Online Availability of Public Services: How Is Europe Progressing?

Web Based Survey on Electronic Public Services
Report of the 6th Measurement
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The opinions expressed in this study are those of the authors and do not necessarily reflect the views of the European Commission.

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1 Management Summary

Capgemini has measured the progress of the online public service delivery in Europe for the sixth time. In fact Capgemini measures for the European Commission two indicators from a long list of indicators that was defined to monitor the eEurope action plans: the availability of public services online and the number of public services fully available online.

These indicators where defined in the year 2000, when the objective of eGovernment was defined as that Member States should ensure “generalized electronic access to main basic public services”.

Twenty basic public services where chosen by The European Commission and a survey framework was designed to measure the online “sophistication” of the services. The measurement was carried out for the first time in 2001 and in April 2006 the sixth measurement was launched. The Member States of the European Union—thus also the 10 ‘new’ Member States since 2004—plus Norway, Iceland and Switzerland participate in this study.

As stated by Professor Alabau, in his work on the European Union and its e-government development policy, these are the only available data concerning eGovernment “measured scientifically over a longer period of time”.

The 2006 survey registers new progress in the overall results of the supply and sophistication of eGovernment services in the EU. The online sophistication of public service delivery in the EU Member States has reached an overall score of 75% and the full availability online has reached almost 50%. Both indicators of the survey have recorded a significant global progress of almost 10%—point for the 28 countries surveyed.

Since 2001 the results have progressed, rapidly in an early phase, slower the last years.

This is the second year of benchmarking the eServices in the 10 new Member States and therefore this 6th measurement is highly impacted by the progresses made in these countries. An eloquent example is that the second and third ranking places have been allotted to two of the new Member States: Malta achieved the most outstanding progress recorded ever and moved from rank 16 to 2nd place while Estonia has moved from 8th to 3rd place and successfully entered the top 3, ex aequo with Sweden. The common key success factor in these leapfrogging countries can be attributed to the centralized political sponsorship of eGovernment programmes that have been implemented with great success these last two years.

Taking over the role of the leader in providing eServices to its citizens and businesses in the 20 measured services, Austria heads the results in both indicators (sophistication and full availability). The Austrian “eGovernment platform” is best in class and has profiled the optimized governmental eServices offering, almost reaching the full sophistication level.
Other major breakthroughs can be highlighted in the ranking of this year. For example, the Hungarian government's investment in different initiatives has paid off. It is now ranked 14 moving up nine places from last year. Slovenia as well made significant progress and has entered the top 10, moving from the rank 15 to 7 (+8).

This year’s results yet again show a wide gap in the performances in the public services for businesses (exceeding the two-way interaction in most countries) against those for citizens (some services still progressing in reaching the one-way interaction). The score for online sophistication for businesses largely exceeds two-way interaction, both for EU(10) as for EU(18). When talking about online sophistication for citizens, this is not yet the case. Two thirds of the services for businesses are fully available online against one third for citizen services.

There is a slight tendency in the “old” Member States to emphasize progresses in servicing citizens—7%-point increase compared to 4%-points increase for services to businesses regarding the online sophistication in EU (18). In the new Member States, this increase is huge in both domains (16%-point increase for citizens and 17%-point for businesses). These results are symptomatic of divergent concerns on where to focus the efforts—either being a country accustomed to the exercise that succeeded in “testing” its eServices capabilities with businesses and is now taking up the challenge with citizens performances, or being a new member state that is making major progresses to aligning its eServices performances in general to those of more experienced countries.

Taking the qualitative aspects of the survey separately, obvious progress is made in developing new innovative service delivery models but one could wonder whether governments are ready to make full use of the recent technological evolutions in order to deliver better, inclusive services for less. During the study few examples of really innovative public service delivery models where found. A good example is the Swedish tax services, combining the online channel with phone and SMS services.

Online public service supply as it was defined 5–6 years ago is now a mainstream service delivery model in the EU. We have reached the top of the first S-curve, but a new one is now emerging: the most advanced governments are developing intelligent user centric e-services.

If the delivery models change, measurement models must change with them. 2006 will be the last year that the eGovernment supply side will be measured the way it has been done until now. The new system will combine historical continuity with a review of the sophistication framework, redefinition of some services and the introduction of a user centricity index.

Another evolution is that the focus in eGovernment has shifted from “supply of services through the internet” over “the uses of all these new delivery models by citizens and special groups” to “the impact of eGovernment programmes in delivering better services to the clients, more efficient in an inclusive society”.

The new i2010 eGovernment Action Plan defines five priorities:

1. **No citizen left behind**: advancing inclusion through eGovernment so that by 2010 all citizens benefit from trusted, innovative services and easy access for all;

2. **Making efficiency and effectiveness a reality**—significantly contributing, by 2010, to high user satisfaction, transparency and accountability, a lighter administrative burden and efficiency gains;

3. **Implementing high-impact key services for citizens and businesses**—by 2010, 100% of public procurement will be available electronically, with 50% actual usage, with agreement on cooperation on further high-impact online citizen services;

4. **Putting key enablers in place**—enabling citizens and businesses to benefit, by 2010, from convenient, secure and interoperable authenticated access across Europe to public services;

5. **Strengthening participation and democratic decision-making**—demonstrating, by 2010, tools for effective public debate and participation in democratic decision-making.

