiated by governments (on different levels) to improve their services. During this conference, representatives of different levels of government exchange ideas and experiences. There are no users involved, but initiators can learn from others' experiences. The same applies to the Yearly Web Award. This award looks only at innovative government websites.

Norway

Most OECD countries are structuring e-government around a focus on the user. The aim is to create value for users of public services by providing efficient, easily accessible and high-quality public services that are developed and delivered to meet the real needs of users, not government agencies. This section looks at the extent to which Norway has developed a user-focused-

approach in implementing e-government. In particular it examines *i)* what central government has done to understand the demand for e-government and anticipate user needs; and *ii)* the extent to which available services are accessible, respond to high-quality standards and are organised around citizens' needs (*e.g.* around life events). The section also looks at the measures taken by government to improve online access to information and openness in government and to foster online public consultation and participation in policy making.

Demand for e-government services

Understanding the demand for e-government services is an important aspect of the user-focused approach and the first step in building up services that meet user needs and expectations. While the number and range of online services currently available – and users' experience with them – can provide an indication of the current level of demand, a clear understanding of users' profiles, needs and preferences can help in designing and developing new online services.

In common with most OECD countries, in Norway there is limited knowledge about the overall demand for e-government services, although a number of surveys have provided a general indication in terms of the population served by government online. A government-sponsored survey carried out in 2003 showed that Norwegians are very likely to be online (69%) and that those online are highly likely to use e-government (85%).[24] While this indicates that Norwegians are willing to use the Internet to interact with government, national statistics show that only 50% have done so at some time.[25] These figures point to a considerable potential demand for e-government services.

This lack of knowledge indicates that, as in most OECD countries, a real understanding of user demand has not yet become a major driver for e-government development in Norway. This is also suggested by the results of the OECD survey, which indicate that:

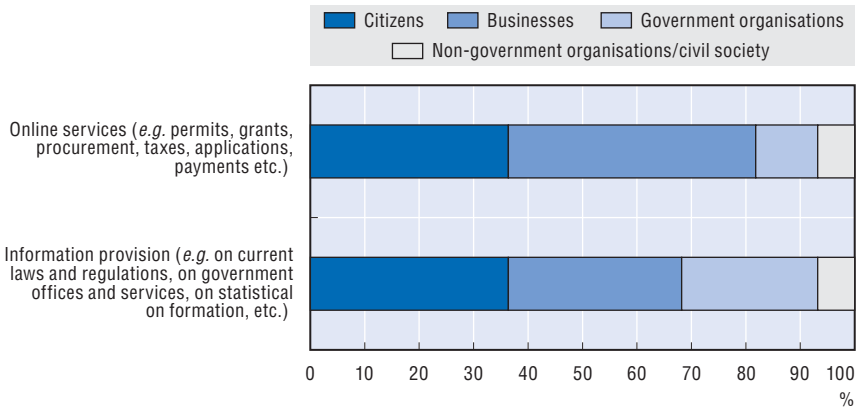
- Responding to external pressure from citizens and/or civil society and businesses is considered to be a less important reason for the implementation of e-government.
- Only a few respondents state that citizen (5%) and business (9%) demand represent the most important drivers for e-government in their organisations.

Main features of the demand for e-government

The OECD survey provides a mixed picture of the demand for e-government as experienced by government organisations. While respondents indicate experiencing the largest demand for online services

from businesses (*e.g.* permits applications, tax declarations), the demand for information provision is more equally spread between citizens (36%) and businesses (31%) (Figure A.29).

Figure A.29. **Demand for e-government**



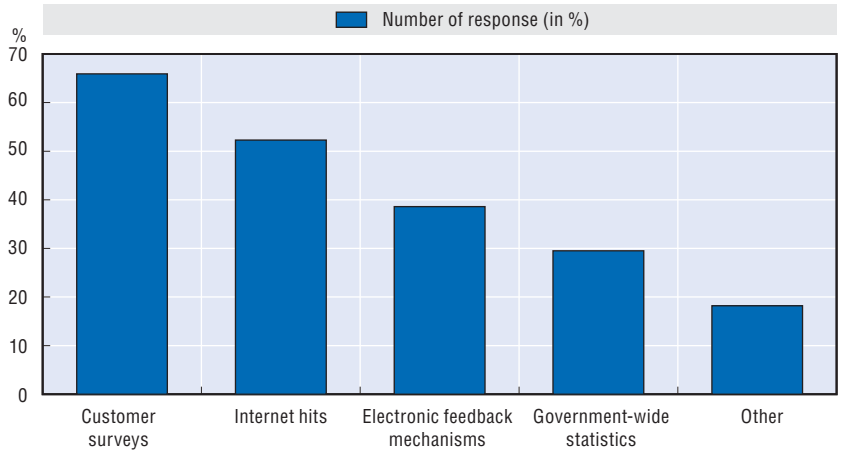
Source: OECD E-Government Survey: Norway.

This may be due to the fact that, as in other OECD countries, businesses are: *i)* better organised to articulate demand for electronic services; *ii)* have in general more numerous and more frequent interactions with government than they do with citizens; *iii)* have greater incentives to interact with government online (*i.e.* through reduction of the cost of transactions); and *iv)* have a greater access to ICT than citizens. The numbers show that 97% of large businesses in Norway with more than 100 employees have Internet access, and 76% of small businesses (5 to 9) reported having access.[26] In contrast, as mentioned before, about 55% of households have access to the Internet.

Understanding the demand

In Norway most of the organisations use traditional techniques to understand user demand. Most respondents indicated customer surveys (66%) as a tool. Respondents also indicated using web hits and electronic feedback mechanisms as instruments for collecting information on the user. Government-wide statistics are considered less popular tools (Figure A.30). Statistics Norway has conducted a survey on ICT utilisation in public administration and in municipalities. However, these surveys do not specifically address the issue of understanding user preferences and the demand for e-government services.

Figure A.30. **Mechanism to understand user demand for e-government**



Source: OECD E-Government Survey: Norway.

Constraints on demand

The biggest single constraint to customer demand (according to the OECD survey respondents) is that services are not sufficiently joined up. E-Government offers new opportunities to develop services that are organised and delivered according to user preferences. Norway has made some progress in developing joined-up services organised around service users (*e.g.* through portals). However, there are still a relatively limited number of organisations that currently provide joined-up services with other organisations.

Among other factors constraining demand, the lack of awareness of online service availability is perceived to be one of the most important, according to OECD survey respondents. All else being equal, the more those users have experience with online services, the greater the support and demand for e-government. This can have implications in terms of developing a proper policy and activities designed to increase the visibility of online services, especially to citizens that are likely to have less interaction with government.

Government has been active in this area by developing, in 2002, the public sector information portal which provides a first access point to public sector information in Norway, and guides citizens in the identification of public information and services (Box A.5). Interviews with government officials indicate, however, that the portal is not very well known by agencies and ministries, and budgets for advertising may be limited. This is confirmed by survey results showing that only about 40% of respondents are likely to have their organisations website linked to or be linked from the public sector information portal.

Box A.5. **The public sector information portal: *Norge.no***

The Norwegian public sector information portal (*Norge.no*) is a link-based portal which provides a single "electronic" front door to the public sector and help the user identify public services and information in Norway through links to public organisations' websites at all administrative levels and sectoral areas (*e.g.* health, education, central government, local government, etc.). The portal contains a search engine that facilitates the search and collection of information on public sector organisations, services, laws, regulations, duties, rights, etc. The portal does not contain original content nor downloadable documents from other organisations, but links to external websites that belong to the public sector, including: public administration agencies and enterprises, the Norwegian Royal Household, state-owned enterprises, trusts and organisations connected with the public sector or with special tasks of national importance.

The portal was launched in 2000 as part of a government initiative in co-operation with the Norwegian Association of Local and Regional Authorities (KS) and other public authorities (*e.g.* the County Governor, Western Norway Research Group and Statskonsult) and vendors. The portal was designed to give citizens and public sector employees a comprehensive view of public administration in Norway. Following an evaluation exercise, the project has been reorganised and transformed in a public agency under the Ministry of Modernisation beginning from January 2005 with the objectives of *i)* helping simplify the process of making use of public services and obtaining information; *ii)* inspiring more public sector organisations to appear on the Internet; *iii)* improving the quality of public services by providing a single gateway to the public sector on the Internet. The portal is run from the County Governor's Office in Sogn and Fjordane.

Norge.no also provides a help desk that assists the citizen in searching and retrieving information, gives advice on specific information (*e.g.* interpretation of a Norwegian law), and helps the user identify and get in contact with the right public agency. The help desk can be accessed by phone, e-mail, SMS, chat, fax or letter. Users of the help desk are kept anonymous. In addition Norge.no provides e-chat, SMS and e-mail services. *Norge.no* has also launched an English version of the site (*www.norway.no*).

The release of the first version of the citizen portal "Min Side" (see section on enabling joined up services), which is planned in June 2005, will use *Norge.no* as access point for public services from government and municipalities.

Another constraint on e-government demand is that online services are not seen by the public as being sufficiently advanced. The European Commission's 2004 eEurope benchmarking exercise shows that Norway ranks relatively highly (sixth position) in terms of the "sophistication" (*i.e.* degree of interactivity) of online services it provides to both citizens and businesses. While benefits for users do not necessarily increase along with rising service sophistication, the development of such services is nevertheless key to meeting the expectations of many users of e-government. Government organisations' perception that a lack of advancement of e-government services constrains demand for them may simply indicate that they are aware of increased levels of user expectations, and that they feel a need to keep up with these expectations in order to increase the take-up of online services. This is in line with the 2003 eNorway Status Report which warned that, although Norwegians are among the most active populations when it comes to using government services online, there are reasons for thinking that the services provided by the state are not developing in line with demand.[27]

Providing services to citizens and businesses

Despite the fact that the largest demand for e-government services comes from businesses, the OECD survey shows that ministries and agencies are more citizen- than business-oriented in the delivery of public services. Of the respondents, 72% reported providing services to citizens (G2C), 63% reported providing services to businesses (G2B), 64% to government organisations (G2G) and 58% to non-government organisations.

However, in terms of development of simple one-way electronic data reporting systems, Norway has made significant progress in developing user-focused solutions for serving business. One example is the ALTINN system for reporting business data (Box A.6). When it comes to the provision of interactive online services, development has been less rapid. The impact of electronic services delivery on the front office of e-government is relatively new, and few evaluations have been done so far to measure its impact and benefits.

Developing quality services

One of the key aspects of user-focused e-government is the provision of services that meet a high standard of quality. Almost 60% of survey respondents reported a positive impact of e-government on the technical quality of services (*e.g.* service reliability). Almost 60% of respondents reported including technical quality of services as a criterion of e-government evaluation.

Box A.6. **Common solutions for businesses: Altinn**

Altinn is a common Internet portal for public reporting, created in 2002 by the Norwegian Tax Administration, Statistics Norway, and the Brønnøysund Register Centre. Its aim is to ease the burden of public reporting by enabling it to be done electronically, implying improved data quality and lower costs both for the submitter and recipients of the reports.

The portal was officially launched in December 2003 and has been in full operation throughout 2004. The responsibility for administering and developing Altinn is allocated to the Brønnøysund Register Centre. At the launching of the portal 85 different public forms were available; during the first six months of 2004 more than 1.7 million forms have been submitted through Altinn and the amount of compulsory forms submitted electronically is constantly growing. As an example, nearly 200 000 Norwegian enterprises handed in their tax reports through Altinn in 2004, which represents 50% growth from the year before. The types of reports that can be sent are VAT returns, annual accounts, wage and absenteeism statistics, company and self-employed tax returns, etc. The Altinn forms all have the same design.

The users of Altinn can either fill in the forms directly on the Internet portal or use their own IT systems to transfer data, for example salary and accounting systems or a year-end accounting package. The companies' own IT systems can transfer pre-filled forms to the portal through a simple interface; the forms can subsequently be completed and signed in the portal. The user also gets an automatic note of forms when deadlines are imminent, and necessary online guidance on what forms to send to which public agency. All forms contain relevant information that already exists in the public IT systems and registers. The forms are dynamic so there is no need to answer questions that are not specifically related to the user.

Altinn is a 24/7 solution based on a .NET platform. The solution is an open standard (XML, SOAP) solution, and integration with the IT systems for the enterprises is implemented through the help of web services. Altinn is designed for any security level and the software ensures that access to and treatment of data are restricted to people and software with proper access rights. Security mechanisms are incorporated for secure storage and tracking of data.

