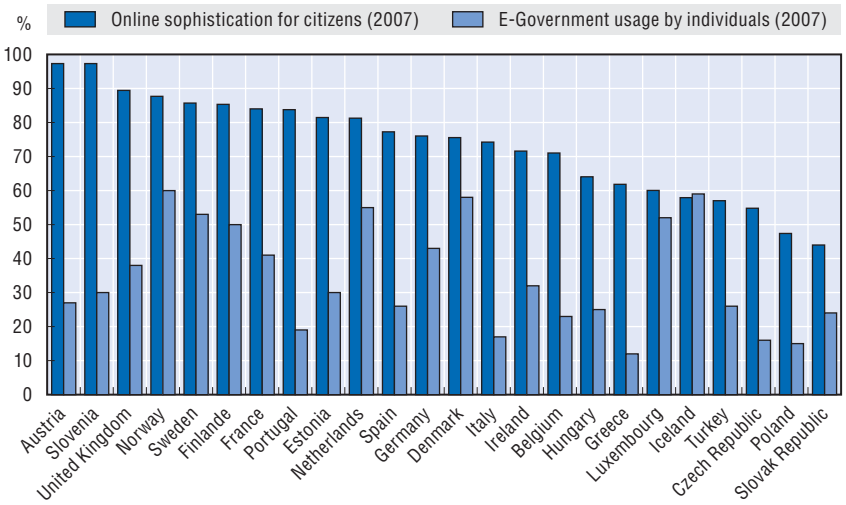
Executive Summary

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.

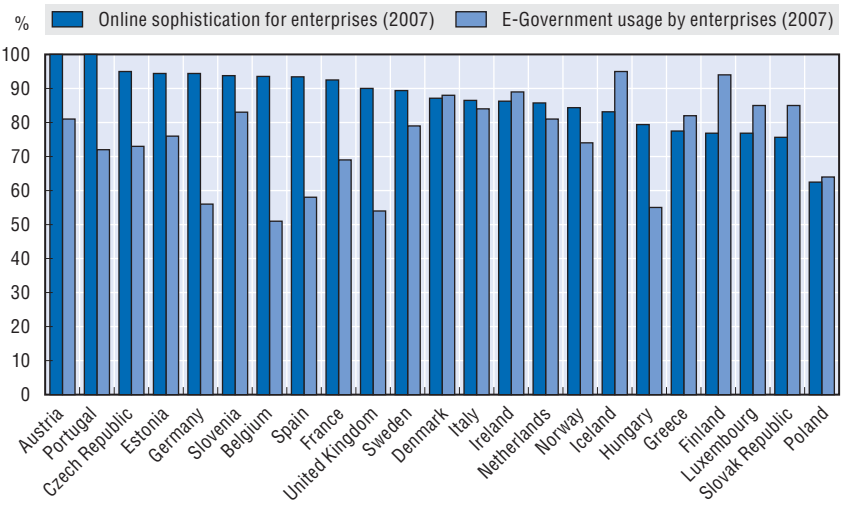
requirements in the regulation of businesses than it is for citizens where other considerations such as universality and equal treatment are more dominant. Some countries (*e.g.* Denmark, Hungary and Spain) have made selected reporting mandatory to public authorities using electronic means.

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.

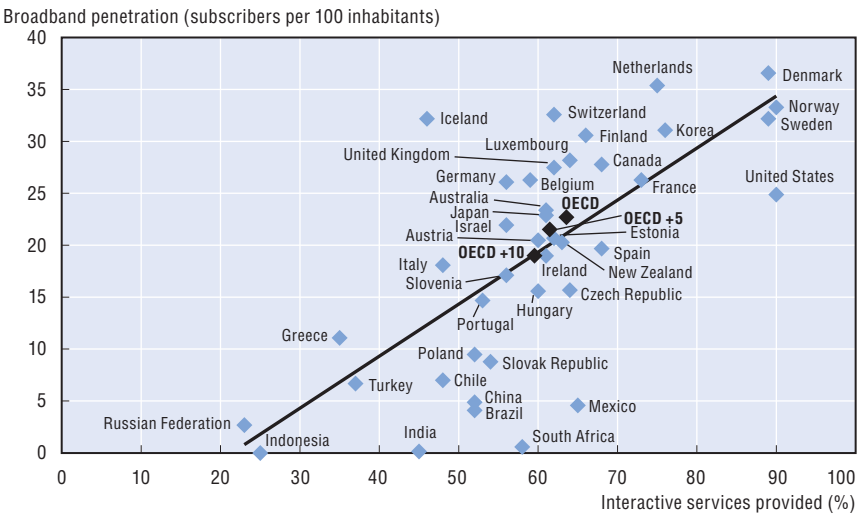
Technology-driven provision and improvement of e-government services

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)



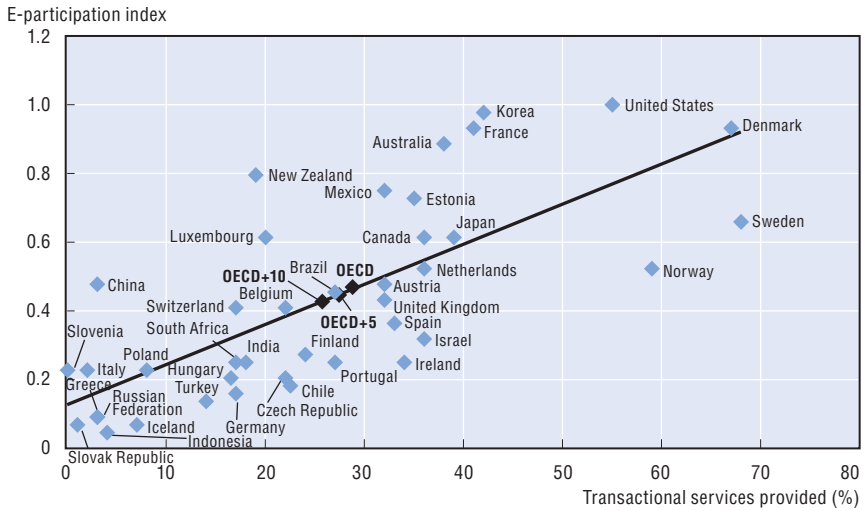
Note: "OECD" shows the OECD average. "OECD + 5" shows the OECD and the five accession countries to the OECD (Chile, Estonia, Israel, the Russian Federation, and Slovenia) average. "OECD +10" shows the "OECD + 5" and the five enhanced engagement countries to the OECD (Brazil, China, India, Indonesia,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