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?

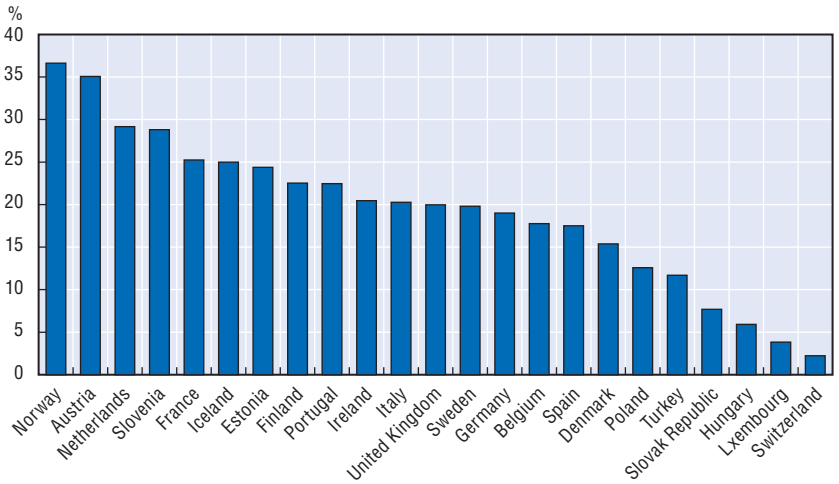
Source: European Commission (2006), *eGovernment Measurement Framework*, a presentation by Juan Arregui McGullion, DG INFSO, Brussels, 28 June.

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.