The plan for the future is to incorporate most of existing public forms in the portal, and the number is constantly growing. Even citizens will in the future be able to use Altinn as the goal is to create a "Highway for collection of information". User feedback enables continuous improvement of the user interface.

Source: www.altinn.no.

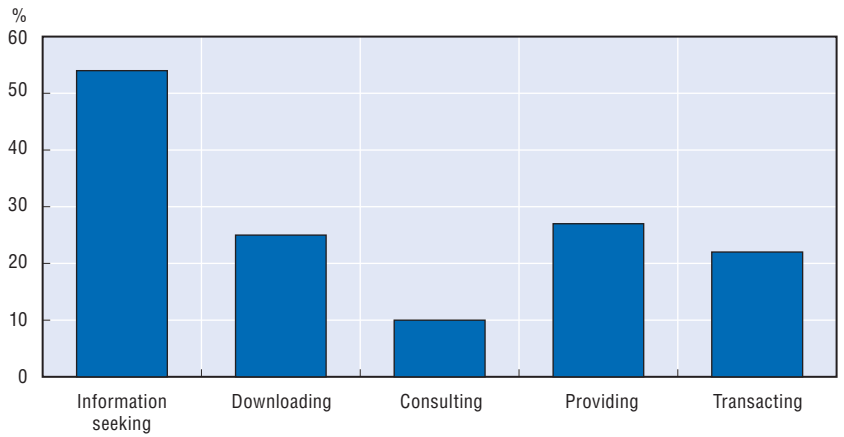
Few quality assessment exercises have been undertaken at central government level in 2001. The government portal (*Norway.no*), in collaboration with the Western Norway Research Institute and *Statskonsult*, undertook an assessment of government websites on the basis of quality criteria. To this end, 529 government and municipal organisations were assessed and were given points ranging from one to six stars. The results show that most of the websites fell in the middle category (three stars) with few achieving either one or six stars.

Access to electronic public services

In Norway the government has adopted a "no wrong door" policy regarding access to public services. Citizens and businesses can access public services through different channels (*e.g.* Internet, telephone, in-person, etc.). The OECD survey shows that lack of customer access to the Internet is not perceived as an important constraint by 69% of respondents.

A survey conducted in 2003 indicated that Norwegians prefer to use the telephone and the Internet when contacting public authorities and are more likely to use the Internet for seeking information rather than transacting with government online (Figure A.31). Reasons could relate to users' lack of experience and skills with regards to e-commerce and e-government. The OECD survey indicates that more than 50% of ministries and agencies consider "inexperience regarding the use of online services or lack of the necessary skills" as being a constraint for consumer demand. Another reason could be lack of services of this type.

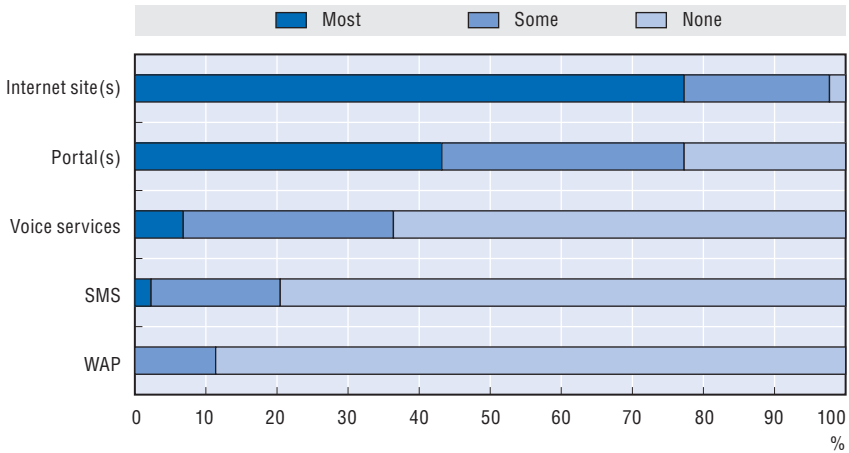
Figure A.31. **What Norwegians do when they interact with government online, 2003**



Source: TNS (2003), Government Online: An International Perspective.

In Norway, as in most OECD countries, the Internet has become the main channel for the delivery of electronic public services. From the OECD survey it emerged that government organisations provide most of their electronic services through websites (77%) and online portals (43%), while the use of voice services, SMS and WAP as service delivery channels is still relatively limited (Figure A.32). Given the high penetration of mobile phones in Norway, this result indicates that solutions could be further explored to increase the provision of electronic services through these channels. An example of use of SMS to deliver public services is the electronic submission of tax: users can choose to submit tax declaration by phone, SMS or over the Internet.

Figure A.32. **Channels for e-government in Norway**



Source: OECD E-Government Survey: Norway.

Traditional and electronic channels for the delivery of public services co-exist in Norway. Only 40% of the survey respondents reported providing some services exclusively via electronic channels.

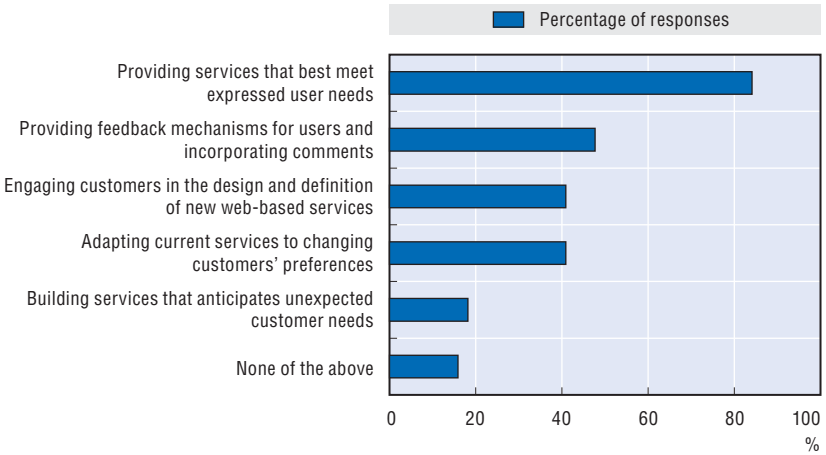
User-focused e-government strategy

User orientation of services is well integrated not only in e-government policy documents but also in the broader vision for public sector reform. Government policy documents mention the use of systematic user surveys for public agencies in order to understand user needs, and stress the importance of adjusting services to individual needs.

However, individual organisations have set limited objectives concerning the implementation of user-focused e-government. The OECD survey showed that 84% of the respondents reported that their e-government strategies

included the generic goal of providing services that best meet user needs, while less than 50% of respondents reported that their e-government strategy explicitly "provides feedback mechanism for users" or "engage[s] customers in the design and definition of new web-based services" (Figure A.33). OECD interviews with officials suggest that agencies seem to be lagging behind in terms of anticipating user needs and involving users in the definition of services. They are more likely to use instruments for understanding user demand that concentrate on the population already being served by e-government, not on potential new users. This seems to be suggested by the use of customer surveys (66% of respondents), web hits (52%) and electronic feedback (38.6%) as mechanisms to understand user demand. Gallup Norway conducts regular survey on users of the student loans and grants system developed by the State Educational Loan Fund (SELF), which also has established a user group services.

Figure A.33. **User-focused e-government strategy**



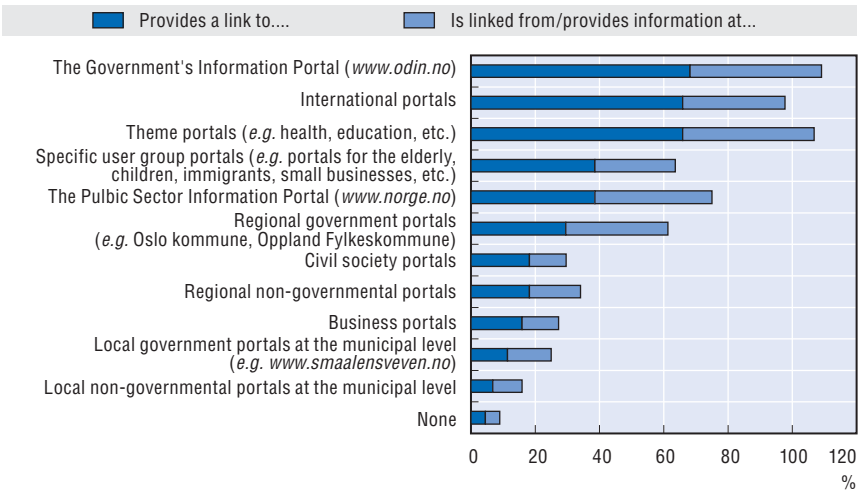
Source: OECD E-Government Survey: Norway.

Enabling joined-up services

Implementing user-focused e-government requires governments to organise services around citizens needs, not around government structures. This requires government agencies to be able to work together in the provision of services. One of the solutions adopted by most government agencies is the development and implementation of service portals that link agency websites and provide single points of access to government services for citizens and businesses.

As in most OECD countries, in Norway portals have become a common tool to provide citizens and businesses with access to information on public services and government activities. The OECD survey shows that very few respondents (4.5%) reported that their organisation website is not linked to any portal, while most of the organisations reported being connected to some kind of portal. While most government organisations (68% of respondents) are likely to be connected to the government portal (*Odin.no*), a large number of ministries and agencies also reported providing links to thematic and international portals (Figure A.34). The Ministry of Agriculture is linked to and contributes to the Ministry of Foreign Affairs' portal (*www.norway.info*).

Figure A.34. **Portal connectivity in Norway**



Source: OECD E-Government Survey: Norway.

However, building user-focused e-government requires that agencies and ministries go beyond simply aggregating information into a single location, and organise and present information and services in a user-friendly way in accordance with citizen needs (*e.g.* by organising information of services around life events). The *norge.no* portal features this type of organisation.

Concerning initiatives at central government, the Norwegian government seems to be moving faster in implementing initiatives aimed at ensuring that public services are easily accessible, sufficiently joined up and based on user requirements. The government is currently working on setting up a service-oriented architecture around a brand new citizen portal (Min Side) that will focus on cross-government services and will be launched by the end of 2005. While in the first phase Min Side will offer a number of limited services only

from central government agencies, in the second phase local Min Side will offer services from both central government and municipalities. The government has also assigned the newly established agency *Norge.no* the responsibility of developing evaluation criteria of public websites, with the purpose of setting up shared standards for testing the user-friendliness and availability of services.

The government has also given *Norge.no* responsibility for the "Life IT" (*LivsIT*) project. LifeIT is a standard way to get information from the whole public sector through municipal portals. Municipality portals that adopt these standards receive and display information organised around different life situations (*e.g.* marriage, parents, unemployment, etc.). The standards are developed and managed by Statskonsult.

Joining up information and services through portals requires a high level of collaboration between agencies, both on technical (*e.g.* data standardisation) and non-technical (*e.g.* setting up responsibilities for updating info and links) aspects of a project. In Norway collaboration among agencies is relatively high in the area of establishing common portals. In the OECD survey, when asked about the extent to which they collaborate in selected e-government areas (*e.g.* IT infrastructure, technical standards, etc.), survey respondents indicated that "establishing common portals for the delivery of seamless services" is one of the principle areas where they are currently working together (36.4%).

E-Engagement initiatives in Norway

The use of ICTs in government has the potential to expand the scope, breadth and depth of government interaction with citizens and other key stakeholders.

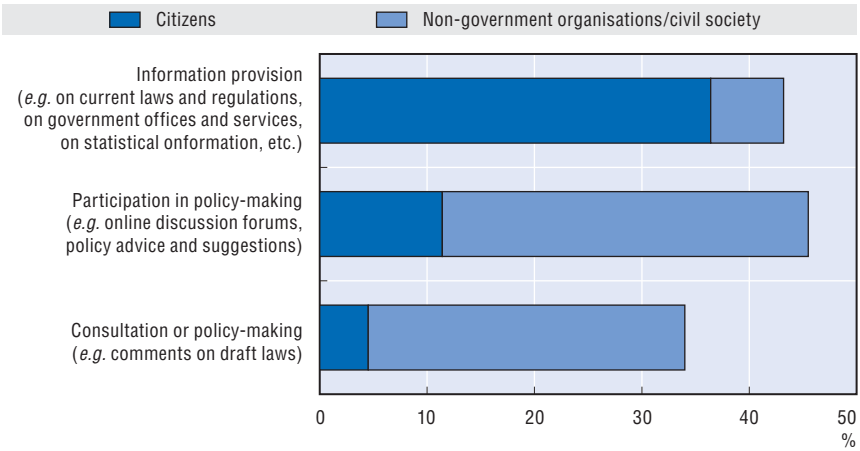
In Norway there is a limited level of citizen engagement through ICTs. There are relatively few projects being undertaken by central government to improve citizens' online consultation and participation in policy-making. Most e-government initiatives that do exist are targeted to providing information to citizens, rather than engaging them in e-consultation and e-participation.

Government seems to be experiencing a low demand for this kind of activity. The OECD survey shows that while respondents experience request for information as the largest demand coming from citizens, 11% reported receiving demands for participation in policy making (*e.g.* through online discussion forums, policy advice) from citizens and less than 4% of respondents experience citizen demand for online consultation (*e.g.* comments on proposed legislation). In each of the areas of active participation agencies face more demand from civil society organisations than from individuals (Figure A.35).

Box A.7. **E-Government portals in Norway**

- **The Government information portal (*Odin.no*):** provides access to information on government activities and links to ministries' websites. The portal is intended to make information and news from the government and ministries available on the Internet in the interests of having a more open and accessible central government. *Odin.no* is a joint electronic information service for the government and ministries and is managed under the responsibility of the Ministry of Modernisation. Each ministry has its own editorial office and is responsible for providing the content.
- **The Norway portal (*Norway.info*):** provides a single point of entry to Norwegian embassies' websites by geographic area. The Portal is also organised around a common graphic interface and structure for all embassies and representatives and provides a comprehensive collection of articles and background information about Norway written by specialists in various fields.
- ***Smaalensveven.no:*** is a regional, public website for ten municipalities in inner Østfold. In addition to joint pages for the region, each municipality has its own home page. The main themes for the portal are public services, recreation, culture and business. The portal is financed by the ten municipalities taking part.
- ***Ehandel.no:*** is the portal for the e-procurement initiatives of the Ministry of Modernisation. It contains editorial material on the usage of e-procurement in public sector entities and their suppliers, gives guidance on how to start trading electronically, presents case descriptions and access to an operational e-procurement tool. The main target groups of the portal is public sector entities, suppliers to the public sector and management/technical consultants that want to offer e-procurement implementation services to both parties.
- **The Health Portal** (*Helseportalen*): provides information on health, food and food supplements. The portal also functions as a medium for organisations, suppliers and other institutions in the health food sector. Emphasis is placed on quality assurance of natural products and dissemination of information on research in this area (the portal is privately financed).
- **The Youth Portal (*Ung.no*)**: is a portal for governmental information on the rights, possibilities, and obligations of young people. The portal is a gateway to all the kinds of information that a young person might need and is especially target to youths between 14 and 20 years old.
- ***Kunnskapsnettverk:*** is a portal solution that focuses on building horizontal knowledge and learning networks across Norway's municipalities. The portal connects different networks' private and virtual workspaces and the public portal. Network members and their competences, experiences and contributions appear on the web, making human capital visible and accessible.

Figure A.35. **Demand for e-engagement activities in Norway**



Source: OECD E-Government Survey: Norway.

E-engagement activities in Norway are more likely to support e-government at local level. A project of the Ministry of Children and Family Affairs is looking at how ICT can be used with local and regional authorities to get young people interested in politics and to participate in local planning. Experiments on e-voting have also taken place at the local level (Box A.8).

The low level of demand for e-engagement activities in Norway can be explained and better understood in light of the current debate on the condition of democracy in Norway. The conclusion of a recent report on Power and Democracy in Norway[28] stated that parties and non-government

Box A.8. **E-Voting in Norway**

The Ministry of Local Government and Development accepted pilot projects in three municipalities at local elections in 2003. Voting in the pilots was carried out in the polling stations using voting machines with touch screens. An evaluation of the tests showed that the system was well accepted by the electorate and local election officers. However, the evaluation report, which followed the pilots, also stated that questions regarding e-voting and security needed further clarification. The Norwegian government therefore has stopped further use of the system until a working group appointed by the Ministry delivers its views on these questions. The working group will submit their report to the Ministry in December 2005.

Source: The Administration and Cost of Election (ACE) Project, *http://focus.at.org/e-voting/countries*.

organisations have weakened as channels for broad-based public movements. In this context, e-government and ICTs can be important instruments to facilitate the channelling of ideas and enhance public debate and participation in decision-making processes in government.

Notes

1. OECD (2005), *OECD e-Government Studies: e-Government for Better Government*, OECD, Paris.
2. Le Secrétaire d'État à l'Informatisation de l'État (2005), *Fed-e-View/C*, Brussels, Belgium.
3. Steyaert, J. and R. Van Gompel (2005), *Het Internet, klikt het met de Belgische politici? De resultaten van een onderzoek naar de houding tegenover en het gebruik van Internet door politici op federal, regional en provincial niveau*, Indigov, Leuven, *www.indigov.be/attachments/1176976656042/Indigov_Research_Reports_Politici_en_Internet_02_2005.pdf*, accessed 28 February 2008.
4. Research was launched on 9 December 2004, and finished on 10 January 2005. In total, 331 politicians participated in the research (64% male, 36% female; 68.6% Dutch-speaking, 31.4% Francophone). The questionnaire was delivered by e-mail to the 331 respondents.
5. Hoff, J. (2004), "Members of Parliaments' Use of ICT in a Comparative European Perspective", *Information Polity* 9(1-2), pp. 5–16.
6. Decisions have been taken after the OECD review in 2005 to make the citizens portal *borger.dk* and the business portal *virk.dk* as primary vehicles of delivery of digital services. See also Box 3.4 and 3.32.
7. The EU28 countries consist of the 25 EU member states, Iceland, Norway and Switzerland.
8. Demunter C. (2006), *How skilled are Europeans in using computers and the Internet?*, Statistics in focus 17/2006, Eurostat.
9. Internet penetráció 2007 II. félév, *www.nrc.hu/kutatas/piackutatasprezentaciok?page=details&oldal= 1&news_id=471&parentID=930*, accessed 4 October 2008.
10. *Eneten Közvélemény és Piackutató Központ* (2005 Residential Internet Usage Survey), *www.nhh.hu*.
11. *Eneten Közvélemény és Piackutató Központ* (2005 Residential Internet Usage Survey), *www.nhh.hu*.
12. This figure was last updated in September 2004 by the Federal Government Quality Network (*Red de Calidad del Gobierno Federal*) in *¿Dónde estamos y a dónde vamos en nuestra Agenda de Buen Gobierno?* (Where are we and where are we going with our Good Government Agenda?), at *www.innova.presidencia.gob.mx/documentos/14*, accessed 23 February 2005.
13. As reported on the President's Office for Government Innovation website at *www.innova.gob.mx/archivos/4/5/4/files/archivos/sip-1723.pdf*, accessed 23 February 2005.
14. Mexican President's Office for Government Innovation (2003), "Modelo de Calidad INTRAGOB (INTRAGOB Quality Model)", Revision 1, March, *www.innova.gob.mx,* accessed 23 February 2005.

15. Ministry of the Economy, *¿Dónde estamos y a dónde vamos en nuestra Agenda de Buen Gobierno?* (Where are we and where are we going with our Good Government Agenda?), *www.innova.presidencia.gob.mx/documentos/14*, accessed 23 February 2005.

16. Dutch Ministry of the Interior and Kingdom Relations (1995), "Terug naar de toekomst: over het gebruik van informatie en informatie – en communicatietechnologie in de openbare sector (Back to the Future: On the use of Information and Communication Technology in the Public Sector)", The Hague, June.

17. Dutch Ministry of the Interior and Kingdom Relations (1996), "Terug naar de toekomst. Eerste voortgangsrapportage aan de Staten-Generaal (Back to the Future: First Progress Report to the Parliament)", version 2.2, Gravenhage, July.

18. The Dutch government is looking at services that will have one electronic counter for citizens and one counter for companies, in a way that is familiar through various existing organisations, such as electronic banking. Building on this general service, a decision-making process will take place during 2005 about a service in which government products that are linked to citizens' and companies' life events are provided in an interrelated way. A study is presently being carried out on the way in which this type of service should be set up. See *http://ec.europa.eu/idabc/servlets/Doc?id=21189#search=%22life%20event%20methodology%20egovernment%20Netherlands%22*, accessed 10 October 2006. An initial version of this (the Personal Internet Page – PIP) became operational in March 2008 and now has personalised citizen data available. In future, more personalised government services will be added. There are several online services based on the life events approach, *e.g.* supplementary income, emigration, immigration (*www.newtoholland.nl*), death, and death in a foreign country (according to information received from the Dutch Ministry of the Interior and Kingdom Relations, 7 April 2009).

19. "Modernising Government" programme (2003) and subsequent progress reports to the Parliament: "Progress Report on the Modernising Government Programme", December 2004, *e.g.* action Line 1: "The government will improve its service to the citizen."

20. Developing and implementing common public sector e-government building blocks like key registers, the Citizens Service Number, the Businesses Service Number, eNIK – the e-ID card, etc.

21. Dutch Ministry of the Interior and Kingdom Relations (2005), "Progress Report on the Modernising Government Programme", October.

22. *www.burger.overheid.nl*, accessed 27 July 2006.

23. The eGovernment "WebWise" Awards for example are organised by the Dutch government to promote smarter, more functional web development practices within public administration, but also to improve its e-governance and services. For more information see *www.burger.overheid.nl/award*, accessed 10 October 2006.

24. Government Online Study 2003, TNS Global, 2003.

25. Statistics Norway (2003).

26. Statistics Norway (2003).

27. eNorway Status Report (2004).

28. "Power and Democracy – A General Study 1998–2003", Main findings presented at an OECD seminar in September 2004, *www.oecd.org/dataoecd/52/54/33800474.pdf*, accessed 29 April 2009.

ANNEX B

User Take-up Measurement Approaches in OECD Countries

The purpose of this Annex is to give an overview of OECD country approaches to measuring user take-up. The annex consists of:

- an overview of the information and data collection methodology including a table summarising each country's measurement approach, if existent;
- a more detailed description of each OECD country's approach.

Information and data collection methodology

Information and data collection for this report has been carried out primarily by Mr. Jeremy Millard, Senior Consultant at the Danish Technological Institute, for the OECD secretariat through a series of bilateral information requests to the OECD Network of Senior E-Government Officials, complementary background research from open and available government sources, and information and data from OECD e-government country studies in the period 2003-08. The country descriptions in this annex have been incorporated as received from the countries themselves, or they have been fact-checked with, and accepted by the country.

Table B.1 provides an overview of the national measurement frameworks where available, the measurement method(s) applied and the user-centric data available.

Table B.1. **Overview of usage of measurement frameworks**

Country	Method	Data availability
Australia	*National measurement framework:* Yes. *Type:* Telephone survey and focus groups. *Frequency:* Annual. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Barriers, future demand, profile users and non-users, reasons for channel choice.
Austria	*National measurement framework:* Pending. *Type:* Decentralised server logs, case descriptions and periodic evaluation studies (surveys). *Frequency:* One-off. *Scope:* National, all citizens. *Other:* Started mapping of local "blind spots" in 2007.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Limited. *Other:* n.a.
Belgium	*National measurement framework:* In the process of being introduced. *Type:* Panel survey project 2005-06. *Frequency:* One-off. *Scope:* National/local, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Attitudes and preferences also measured.
Canada	*National measurement framework:* Yes. *Type:* Mail and Internet survey. *Frequency:* Biennial. *Scope:* All levels, all citizens, representative sample of whole population. *Other:* n.a.	*User take-up:* Yes (channel and frequency). *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Purpose of contact (type of service), problems in contact, service convenience, language, services for disabled, knowledge and helpfulness of employees.
Czech Republic	*National measurement framework:* No. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* Intend to rely on EU methodology.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.

Table B.1. **Overview of usage of measurement frameworks** *(cont.)*

Country	Method	Data availability
Denmark	*National measurement framework:* Since 2004. *Type:* Surveys. *Frequency:* Unsystematic. *Scope:* National, all citizens. *Other:* State of affairs has been criticised by National Audit Office and more systematic measurements are part of e-government strategy for 2007-2010.	*User take-up:* Yes. *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Attitudes and primary contact channel also measured.
Finland	*National measurement framework:* No *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* Five development programmes regarding social impact of e-government planned for period 2006-2011.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* n.a.
France	*National measurement framework:* Since 2005. *Type:* Surveys. *Frequency:* n.a. *Scope:* National/local/sectoral depending on public agency. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Measures on: attitudes, motivations, and expectations also measured, strong use of cost-benefit measures ("external benefits for the user").
Germany	*National measurement framework:* Since 2004. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* User-friendliness. *Satisfaction:* n.a. *Other:* Cost-benefit measures ("external" economic effects, both "monetisable" and "non-monetisable").
Greece	*National measurement framework:* To be implemented in the period 2007-2013. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* User-friendliness. *Satisfaction:* Yes. *Other:* Measures of administrative burden, transparency, accountability also planned.

Table B.1. **Overview of usage of measurement frameworks** *(cont.)*

Country	Method	Data availability
Hungary	*National measurement framework:* No, but in the process of being introduced. *Type:* Surveys, project-based indicators. *Frequency:* Annual. *Scope:* National. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* Not yet. *Satisfaction:* Yes. *Other:* n.a.
Iceland	*National measurement framework:* Since 2005. *Type:* Survey of all public websites in Iceland. *Frequency:* Every other year. *Scope:* All government agencies and municipalities. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* No. *Satisfaction:* No. *Other:* New Information Society (including e-government) policy was introduced in May 2008 with measurable objectives.
Ireland	*National measurement framework:* Preliminary research ongoing. *Type:* Surveys. *Frequency:* One-off. *Scope:* n.a. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.
Italy	*National measurement framework:* Not formally adopted. Experiences and practices exist. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.
Japan	*National measurement framework:* No. *Type:* Surveys. *Frequency:* One-off. *Scope:* National, business. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* *Satisfaction:* Yes. *Other:* Motivations and ease of use also measured as well as points of improvement.

Table B.1. **Overview of usage of measurement frameworks** *(cont.)*

Country	Method	Data availability
Korea	*National measurement framework:* Pending. *Type:* Surveys and interviews. *Frequency:* One-off. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Reasons for low usage also measured.
Luxembourg	*National measurement framework:* No. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.
Mexico	*National measurement framework:* Since 2005. *Type:* Surveys. *Frequency:* n.a. *Scope:* National citizen portal. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Look and feel standards of websites.
Netherlands	*National measurement framework:* First components installed in 2000. *Type:* Surveys. *Frequency:* Annual. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Transparency, responsiveness, and personalisation also measured, some use of cost-benefit measures.
New Zealand	*National measurement framework:* To be implemented in 2008. *Type:* Surveys and user research. *Frequency:* Annual surveys and one-offs. *Scope:* Representative national sample. *Other:* Review underway to establish better time series data.	*User take-up:* Yes. *Experience of service:* Yes, planned. *Satisfaction:* Yes, planned. *Other:* Measure of reasons for satisfaction also planned.

Table B.1. **Overview of usage of measurement frameworks** *(cont.)*

Country	Method	Data availability
Norway	*National measurement framework:* Yes, but not including citizen take-up. *Type:* Surveys. *Frequency:* One-off. *Scope:* National, business. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* *Satisfaction:* Yes. *Other:* Points of improvement including new functionalities also measured.
Poland	*National measurement framework:* No. *Type:* n.a. *Frequency:* Quarterly *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.
Portugal	National measurement framework: Implemented in 2007. *Type:* Surveys. *Frequency:* Annual. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* n.a.
Slovak Republic	*National measurement framework:* Yes, but not including citizen take-up. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.
Spain	*National measurement framework:* No *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* Different panel groups (*e.g.* experts and Internet users) have provided qualitative feed-back on e-government services and the national portal.

Table B.1. **Overview of usage of measurement frameworks** *(cont.)*

Country	Method	Data availability
Sweden	*National measurement framework:* Since 2005. *Type:* Surveys. *Frequency:* Annual. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. Other: Main focus on service provision and openness.
Switzerland	*National measurement framework:* Pending. *Type:* Surveys. *Frequency:* Periodic. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Knowledge about and future expectations to e-gov also measured together with main barriers and advantages, also attitudes towards e-voting and user payment.
Turkey	*National measurement framework:* Yes, since 2007. *Type:* Surveys, administrative registries. *Frequency:* Annually. *Scope:* National, all citizens and businesses. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* n.a.
United Kingdom	*National measurement framework:* Yes. *Type:* Customer satisfaction surveys. *Frequency:* Depends on agency. *Scope:* Depends on agency. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Service transformation across all channels.
United States	*National measurement framework:* Since 2006. *Type:* Surveys. *Frequency:* Annual. *Scope:* Federal/presidential initiatives. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Use by public agencies also measured.

Table B.1. **Overview of usage of measurement frameworks** *(cont.)*

Country	Method	Data availability
Slovenia	*National measurement framework:* Yes. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes, but *ad hoc*. *Other:* Demand for future functions also measured.

Note: All European Union countries are covered by the annual Eurostat e-government use surveys on citizens and businesses (use of services for obtaining information, downloading forms and uploading completed forms).

Australia

Method	Data availability
National measurement framework: *Yes.* *Type:* Telephone survey and focus groups. *Frequency:* Annual. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Barriers, future demand, profile users and non-users, reasons for channel choice.

The Australian Government has been assessing citizen uptake of e-government services since 2004/2005 through an annual study of *Australians' Use of and Satisfaction with e-Government Services*.[1] This major time series study tracks Australians' use of and satisfaction with government services delivered by Internet, telephone, mail and in-person.

The study's focus is to monitor adoption of and satisfaction with e-government services (Internet and telephone) across all tiers of government, compared with more traditional methods of service delivery. This enables governments to plan for the future delivery and prioritisation of e-government services and refine the quality and level of service delivery strategies.

The study explores:

- how people use the Internet, telephone, mail and in-person service delivery channels to contact government;
- satisfaction with these service delivery channels, including reasons for satisfaction and dissatisfaction;

- motivations for and barriers to using e-government services;
- preferences for future service delivery.

The annual study consists of a quantitative telephone survey of a representative sample of the Australian population aged 18 or above who had contact with a government agency in the previous 12 months and qualitative focus group research to better understand the results from the telephone survey.

The studies have informed design and development of the Australian Government's Online Service Point Program and in the review of service delivery options by Australian government agencies at national, state and territory and local levels.

Austria

Method	Data availability
National measurement framework: Pending. *Type:* Decentralised server logs, case descriptions and periodic evaluation studies (surveys). *Frequency:* One-off. *Scope:* National, all citizens. *Other:* Started mapping of local "blind spots" in 2007.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Limited. *Other:* n.a.

The main source of data on take-up and user satisfaction for Austria is the annual survey of ICT usage by households and enterprises conducted by the national statistics office in line with the European Union's EuroStat statistics on the Information Society.[2] In 2006, the survey contained a special set of e-government questions which focused on user experience and satisfaction:

- Enterprises using the Internet for contacting authorities, including:
  - % for information retrieval;
  - % for forms downloads;
  - % for submitting forms on line;
  - % for e-procurement;
- Persons using the Internet for contacting authorities, including:
  - % for information retrieval;
  - % for forms downloads;
  - % for submitting forms on line;
  - % for income tax declaration;

  - % for job search;
  - % for public libraries;
  - % for enrolment in universities or higher education;
  - % for health-related services.
- Reasons for no contact with public authorities via the Internet in the last three months before the 2006 survey was conducted:
  - service not available or too hard to find;
  - no personal contact;
  - no immediate response;
  - data protection and security;
  - additional costs;
  - too complicated;
  - other reasons.

Further data on actual usage can only be derived from internal application and forms server logs. Such statistics are very difficult to obtain, since decentralised e-government applications are run by a large number of authorities and service providers in all nine Austrian federal counties. In the future, a common standard for the automatic measurement of the usage of services might facilitate the compilation of a national e-government service take-up statistic.

Additionally, aspects of user take-up may also be found in the case descriptions of projects contained in the best practice catalogue[3] of Austrian e-government. Individual activities at the federal level, like evaluation studies or surveys on user satisfaction, have also been conducted in the past. Such a study was Aichholzer/Spitzenberger 2005,[4] with a survey last commissioned in 2006.[5]

According to these analyses, Austria has made a great leap forward with e-government: it joined the top group in Europe. The studies examine how far the usage of services keeps pace and what kinds of impacts are observable. In Austria, the take-up of services among enterprises has made enormous progress, to one of the highest in the European Union. Usage growth is strongest in advanced, transaction-related services, although there is still much potential to raise the usage among citizens in a socially balanced way. Impacts are identified in quantitative as well as qualitative terms: they include cost savings, increased efficiency and accelerated processing times of case handlings (exemplified among others by win-win situations in the finance and foreign trade sector), improved service and information quality, as well as some adaptation problems and reorganisation needs.

Austria does not have a national measurement framework for e-government in place, but is beginning to set one up. It is important to measure services where they are consumed by citizens. Therefore the first step was the launch in March 2007 of a project to monitor the provision of e-government service throughout all 2 357 cities and municipalities in Austria. This task aims to provide an interactive overview of the "blind spots" where coverage of e-government services is still low and needs to be intensified in order to ensure universal provision and further inclusion of all citizens in all regions in Austria. Additionally, individual activities on the federal level, like evaluation studies or surveys of citizen preferences that have been conducted in the past, will be continued. These activities can be added under a common measurement framework later on in order to obtain a more comprehensive picture of the impacts of e-government.[6]

Belgium

Method	Data availability
National measurement framework: In the process of being introduced. *Type:* Panel survey project 2005-06. *Frequency:* One-off. *Scope:* National/local, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Attitudes and preferences also measured.

The availability and sophistication of e-government services for citizens and businesses in Belgium is assessed for 20 basic public services (12 for citizens, 8 for businesses) in the measurement survey on the progress of online public service by the European Union.[7]

Belgium has a three-pronged e-government policy: firstly, laying the building blocks for e-government through the support of ICT departments of the federal administration; secondly, the computerisation of Belgian society and closing of the digital gap; and thirdly, the development and promotion of Belgium as an ICT knowledge region.

In order to support and fine-tune this policy to effectively develop new projects and applications, it is necessary to proceed from the needs and expectations of citizens. To achieve this objective, the Belgian Federal Government set up in 2005 the research programme, Fed-e-View/Citizen, which for the first time for a well-defined period maps out both the current situation and the development regarding e-government and the Information Society in Belgium. Fed-e-View/Citizen focuses both on users and non-users of

the Internet. The research was conducted from June 2005 to October 2006 by Indigov under the commission of Fedict. It provides insight into the evolution of the digital gap, the needs and requirements of the citizens concerning e-government, and the modernisation of the government. It also provides a sound basis for further developing the federal computerisation policy.[8]

The survey used representative groups or panels of Internet user and non-user populations followed in several successive waves of study. One of the possibilities with this is to monitor, very accurately and on an individual basis, developments concerning the adoption and use of computers, the Internet and other ICT (interactive digital television, electronic ID card readers, wireless networks, etc.).

The study contains several e-government-related parts:

- The knowledge and use of, and satisfaction with current e-government applications. This generates a picture of the current situation in Belgium. Although most attention is devoted here to federal applications, a number of applications of governments at the regional and local levels were also addressed (*e.g.* use of municipality websites and online services such as searching for premiums).
- The desirability and readiness to use (possible) future e-government applications was also studied. Special attention was devoted to the role of the government with regard to providing services to the population. Aspects such as communication channel preferences related to different services, multi-channel strategies, proactive provision of services, the concept of "mygovernment.be" (or a "digital safe")[9] were addressed.
- The attitudes of the Belgian population towards the provision of e-government services were also studied: what are the perceived advantages and drawbacks, which quality criteria do citizens pose, what position do they take towards the initiatives and ideas of the government on this level?

The Belgian federal government is now also working on the implementation of an e-government monitor. During 2007, this saw the development of an e-government measurement framework based on international best practices as an integrated instrument to continuously monitor and benchmark the development of ICT and e-government in Belgium. Partnerships here are essential between the statistics departments, regions, municipalities, the European Union, and private partners. The framework, which as of 2009 is in the process of being implemented, involves the consolidation of dispersed existing indicators, the development of new indicators and the collection of data in co-operation with other public and private actors.

The forthcoming e-government monitor will have five categories of indicators according to the five phases of the ICT/e-government value chain:

1. context – generic preconditions for all policy domains, whilst the following four are measurable for different policy domains;
2. input;
3. output;
4. use;
5. impact.

It will also categorise indicators by three target groups:

- citizens (individuals and households);
- enterprises and intermediate agents;
- public administrations: local, regional (regions and communities) and federal administrative entities including municipalities.

The use category will measure the uptake and intensity of use of the supply of digital content, information and services as well as the reasons or perceived barriers for not doing so in a specified policy domain:

- uptake indicators measuring the (non-)use and intensity of use of digital content, information and services supplied;
- barrier indicators measuring the perceived barriers or reasons for not using digital content, information and services.

At the impact level there will also be measurements of impacts at the micro level of the individual user using indicators of the satisfaction, the perceived benefits and the effects of the use of ICT applications.

Canada

Method	Data availability
National measurement framework: Yes. *Type:* Mail and Internet survey. *Frequency:* Biennial. *Scope:* All levels, all citizens, representative sample of whole population. *Other:* n.a.	*User take-up:* Yes (channel and frequency). *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Purpose of contact (type of service), problems in contact, service convenience, language, services for disabled, knowledge and helpfulness of employees.

Canada's e-government programme started in 1999 as the Government On-Line project with the goal to use ICT to enhance Canadians' access to improved client-centred, clustered services, anytime, anywhere and in the official language of their choice. In 2005, this was replaced with a whole-of-government service transformation agenda. Three service visions (for citizens, businesses and international clients) comprise one comprehensive vision for government as a whole. This vision focuses on outcomes in terms of client satisfaction, cost savings and efficiencies, policy outcomes and compliance, and accountability and transparency.

Alongside this approach, the Institute for Citizen-Centred Service (ICCS)[10] works with governments across Canada and around the world to improve citizen satisfaction with public sector service delivery. The ICCS has developed a Common Measurements Tool (CMT),[11] first released in 1998 as an easy-to-use client satisfaction survey instrument to facilitate benchmarking across jurisdictions. Using the CMT, public-sector managers are able to understand client expectations, assess levels of satisfaction, and identify priorities for improvement. By using the questions set out in the CMT, jurisdictions can also compare their results against peer organisations, identifying best practices and sharing lessons learned. The CMT identifies a set of "core" questions that measure the key drivers of satisfaction:

- timeliness;
- knowledge/competence of staff;
- fairness;
- courtesy/comfort;
- outcome.

Among the ICCS's most significant initiatives is Citizens First, a biennial national survey of citizen expectations, satisfaction levels and priorities for service improvement at all levels of government. The latest survey "Citizen's First 5" was published in the first half of 2008[12] based on a field survey from October-December 2007 with more than 6 000 Canadians across the country via mail and Internet.

In response to the new government-as-a-whole approach, the government of Canada announced the launch of Service Canada in 2005 to make it easier for people to get what they need, however they wish to do so, using one or more of the four channels: telephone, Internet, in person, or by mail. This new agency brings together many service and benefits delivery operations in areas such as employment benefits payments, pensions and passports, and will eventually include a full range of government services. It

also conducts public opinion research on various service areas, including contact with government services in the latest report from 2006[13] covering:

- purpose of contact (type of services, such as employment insurance, pensions, etc.);
- type of contact, *i.e.* channel used (telephone, in-person, website, mail or fax, e-mail);
- frequency of contact;
- satisfaction with services on a five-point scale from 5 = very satisfied; 1 = very dissatisfied, and along three main dimensions: staff quality, information quality, and access/speed (*i.e.* accessibility and timeliness);
- problems experienced in making contact.

The latest Service Canada Annual Report (2006-07)[14] also provides the latest results on the Service Canada Performance Scorecard across all services and channels covering the location of points of service, service convenience and service hours (including telephone response and 24/7 Internet availability), language of contact, services for multi-lingual communities and people with disabilities, the knowledge and helpfulness of employees, service standards in terms of outcomes, and overall client views and satisfaction.

Czech Republic

Method	Data availability
National measurement framework: No. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* Intend to rely on EU methodology.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.

The Czech Republic does not have a measurement framework for e-government. According to the e-Czech 2006 strategy (published in 2004), however, a regular measuring of achievements in the implementation of the State Information and Communications Policy will be based on EU methodology for the eEurope 2005 Action Plan and possibly other documents, as appropriate. This will ensure objectivity of measurement and reduce the requirements for resources for measurement, and enable benchmarking of achievements of individual EU member states.[15]

Denmark

Method	Data availability
National measurement framework: Since 2004. *Type:* Surveys. *Frequency:* Unsystematic. *Scope:* National, all citizens. *Other:* State of affairs has been criticised by National Audit Office and more systematic measurements are part of e-government strategy for 2007-10.	*User take-up:* Yes. *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Attitudes and primary contact channel also measured.

The Danish "e-government signposts"[16] methodology (Danish Digital Task Force, 2004)[17] relies on a series of Key Performance Indicators (KPI), which also includes measures on "coherent services with citizens and businesses at the centre". The following data are collected annually:[18]

- % of the population using public sector digital services;
- % of businesses using public sector digital services;
- % of documents public authorities receive digitally from businesses;
- % of documents public authorities receive digitally from citizens;
- % citizen satisfaction with public sector digital services;
- % business satisfaction with public sector digital services.

The use of e-government services in Denmark was studied in 2004 in a survey of over 2 200 Danish Internet users.[19] The study covered the following dimensions:

- knowledge of, and use of, specific e-government services;
- how often the specific e-government service is used;
- use of digital communication with the public sector;
- attitude toward digital communication;
- primary contact channel to the public sector.

The study concluded that there was a large potential for increasing the use of e-government services. The main barriers for increasing the use of e-government services included the lack of knowledge of e-government services and the public's attitude towards e-government services.[20] On this basis, a public campaign was initiated with the objective of increasing the use

of e-government services. The campaign was launched in 2005 with nine partners and targeted both citizens and businesses.[21]

The overall goals for the campaign were:

- an increase of at least 20% in the knowledge of the e-government services offered by the nine partners;
- an increase of at least 15 % in the number of visits on the e-government services offered by the nine partners;
- an increase of at least 10% in the use of the e-government services offered by the nine partners.

In 2005 the Danish National Audit Office criticised a range of ministries for not measuring the share of potential users that actually used a specific e-government service. The Audit report covered e-government services offered by six ministries including their respective agencies. According to the survey, 40% of the institutions did not measure the use of their respective e-government services.[22]

The Danish e-government strategy 2007-10[23] includes the following objectives:

- formulation of a multi-channel strategy for the public sector;
- making e-government a strategic priority in the annual efficiency strategies of the Danish ministries;
- systematic measurement of the effects of e-government initiatives.

Finland

Method	Data availability
National measurement framework: No. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* Five development programmes regarding social impact of e-government planned for period 2006-2011.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* n.a.

Finland does not have a national measurement framework for e-government in place. However, as part of the 2006 Finnish government policy decision on the development of IT management in the state administration,[24] one of the five development programmes scheduled for the

years 2006-11 was customer-centric online services to be measured by the following "social impact" measures:

- customer satisfaction survey;
- survey: trust of citizens in administration;
- the share of electronic services in all administrative services;
- placement in international comparisons of e-government;
- risk analysis and number of information security incidents causing special measures.

France

Method	Data availability
National measurement framework: Since 2005. *Type:* Surveys. *Frequency:* n.a. *Scope:* National/local/sectoral depending on public agency. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Attitudes, motivations, and expectations also measured, strong use of cost-benefit measures ("external benefits for the user").

France has a national e-government measurement system entitled MAREVA[25] which seeks to map both monetisable and non-monetisable efficiency gains, not only for public administrations but also for their users. In particular, these types of impact are mapped by the "external benefits for the user" measures:

- quality improvements:
  - simpler services;
  - personalisation;
  - new integrated services;
  - multi-channel delivery.
- 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.

- number of users affected;
- time/money saved.

In September 2007, a survey on user take-up of e-government services was undertaken,[26] which examined:

- actual user take-up of public websites:
  - profile of users;
  - visibility and attractiveness of these sites;
  - motivations of usage and barriers to use;
  - user satisfaction.
- user expectations concerning public websites:
  - how to improve existing e-services;
  - which new e-services should be provided;
  - what the conditions of successful e-services are, as seen by users.

Germany

Method	Data availability
National measurement framework: Since 2004. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* User-friendliness. *Satisfaction:* n.a. *Other:* Cost-benefit measures ("external" economic effects, both "monetisable" and "non-monetisable").

Germany has a national e-government measurement system entitled WiBe[27] (German Federal Ministry of the Interior, 2004) which seeks to map both monetisable and non-monetisable efficiency gains, not only for public administrations but also for their users.

The WiBe-Framework is one of the first frameworks for assessing the economic efficiency of federal administrations. Today, the WiBe 4.1 (2008) methodology is in full operation, being applied widely at federal, state, and municipal levels in Germany.

WiBe distinguished three aspects of the economic efficiency of IT projects of public agencies: costs and benefits which can be quantified in monetary terms; urgency of the measure (WiBe D); qualitative and strategic

importance of the IT project (WiBe Q). The new version adds a fourth aspect with the module "External effects (WiBe E)" which enables the effects of measures on "external customers" to be qualitatively recorded and evaluated. To calculate the economic efficiency in monetary terms, WiBe uses the capital value method that also takes into account the time at which costs, earnings and savings occur. To this end, the amount that arose at a specific time is "discounted" for the base year of the calculation. Costs incurred later and savings are thus included in the calculation with a lower capital value, prior to investments with a correspondingly higher amount. If appropriate, risk surcharges can also be calculated. With the capital value method, a measure is regarded as economically efficient if a positive capital value is achieved over the calculation period (normally five years for IT projects). If the capital value is positive, there is basically no need for any further assessment of the qualitative economic efficiency. If it is negative, it is absolutely necessary for the monetary calculation to be supplemented by an extended economic efficiency assessment under WiBe D, WiBe Q and if appropriate WiBe E.

For e-government measures, an assessment of the external effects should be carried out in every case. The qualitative economic efficiency assessment is carried out since WiBe 4.0 as a benefit analysis. For each quality criterion, a ten point scale is defined in which the points represent different degrees of benefit. A measure is considered economically efficient under WiBe if – after weighting and standardisation of the scales – it achieves at least 50 of 100 points.

In particular, these types of impact are mapped by the "external effects" measures:

- urgency due to demand intensity;
- user-friendliness:
  - uniform standardised access;
  - more understandable and reproducible services;
  - customer support – timely availability of information.
- external economic effects:
  - saved money, for postage, paper, travel;
  - saved time;
  - avoidance of mis-investments;
  - increased productivity for businesses.
- improved quality and performance:
  - follow-up effect for partners, *i.e.* interoperability;
  - external effect of acceleration of administrative procedures;

- improved multi-agency co-operation;
- extension of services offered.

In addition to WiBe, as part of the Federal Government's e-government programme at the federal level (E-Government 2.0), a methodology has recently been developed which provides guidance to e-government projects in estimating user satisfaction before projects are actually started. This methodology is entitled "Guideline for Demand Analysis and User Surveys" and comprises proposed approaches to the identification of target groups, their demands and maturity regarding specific services and channels and recommendations for respective tools and techniques. The guide also offers checklists with concrete questions in order to help users who are unfamiliar with user-satisfaction measurement.

The guide has been found to be particularly important as one main focus of E-Government 2.0 is to improve business process chains between administrations and businesses (G2C and G2B): the guide has proven helpful in identifying services that are actually needed.

The guide was released in August 2008. Relevant questions included are:[28]

- Checklist 1: Purposes of the e-service
  - Is it the function of the e-service to implement a law or regulation?
  - Does the e-service implement a reduction in costs and bureaucracy?
  - Is the e-service an additional service compared to what existed before (*e.g.* information, advice, etc.)?
  - Does the e-service facilitate citizens' political participation?
  - Does the e-service aim to include everyone in the knowledge society?
- Checklist 2: Composition of the target group
  - Is the target group clearly defined and homogeneous?
  - Can the target group be subdivided into segments?
  - Does the target group represent specific interests (*e.g.* scientific, political, social, etc.)?
  - Are there specific associations or interest groups into which the target group is organised?
  - Are there specific media through which the target group prefers to communicate (*e.g.* newspapers, websites, newsletters, weblogs, etc.)?

Greece

Method	Data availability
National measurement framework: To be implemented in the period 2007-13. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* User-friendliness. *Satisfaction:* Yes. *Other:* Measures of administrative burden, transparency, accountability also planned.

Greece now has a national e-government measurement framework,[29] incorporated into the Operational Programme Improvement of Administrative Faculty of Public Administration 2007-13.[30] Among other things, it will incorporate measures on user satisfaction, the level of administrative burden, and the level of transparency and accountability.

Hungary

Method	Data availability
National measurement framework: No, but in the process of being introduced. *Type:* Surveys, project-based indicators. *Frequency:* Annual. *Scope:* National. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* Not yet. *Satisfaction:* Yes. *Other:* n.a.

Hungary does not currently have an e-government measurement framework.[31] The measurement framework, a monitoring system related to the e-Public Administration 2010 Strategy, is in the process of being introduced. Twelve impact indicators have been selected from the sample of eGEP which Hungary will measure annually.

Iceland

Method	Data availability
National measurement framework: Since 2005. *Type:* Survey of all public websites in Iceland. *Frequency:* Every other year. *Scope:* All government agencies and municipalities. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* No. *Satisfaction:* No. *Other:* New Information Society (including e-government) policy was introduced in May 2008 with measurable objectives.

In 2005, a survey of public websites in Iceland was undertaken[32] which set the measurement baseline. This was repeated in 2007 with some new measurement indicators,[33] a report on the main results,[34] and detailed results for all public administration websites presented in a web-based tool.

Iceland established an e-government measurement framework in 2005[35], which includes effectiveness measures based on the service level of the website of all public websites. Last May, a new policy for the Information Society (and e-government) was introduced: *Iceland the e-Nation – Icelandic Government Policy on the Information Society 2008-2012*.[36]

Ireland

Method	Data availability
National measurement framework: Preliminary research ongoing. *Type:* Surveys. *Frequency:* One-off. *Scope:* n.a. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.

Although Ireland has an efficiency and effectiveness policy,[37] it does not at present have an e-government measurement framework, although research on requirements for such a framework is ongoing.[38] Progress in the e-government domain has been assessed in two surveys – 2002 and 2004, both of which focus on the supply side.[39] However, take-up of services has been assessed in relation to specific e-government services. One example is the Irish public sector electronic tendering site eTenders. Figures released in 2005 by the Irish Department of Finance – which manages the eTenders website –

show that the average monthly visitor number increased by 62% year-on-year and that the site had its best month of usage in July with over 96 000 visits. With a 35% rise in public authorities registered, eTenders also managed to attract almost all awarding authorities.[40]

Italy

Method	Data availability
National measurement framework: Not formally adopted. Experiences and practices exist. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.

Italy does not have a national e-government measurement framework in place,[41] but in May 2008, the government presented the guidelines for the Reform in the Public Administration in which performance measurement is a key issue.[42] This is currently being translated into operational programmes and initiatives.[43] In addition, the following initiatives are related to measurement:

- A systematic monitoring system to control the deployment of 134 local e-government projects has been put in place (corresponding to the so called first phase of e-government action plan implementation: EUR 120 million of central financing for a total investment of nearly EUR 400 million). It has allowed for the control of progress of the project and whether it achieved its objectives.[44]
- Twenty projects out of the 134 funded projects applied a partially adapted European Commission's eGEP approach.[45, 46]
- The initiative "Efficiency in the PA – Fight Against Wastes" has the objective of financing projects proposed by public administrations aiming at obtaining reduction of unnecessary activities, duplications and redundancies in public administration processes. The overall financing is EUR 22.5 million. In 2005, 13 out of 38 projects were financed by this initiative.
- A project on the customer satisfaction measurement was started by the Ministry of public administration, CNIPA (National Agency for IT in Public Administration) and University of Rome 3. The goal is to develop and propose a common methodology for customer satisfaction measurements to central government in order to establish comparability of different customer satisfaction measurements in Italy.

Japan

Method	Data availability
National measurement framework: No. *Type:* Surveys. *Frequency:* One-off. *Scope:* National, business. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* *Satisfaction:* Yes. *Other:* Motivations and ease of use also measured as well as points of improvement.

The Japanese IT Strategic Headquarters, the supreme decision-making body including the electronic administration, have executed a survey of the individuals and businesses which use e-Applications in order to know how far they are aware of, use and are satisfied with e-Applications. In 2006, MIC (the Ministry of Internal affairs and Communications, which is in charge of e-government policy) investigated 30 representative corporations in Japan (the main users of e-Applications for the central government) about how they use e-Applications and what their requests for improvement are.

The questionnaire used in the investigation was as follows:

- Do you use e-Applications?
  - Why do you use e-Applications; why do you not use e-Applications?
  - Is it easy to use e-Applications?
  - Will you continue to use e-Applications hereafter?
- Which points do you think should be improved in e-Applications?

Korea

Method	Data availability
National measurement framework: Pending. *Type:* Surveys and interviews. *Frequency:* One-off. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Reasons for low usage also measured.

The current status of Korea's efforts to enhance user take-up and user satisfaction with e-government services is: a relative lack of take-up of e-government services in view of the investment made in providing these

services. According to the e-government service take-up survey, 69% of the general public was aware of e-government services, but only 55% have used them. This problem is compounded by a lack of effort to identify the exact status of service take-up, with the main efforts directed to further upgrades or sophistication of existing services without proper analysis of low take-up.

To meet these challenges, the following actions have been taken:

- user take-up analysis in terms of access/convenience for users, information security and privacy, regulatory restrictions, etc.;
- a roadmap establishment for implementing measures to enhance service take-up;
- identification of short-term implementation measures, including an upgrade of Korea's e-government portal, the establishment of a cyber e-government promotion website, various promotion events, etc.;
- establishment of long-term implementation measures, with budget plans, cultural change, awareness raising, revision of roadmap after feedback, etc.

In April 2007, a Master Plan for e-Government Service Take-up Enhancement was established based on the following:

- Survey on E-Government Service Take-up (November 2006-March 2007):
  - market survey;
  - traffic survey;
  - in-depth interviews with citizens/businesses/government workers;
  - online survey;
  - VOC (system operation and promotion status) analysis;
  - focus group discussions.
- Marketing strategies:
  - strategy for strengthening brand identity;
  - service promotion strategies;
  - service differentiation;
  - co-marketing strategies.

The April 2007 survey results were as follows:

- Market survey results:
  - need to provide customised services based on information on customer segments;
  - need to promote interactive communication with customers;
  - need to improve access to services through diverse channels;
  - need for strengthened information linkage through private sector web portals.

- Traffic survey results:
  - visits to G2C (government to citizens) e-government services (*i.e.* e-tax, civil services portal, insurance portal, job portal, etc.) turned out to be quite low in general;
  - certain G2B (government to business) services such as e-procurement had high take-up rates.
- Interview results:
  - reasons for low usage: lack of need for e-government services (citizen), while services provided are not closely related to work (business);
  - service satisfaction rates: different rates according to different e-government services (users had high satisfaction rates for services that provided speedy feedback and service delivery, while low rates for those with slow feedback, service delivery results that did not meet customers needs, and lack of updated information).
- VOC results:
  - need for detailed guidelines and standards for effective connection with other e-government systems;
  - need for financial and human resources for service take-up measures implementation;
  - need for awareness-raising education and promotion events targeted for general public, businesses, and government workers;
  - need for co-marketing plans with private sector portals and other e-government systems.

Planned counter-measures, arising from these results, are:

- segmentation of e-government services;
- e-government service targeting and positioning;
- identification of unmet needs for e-government services;
- establishment of solutions.

Korea has also developed a vision for enhancing e-government service take-up through the convenient and safe delivery of services provided anytime and anywhere, based on a synergy effect between:

- raised awareness and service take up;
- solid positioning of the e-government service portal as a marketing platform;
- enhanced service take-up though marketing activities;
- synergy in the promotion effect through the use of events and media;

- strategies:
  - stronger brand identity;
  - various promotion measures;
  - service differentiation measures;
  - co-marketing measures;
  - more reliable e-government services;
  - better e-government service portal.

Table B.2 shows the current framework and indicators for user take-up, and satisfaction with, e-government in Korea:

Table B.2. **Framework and indicators for user take-up in Korea**

Measurement index and target	Detailed index	Definition	Survey questions	Survey method
E-government service awareness: Targeted at service website visitors and non-visitors	Awareness rate (%)	Whether user is aware of service	Are you aware of the service?	Online survey (open ended question)
Service usage frequency: Targeted at visitors	Usage frequency	Number of service usage during set period of time	Have you ever used the service and how many times?	
Service satisfaction: targeted at visitors	Materiality	Existence of physical website	How updated do you think the website is? Visual design. Menu structure for access to service. Response time when processing transaction.	Online survey (rating on 7-point basis)
	Reliability	Variety or appropriateness of service	Appropriateness of service. Variety of service. Update of information. Trust in security of service.	
	Responsiveness	Speedy service delivery to customers	Service delivery within promised time. Time for resolving problems or errors.	
	Compatibility	Customisation to customers' needs	Degree of customisation to different customers. Politeness in service delivery.	
Loyalty: Targeted at visitors	Level of loyalty	Intention to visit service website again and recommend to other people	Will you revisit the service website? Will you recommend the service to other people?	Online survey(rating on 5-point basis)

Luxembourg

Method	Data availability
National measurement framework: No. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.

Luxembourg does not currently have an e-government measurement framework,[47] but it has implemented a user take-up survey on household use of ICT in 2007 undertaken by Statec (*Service central de la statistique et des études économiques*) carried out in collaboration with TNS ILRES, which is the first of its kind. It does not seem, however, that any specific e-government measures were included.[48]

Mexico

Method	Data availability
National measurement framework: Since 2005. *Type:* Surveys. *Frequency:* n.a. *Scope:* National citizen portal. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Look and feel standards of websites.

Based on the ForeSee methodology, the Mexican government has been measuring the use and satisfaction level of e-government services provided through the national citizen Internet portal since 2005.[49] In 2007, the Mexican Presidency Internet System's Office developed a detailed report (white paper) about the Common Look and Feel Standards for government Internet portals. The ministries are already working on this subject.

The draft version of the coming e-government strategy 2008-12 includes the following action tasks:

- formulation of a multi-channel strategy to improve service delivery, and increase citizen participation;

- making e-government a strategic priority in the annual efficiency strategies of the Mexican ministries in order to improve government services;
- use of new technologies, including broadband, and how that might impact on the use of e-government services;
- a systematic measurement of the effects of e-government initiatives as a website evaluation;
- integrated services (one-stop-shop) across all government levels – federal, state and municipal.

The Netherlands

Method	Data availability
National measurement framework: First components installed in 2000. *Type:* Surveys. *Frequency:* Annual. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Transparency, responsiveness, and personalisation also measured, some use of cost-benefit measures.

The Netherlands has an e-government measurement framework,[50] which consists of different elements:[51]

- The "*Overheid.nl monitor*", which measures the level of electronic service delivery, including customer satisfaction, transparency, responsiveness and personalisation (started in 2000 and extended over the years).
- Monitoring the multiple use of data (started in 2006).
- The Standard Cost Model.
- Cost-benefits analysis for the most important e-government basic facilities.
- User satisfaction: The "*landelijke* service meter" has been in use for several years. It gives an indication of citizens' valuation of e-government services.
- Transparency: availability of basic democratic information (*e.g.* legislation, reports formal meetings) has been measured for several years.
- The quality of service delivery being an important political target, citizen and business satisfaction with the government's service delivery will be measured from 2007. The citizens' platform has developed a citizen's charter[52] of ten characteristics of good service delivery, which will be used by the government for determining the quality of public services. A uniform measuring tool is being developed.

New Zealand

Method	Data availability
National measurement framework: To be implemented in 2008. *Type:* Surveys and user research. *Frequency:* Annual surveys and one-offs. *Scope:* Represenatative national sample. *Other:* Review underway to establish better time series data.	*User take-up:* Yes. *Experience of service:* Yes, planned. *Satisfaction:* Yes, planned. *Other:* Measure of reasons for satisfaction also planned.

New Zealand applies a range of indicators in order to assess the progress of reaching its overall strategic (development) goals. Among the indicators is *Accessible State Services: Enhance Access, Responsiveness and Effectiveness, and Improve New Zealanders' Experience of State Services*.[53]

The assessment focuses on three dimensions:

- accessible state services: target group uptake of services;
- responsive state services: appropriateness of referral;
- effective state services: users' experience and expectations inform service design and improvement.

The major focus of the State Services Commission's work going forward is to gather reputable data that can inform front-line managers about how to improve service design and delivery so that New Zealanders' experience of state services improves over time. To this end, three key projects are:

- A quantitative all-of-government survey of New Zealanders, *Public Satisfaction with Service Quality 2007: The Kiwis Count Survey* (April 2008), to find out how satisfied they are with the quality of services (and support individual agencies to adopt a standard approach to assessing client satisfaction).
- Qualitative research to better understand why New Zealanders' level of satisfaction is what it is. For example, the *New Zealand E-Government 2007: Progress Towards Transformation* report.
- Quantitative research that focuses specifically on user satisfaction and experience with the online channel access to government information, services, and participation. An annual survey is being planned and the first one is expected to be in 2008.

Norway

Method	Data availability
National measurement framework: Yes, but not including citizen take-up. *Type:* Surveys. *Frequency:* One-off. *Scope:* National, business. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* *Satisfaction:* Yes. *Other:* Points of improvement including new functionalities also measured.

Norway has an e-government measurement framework[54] in the sense that the National Bureau of Statistics measures e-government efficiency gains in the state and municipal sector.[55] However, there does not appear to be any measurement of citizen take-up. A survey was undertaken regarding e-government business services, particularly the business portal *http://altinn.no*,[56] in 2007. The business user questionnaire included the following questions:

- Have you heard of the Altinn solution for simpler business reporting to government?
- Have you reported to, and used public forms, through Altinn?
- Have you, by using Altinn, saved time? Do you think all public forms should be available on Altinn? Is it easy to use Altinn? Is Altinn secure? / Has the operational stability of Altinn been good over the last 12 months? Should information on laws and regulations be available on Altinn?
- Do you know that Altinn offers dialogue functionality, *i.e.* that you can now receive letters and messages direct from the public authority through Altinn?
- Have you been in contact with Altinn's user service?
- Do you receive rapid responses when using the user service? / There is a high level of expertise available through the user service. / I solved my problem by using Altinn's user service.
- Questions on the existing and potential functionalities on Altinn.
- A question on aspects of Altinn which should be changed.
- Questions on the most important reasons for not using Altinn.

Poland

Method	Data availability
National measurement framework: No. *Type:* n.a. *Frequency:* Quarterly. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.

Poland does not have an e-government measurement framework.[57] In April 2007 Poland adopted The E-Government Implementation Plan (State Informatization Plan) for 2007-10. It is an instrument to plan and co-ordinate the informatisation of public entities' operations with respect to the public tasks carried out by such entities.[58] To date, quantitative measurement has only been on the supply side[59] and has not yet covered user take-up or satisfaction.

Portugal

Method	Data availability
National measurement framework: Implemented in 2007. *Type:* Surveys. *Frequency:* Annual. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* n.a.

Portugal's e-government measurement framework came into force in 2007[60] as a central component of the Simplex Programme[61] which covers realisation, result and impact of indicators. This includes global user satisfaction enquiries and a study on Portuguese public services using the ECSI methodology.[62] The first study was developed during 2007, and will be repeated yearly.

The status and results of the Simplex measures are designed to be accountable and participatory. They will be publicly reported every three months by the minister responsible for the programme. Every year, the Simplex Programme is also subjected to a process of public consultation. In addition, there is an independent board composed by national experts that

follow up on the execution of the programme and also proposes measures for the following year's edition.

Slovak Republic

Method	Data availability
National measurement framework: Yes, but not including citizen take-up. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* n.a.

The Slovak Republic's e-government measurement framework came into force in 2007[63] as part of the Operational Programme on the Informatisation of Society (OPIS).[64] However, it does not seem to include any usage measures yet.

Spain

Method	Data availability
National measurement framework: No. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* n.a. *Experience of service:* n.a. *Satisfaction:* n.a. *Other:* Different panel groups (*e.g.* experts and Internet users) have provided qualitative feed-back on e-government services and the national portal.

The Spanish Parliament approved, in June 2007, the Law of Electronic Access of the Citizens to the Public Services. During the preparatory phase of the law, a discussion forum was opened on the national portal in which the citizens participated actively with proposals and remarks about the content of the law. Many of these proposals were included in the approved text.

For the development of the law, the Spanish administration has acquired the engagement to measure its development continuously and to annually publish a report containing the following aspects:

- the level of accessibility of electronic services;

- the level of compliance of electronic services to the accessibility and multilingualism standard levels;
- the measurement of the use of services offered by the national portal (*www.060.es*);
- the development of departmental strategies to measure the use of services provided by each department;
- the development of informative campaigns to promote electronic services.

Once the law was approved, a Strategic Electronic Administration Plan and an associated Action Plan were launched by the government (end of December 2007). The main purpose of both is that the mandate of the law is enforced, particularly the recognised right of all citizens to communicate electronically with public administrations in equality of conditions for all.

The plan includes 21 measures grouped in the following four main areas:

1. **Citizen-oriented services**, including the complete development of an integral citizen attention network (traditional and electronic channels), from which it will be able to access any service provided by the different administrations and the organisations within them; the creation of an integrated information multi-channel network ("one-stop-shop" approach), the preparation of an electronic inclusion plan, an electronic participation plan and the start-up of a communication plan of electronic public services. The electronic participation plan, currently in its preparatory phase, will include the creation of an electronic opinion space to allow citizens to express their opinions, uneasiness and proposals regarding public services.
2. **Adapt all the administrative procedures to the law**: all the procedures must be accessible electronically. They must be offered according to the technical accessibility standards and must offer information on the state of procedure and may not collect information from the citizen if already collected by the administration. This task will have to be completed before 31 December 2009. To prepare this task, an exhaustive study of all the procedures of the Spanish administration (that contains the state of adaptation of all of them to the law, and the extent to which they are used by citizens) was carried out. More than 2 500 procedures were collected and a rigorous timetable has been established. Particular attention will be paid to the procedures most used by citizens and companies.
3. **Common infrastructures and services** with special emphasis on the consolidation of a dedicated communications network for all the different Spanish administrations (connected to the Testa Pan-European network); a digital certificate validation system of different suppliers; a modular platform for electronic procedures; a platform for services intermediation; the interconnection of the public registers of the different organisations, etc.

4. **Horizontal actions** that includes the development of the National Interoperability Scheme, an Electronic Government Training Plan for public employees, the creation of a centre of technological transfer and the launch of a plan for the monitoring and follow-up of the global Action Plan, including the creation of a dedicated office.

The Follow-up Plan has already commenced under the responsibility of the Directorate of Administrative Modernisation, with the co-operation of all the involved organisations. An integral control board of the development of the actions of the plan allows for the control of the undertaken actions and to monitor the advance of the proposed goals. The control board contains the complete catalogue of the procedures with their degree of adaptation to the law and the level of citizen use to each one. The measurements will be been refined during the coming months.

Through the Electronic Government Observatory several studies of use, demand and degree of citizen satisfaction in electronic public services have been undertaken, as well as an analysis of the economic and social impact of electronic services.

In order to promote the use of electronic public services, several informative campaigns have been carried out. Their impact has been measured through the statistics of use of the national portal *www.060.es*, reflecting a significant increase in access to the electronic services as a result of these campaigns. For this reason the Action Plan is complete with the realisation of a general citizen Information Plan.

Sweden

Method	Data availability
National measurement framework: Since 2005. *Type:* Surveys. *Frequency:* Annual. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. Other: Main focus on service provision and openness.

In 2007, the former Swedish Agency for Public Management (VERVA) launched a new model for measuring the progress of e-government in public authorities, aimed at accelerating the pace of e-government development in Sweden as well as improving the governance of this development.[65] However, user take-up and satisfaction issues do not feature as specific components of the model.

The model's main focus is increasing the effectiveness of administrations through e-government with three goals:

- automation of authorities' operations and procedures;
- the authorities' capacity to improve its procurement processes;
- efficient information processing and sharing between authorities.

The first step in implementing this model is to establish a baseline between December 2007 and 15 May 2008. Steps 2 and 3 will consist of the use of the model to measure progress by all authorities on an annual basis, starting in 2008 up to 2010.

Switzerland

Method	Data availability
National measurement framework: Pending. *Type:* Surveys. *Frequency:* Periodic. *Scope:* National, all citizens. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Knowledge about and future expectations to e-government also measured together with main barriers and advantages, also attitudes towards e-voting and user payment.

The most recent available surveys are:

1. An E-Government Trend Barometer survey published in 2006 by Bern University of Applied Sciences and Unisys had the goal to repeat earlier surveys of the perceived achievement and perception of electronic public sector services from the point of view of Swiss citizens.[66] In terms of methodology and data acquisition, the survey was carried out by computer-assisted telephone interviews using a questionnaire with 23 questions. A sample of 1,006 representatively selected persons from the entire adult resident population of Switzerland (18-74 years) was taken.
2. The survey looked at:
   - the readiness of Swiss citizens for e-government;
   - their knowledge and use of the current e-government services;
   - their future expectations for e-government services;
   - the influence of e-Voting on election turnout and the accuracy of the results.
3. Data collected related to e-government included:
   - the contact channel (in person, telephone, post/fax, by Internet);

- frequency and kind of contact;
- satisfaction with contact;
- main barriers;
- main advantages;
- disadvantages;
- accessibility of the e-Government service;
- security of the e-Government service;
- usage frequency of e-Government services;
- use of channels in the future (in person, telephone, post/fax, by Internet);
- acceptability of payments for e-Government services in the future;
- demand for future services;
- acceptability of e-Voting (election turnout, simplicity, security, etc.);
- acceptability of e-Government services to participate in political decision-making.

4. The Department of Psychology of the University of Basel published in March 2007 a survey and analysis of user satisfaction with e-government portals of the 26 cantons in Switzerland.[67] The main goal was to measure user satisfaction with the different government's portals and to collect feedback regarding problem areas, improvement wishes, and which kind of services should be prioritised in future development. Of the 901 participants, 24% reported having encountered problems while fulfilling their task on the portal. In all the cantons, these participants also showed lower levels of satisfaction most probably caused by the disruptions that took place during the task fulfilment. Eighty per cent of these problems seem to be related to difficulties in searching information (*e.g.* caused by the search engine, structure, navigation on the site, etc.). Existing e-government portals seem to be able to provide the necessary information in the desired quality – but for the time being finding this information seems to be the main problem. When asked about their improvement wishes for the portals, most participants would like to be able to dispose of better search (search engine, search options, sitemap, etc.) and navigation functionalities (navigation, structure, overview, consistency, etc.). This emphasises the importance of developing a user-centric information architecture that enables the citizens to find the desired contents with just a few clicks. Furthermore, this shows the need to implement a well functioning search engine once again.
5. Surveys of use of and satisfaction with e-government services by small- and medium-sized enterprises have been commissioned by the State Secretariat for Economic Affairs. They have been published in April 2007[68] and in April 2008.[69]

Turkey

Method	Data availability
National measurement framework: Yes, since 2007. *Type:* Surveys, administrative registries. *Frequency:* Annually. *Scope:* National, all citizens and businesses. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* n.a.

Turkey's e-government measurement framework has been in force since 2007[70] as part of the Turkish Information Society Strategy 2006-10.[71] In relation to user take-up, this includes several targets for 2010 which will also be measured:

- percentage of transactions conducted via electronic channels (target 33%);
- e-services user satisfaction index (target 80%);
- the ratio of individuals, using public services, utilising electronic channels;
- the ratio of enterprises, using public services, utilising electronic channels;
- the ratio of individuals utilising electronic channels in the area of health;
- number of visitors to the e-government gateway.

United Kingdom

Method	Data availability
National measurement framework: Yes. *Type:* Customer satisfaction surveys. *Frequency:* Depends on agency. *Scope:* Depends on agency. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* Yes. *Satisfaction:* Yes. *Other:* Service transformation across all channels.

The United Kingdom has a national measurement framework for e-government[72] reflecting public service agreements (PSAs) which set out the key improvements that the public can expect from government expenditure. The PSAs are three-year agreements, negotiated between each of the main departments and HM Treasury during the spending review process. Each PSA sets out a department's high-level aim, priority objectives and key

outcome-based performance targets.[73] Under recommendation of the Service Transformation Report, the performance management framework is set to be included in the 2007 Comprehensive Spending Review. It will recognise the importance of securing priority outcomes that stretch across departmental boundaries, driving collaborative efforts to deliver shared challenges in addition to securing continued progress on departmental objectives. It will seek to embed a greater focus on citizens and businesses within the design and delivery of public services, ensuring citizens and businesses have the necessary information to hold service delivery bodies to account and creating incentives for services to be more responsive to the needs and priorities of the users.

The United Kingdom sees online services as part of a wider approach to channels and does not have an overarching "take-up strategy". Take-up strategies are redolent of the first phase of e-government. The challenge is to mainstream e-channels as part of a normal service mix – responding to customer needs and helping organisations cut costs to free up resources to focus on the customers in need of the most help from government. Driving e-channels for their own sake won't work. In some areas, the United Kingdom sees high volume use of well-designed services that meet customer needs. Where this occurs, organisations are often using an intelligent approach to channel shift in order to meet administrative cost reduction targets.

In March 2008, the government of the United Kingdom launched Customer Service Excellence,[74] as a new standard for customer service. It is designed as a practical, user-friendly tool to be used by service delivery organisations to scrutinise services from the perspective of their customers and communities. It is aligned with the service transformation work on reshaping public services to meet the rising expectations of citizens, and complements ongoing programmes of customer-focused change. At the heart of Customer Service Excellence is an emphasis on the importance of customer insight in meeting the individual and collective needs of citizens. It works on three levels:

- continuous improvement;
- skills development;
- independent validation of achievement.

Customer Service Excellence is itself based upon research into the key drivers of customer satisfaction conducted by the opinion polling company MORI. This identified that there were five key factors, or "drivers" for satisfaction:

- delivery;
- timeliness;
- information;
- professionalism;
- staff attitude.

User satisfaction can easily be misleading. The United Kingdom has done a lot of work (much with the Canadians) to study how best to employ this in its overall approach. The recently published guidance on measuring customer satisfaction[75] has been produced on behalf of the cross-government Customer Insight Forum and deals with the role of customer satisfaction and experience measurement in driving genuine service transformation from the point of view of the citizen or business customer. The guidance touches on the role of channels and the need to tailor satisfaction measurement according to the service channels and user profile, but again does not deal with online services separately. Key messages of the customer satisfaction guidance are:

- establish clear objectives for customer satisfaction measurement: what will the organisation do with the results;
- involve all stakeholders up front, including senior management, service delivery and customer-facing staff;
- conduct an "insight audit" to find out what is already known in the organisation: do not reinvent the wheel;
- define who your customers are and where the priority focus should be;
- make sure you understand what the customer experience actually is and how the customer defines the service (as opposed to the provider);
- identify what is driving satisfaction or dissatisfaction in order to prioritise areas for attention;
- make sure the results are well communicated, actionable and auctioned so that the findings are the beginning rather than the end of service improvement.

There has been some discussion as to whether a common measurement framework is a help or hindrance. On the one hand, for example, it allows for comparison and performance checking over time, against peers and against goals or targets. On the other hand, however, it can cause problems, in particular creating tension between the objectives of central government and those of individual service providers. Nevertheless, a toolkit has been produced to help public service providers in the United Kingdom improve the experience of their customers by understanding how to undertake effective customer satisfaction measurement.[76] In providing a comprehensive and practical overview of how to go about this, the toolkit *inter alia* suggests there are four broad types of questions that make up the majority of most customer-satisfaction questionnaires:

- overall rating measures;
- service-specific questions;
- customer priorities;
- customer characteristics.

The approach to measuring take-up and satisfaction must be seen in the context of the UK Transformational Government Strategy and Implementation Plan[77] which, along with a range of devolved administration strategies, no longer talks in terms of e-government but about the delivery of good, efficient services driven by key IT enablers with the transformation of public services at its core. Since then the publication of the strategy, the Transformational Government agenda has moved to the heart of UK public service reform. The principles of Transformational Government are at the core of the UK report of service transformation, "Service Transformation: A Better Service for Citizens and Businesses, A Better Deal for the Taxpayer".[78]

Areas of progress since the Manchester Declaration at the end of 2005 of relevance to user take-up issues include:[79]

- **Customer-centric services:** Working to the Delivery Council, the Service Design Authority has completed a number of tasks that will help to provide government with the knowledge, tools and techniques for establishing the wants, needs and preferences of both citizens and businesses. The Service Design Authority is working on a service transformation delivery plan, and the website rationalisation policy, requests pan-government guidance for plans to both rationalise content and migrate it to either the Directgov or Business Link.
- **Shared services:** The CIO Council has been working to identify barriers that prevent the sharing of services.
- **The government gateway:**[80] Acts as an exemplar of the common infrastructure model, providing a means for accessing over 100 government services online for over 9 million citizens.

United States

Method	Data availability
National measurement framework: Since 2006. *Type:* Surveys. *Frequency:* Annual. *Scope:* Federal/presidential initiatives. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes. *Other:* Use by public agencies also measured.

In 2006, the Office of Management and Budget (OMB) released a report highlighting the progress and future goals of the Administration to make

government more effective and citizen-centred through improved utilisation and management of information technology. The report identifies the successes and aggressive goals set by agencies under the President's Management Agenda (PMA) E-Government Initiative to improve information resources management, enhance customer service, and for the first time, measure the impact, utilisation, and effectiveness of programmes on the users of these services.

As part of the measurement, adoption, participation and customer satisfaction of 18 Presidential e-government initiatives were tracked in order to provide a complete, timely and accurate assessment of the usage of and benefits delivered to the respective customers – citizens, businesses, and government agencies alike.[81]

OMB has posted the performance information on the 18 e-Gov Initiatives in order to provide insight into the progress of these initiatives in three key dimensions:[82]

- **Adoption/participation**: The degree to which the relevant community (agencies, bureaus, other organisations) participates in the initiative. Participation is demonstrated by contribution of information, involvement in governance, etc.
- **Usage**: The level of use by the targeted end user.
- **Customer satisfaction**: End user satisfaction with the initiative's products and/or services.

A practical example of this approach is the evaluation of The International Trade Process Streamlining (ITPS) portal, Export.gov. This portal makes it easy for small and medium-sized enterprises (SMEs) to obtain the information and documents needed to conduct business abroad.[83]

The evaluation of the portal is based on the following indicators:[84]

- adoption/participation:
  - % of agencies providing export content to Export.gov;
- usage:
  - number of registered businesses on Export.gov;
  - number of visits to Export.gov per month;
  - trade leads accessed to trade leads posted on Export.gov;
- customer satisfaction:
  - customer satisfaction with Export.gov.

Slovenia

Method	Data availability
National measurement framework: Yes. *Type:* n.a. *Frequency:* n.a. *Scope:* n.a. *Other:* n.a.	*User take-up:* Yes. *Experience of service:* n.a. *Satisfaction:* Yes, but *ad hoc*. *Other:* Demand for future functions also measured.

Slovenia has a national e-government measurement framework[85] which includes:

- an action plan for e-government;
- inquiries on the e-government portal;
- research on user satisfaction (*ad hoc*, serves as an input to the measurement framework in the action plan for e-government).

A number of integral e-government development indicators[86] and demand-side indicators have been developed:[87]

- infrastructure use;
- interest for usage;
- use of e-services;
- assessment of e-services;
- use of life events;
- wishes.

The national measurement framework of user take-up consists of accompanying data, statistics and online polls of citizens and public employees on a monthly basis, as well as measurements of user satisfaction.

Measurement of user satisfaction on the entry points (One-Stop-Shop)

The Ministry of Public Administration prepared in 2006 a survey with eight questions to measure the opinion of users about the services found on the One-Stop-Shop entry points:

- suitableness and accessibility;
- level of satisfaction with the functioning;
- friendliness of the referees and extent of information at the entry points;
- waiting time;

- performing the procedures with the use of a digital certificate;
- notice about the possible additional information at the entry points (more new services at the One-Stop-Shop) and about the reduction of administrative burdens (simplification of the interaction with public administration).

The opinion poll was answered by 1 274 users.

Call centre (Hallo Administration and Hallo Inspection)

Call centre (Hallo Administration and Hallo Inspection) are provided in co-operation with Slovenia's largest telecommunications distributor. Users of electronic services of public administration are presented with three different types of services:

- the user enters his/her question in the specially designed form, located within each electronic service or life event on the state portal;
- the user sends his/her question via e-mail to: *e-uprava@gov.si*;
- the user poses his/her question via a special phone number.

The call centre provides users with help regarding general information about the functioning of the state and public administration via phone, such as:

- contact information (phone numbers, e-mail);
- official opening hours;
- other information, available via public web portals of state bodies.

The call centre does not provide answers or information regarding specific administrative procedures. It was set up because of certain needs that became known during the evolution of the state portal. During the course of its life cycle, the State Portal has been thoroughly renovated three times, which helped to make it a truly up-to-date tool that citizens and businesses can use with their dealings with administration.

The call centre became operational on 24 June 2008. Responses from users are positive, and with bigger promotion of the service planned for the future, it is expected that the number of users will grow. That, in turn, will help to further improve the e-services and the state portal. It is clear that the feedback from everyday users presents infinite possibilities for improvement and that is the Slovenian government's final goal.

Notes

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Glossary

This glossary was compiled for the purpose of this study and describes how the following terms are used in this report.

AUTHENTICATION: A security measure for checking users' identities before they are allowed access to an online information system or application.

BACK-OFFICE: The internal operations of an organisation that support its business processes and are not accessible or visible to the general public.

ENTERPRISE ARCHITECTURE: Defines the overall structure of an organisation's processes, information systems, personnel and organisational sub-units, with a view to aligning them with the organisation's core goals and strategic direction.

EXTERNAL BARRIERS: Obstacles to e-government that require specific actions (*e.g.* modification of laws by legislature) in order to be overcome. They often concern breakdowns, missing components or lack of flexibility in the government-wide frameworks that enable e-government. The result is often the inability to achieve effective e-government implementation.

CHANNELS: Means of accessing government services, such as the Internet, telephone, or a visit to a government office. Different types of customers use different service access channels.

E-GOVERNMENT: The use of information and communication technology (ICT), and particularly the Internet, as a tool to achieve better government.

FRONT OFFICE: "Government as its constituents see it" – the information and service providers, and the interaction between government and both citizens and businesses.

INFORMATION AND COMMUNICATION TECHNOLOGY (ICT): Any equipment or interconnected system (or subsystem) of equipment that includes all forms of technology used to create, store, manipulate, manage, move, display, switch, interchange, transmit or receive information in its various forms. Such forms can include: business data; voice conversations; still images; motion pictures; multimedia presentations and others not yet conceived. Communication refers to a system of shared symbols and meanings that binds people together into a group, a community, or a culture. The word communication was added to ICT to make a network of the usage of

Information Technology. ICT refers to both computer and communication technology.

INFORMATION MANAGEMENT (IM): Operations which develop and maintain the information resources and processes of an organisation.

INFORMATION NETWORK: A system of ICT, hardware and services which provides users with delivery and retrieval services for a given set of information (*e.g.* electronic mail, directories and video services).

INFORMATION NETWORK INFRASTRUCTURE: The whole system of transmission links, access procedures, legal and general frameworks, and the basic and supportive services of the information network.

INFORMATION SOCIETY (IS): A society which makes extensive use of information networks and ICT, produces large quantities of information and communications products and services, and has a diversified content industry.

INFORMATION TECHNOLOGY (IT): The hardware, software and methods used for electronic processing and transfer of data.

INTEROPERABILITY: Organisations' ability to share information systems and/or data, generally based on using common standards.

M-GOVERNMENT: Mobile government, sometimes referred to as **m-government**, is the extension of e-government to mobile platforms, as well as the strategic use of e-government services which are only possible using mobile telephones, laptop computers, personal digital assistants (PDAs) and wireless Internet infrastructure.

MIDDLEWARE: Software that integrates services and distributed applications across the Internet or local area networks, and may provide a set of services such as authentication, messaging, transactions, etc. Middleware allows government organisations to share data between front-office service delivery channels and back-office applications and processes, both within and across organisations; it is increasingly perceived as a technology for delivery of joined-up e-government services.

ONLINE GOVERNMENT SERVICES: Services provided by, but not necessarily supplied by, the public administration to citizens, businesses and organisations (including other government organisations) through information networks.

PORTAL: A website that co-ordinates and presents information and services from a variety of providers, with the content presented in accordance with criteria related to users' needs.

PUBLIC KEY INFRASTRUCTURE (PKI): A method for authenticating a message sender or receiver and/or encrypting a message. PKI enables users of an insecure public network, such as the Internet, to securely and privately

exchange data through the use of a cryptographic key pair obtained and shared through a trusted authority. It provides for use of digital certificates that can identify an individual or an organisation, and directory services that can store, verify and, when necessary, revoke the certificates.

TRANSFORMATION: Transformation of the public sector is defined as the set of processes leading to a change in the features of the public sector from a static organisation-driven model to a dynamic user-driven model. It is about creating the environment and the basic conditions for continuous adaptation to changing demands and contexts.

USER: A user of e-government services is understood as citizens, legal entities such as businesses or non-governmental organisations, or civil servants within the public sector itself. The user is most commonly understood as citizens and businesses.

USER TAKE-UP: The adoption and frequent use by users of public services and in particular e-government services.

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