Availability measurements will be combined with measurement of take up and government transformation to allow the assessment of the impact of the i2010 eGovernment Action Plan.
2 Introduction

This report presents the results of the sixth benchmarking exercise on the progress of online public services in Europe. Next to measuring the percentage of online sophistication of basic public services available on the Internet, this study also measures the percentage of public services fully available online in the 25 EU Member States, plus Iceland, Norway and Switzerland. Since 2001, the survey is executed on a yearly basis. Due to administrative reasons, no measurement has been carried out in 2005. The 6th survey was therefore executed in April 2006.

The European Commission, Directorate General for Information Society and Media, ordered the survey in the context of the eEurope program. The main objective of the study, conducted by Capgemini on behalf of the European Commission, is enabling participating countries to analyze progress in the field of eGovernment and to compare performance within and between countries.

In the following chapter, the context and scope of this study are elaborated upon. Afterwards, the results of the sixth measurement are presented, together with the progress that has been achieved compared to the previous measurements. A paragraph has been added on non-quantitative results, while a country file, elaborating on the results of each country can be found in Annex: Country File. In chapter 4, the future of eGovernment measurement is touched.

Finally, the overall conclusions on how Europe progressed since the last measurement are summarized.
The Scope of the Survey within the European Information Society Policy
The launch of the European strategy for the development of e-government was the “e-Europe 2002” initiative, presented in March 2000 at the Lisbon European Council and approved at the Council of Feira (June 2000). The main objective for e-government being that Member States should ensure “generalized electronic access to main basic public services by 2003”. Before the end of e-Europe 2002’s effective period, the Commission presented the continuation of this initiative as the “e-Europe 2005” programme at the Seville European Council in June 2002.

Concerning interactive public services the objective was that “the Member States should have ensured that basic public services are interactive, where relevant, accessible for all, and exploit both the potential of broadband networks and of multi-platform access”. When the e-Europe programme was launched the European Commission was aware that the regulatory framework required to undertake the implementation of the e-Europe initiative with any guarantee of success was lacking... The bulk of the execution of any decisions that might be adopted was going to depend on the actions of the Member States. It was in this context that the decision was adopted to apply the Open Method of Coordination (OMC) to follow up, to a certain degree, the results of the proposals that were going to be approved.

The Public Services

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<th>Citizens</th>
<th>Businesses</th>
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<td>Income Taxes</td>
<td>Social Contribution for Employees</td>
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<td>Job Search</td>
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<td>Social Security Benefits</td>
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<td>Personal Documents</td>
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<td>Car Registration</td>
<td>Submission of Data to the Statistical Office</td>
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<td>Application for Building Permission</td>
<td>Custom Declaration</td>
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<td>Declaration to the Police</td>
<td>Environment-related Permits</td>
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<td>Enrollment in Higher Education</td>
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<td>Health-related Service</td>
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2 (Com(2002) 263; eEurope 2005: An information society for all). 3 The service “social security benefits” is measured on the basis of the following sub-services: unemployment benefits, child allowances, medical costs and student grants 4 The service “personal documents” is measured on the basis of the following sub-services: passports and driver’s license
The Commission began the process of defining the indicators necessary to carry out the evaluation. A list of indicators was approved by the Council of Internal Market Ministers in November 2000. This list included only three indicators related to e-government:
- Percentage of basic services available online.
- Public use of government online services for information/for submission of forms.
- Percentage of public procurement which can be carried out online.

In order to specify the way the indicators “Percentage of basic public services available online” had to be measured, the European Commission developed and published a list of 20 public services that need detailed survey:
- For the e-Europe 2005 action plan the eGovernment indicator was reformulated as “No. of basic public services fully available online”.
- Since 2001, the Commission has entrusted the measurement and analysis of the evolution of these indicators for the 20 services to Capgemini.

This survey initially covered 17 countries: the 15 Member States of the EU, Norway and Iceland. Switzerland joined the survey for the second measurement, and for the 5th measurement, the 10 new Member States were taken into account.

The Survey Framework
In order to measure the indicator “availability of public services online”, an e-service sophistication model was developed used. This model illustrates the different degrees of sophistication of online public services going from ‘basic’ information provision over one-way and two-way interaction to ‘full’ electronic case handling.

The scoring framework (Fig.3) shows the general framework that has been refined in the survey for each public service. (See Annex 2 Definitions of the 20 public services).

The new indicator (number of public services fully available online) is measured on the basis of a two-level framework:

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<tr>
<th>Stage 1: No full availability online</th>
<th>Stage 2: Full availability online</th>
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<tr>
<td>Stage 1 contains the stages 0 to 3 of the ‘sophistication’ framework.</td>
<td>Stage 2 contains the stage 4 of the ‘sophistication’ framework.</td>
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<td>UK United Kingdom</td>
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5 In the legend of the graphs of this document, following abbreviations were used: EU(28) for all 28 countries included in the survey; EU(18) for the 15 initial Member States of the EU, plus Iceland, Norway and Switzerland; EU(10) for the 10 new Member States. 6 For some services the maximum stage is limited to Stage 3: personal documents, declaration to the police, certificates (birth and marriage), announcement of moving and submission of data to statistical offices.
Introduction
This paragraph will present the results of the sixth measurement. We break down the results in different categories, answering the following questions:

- How many public authorities are present online?
- What is the maturity of online public service delivery?
- How many services are fully transactional?
- How do individual member states progress?
- Online sophistication
- Percentage of services with full availability online
- What about the target groups: Citizens versus business?
- Fully available online
- How do public service clusters evolve?

To get a better view on the evolution of services, we have combined different services into clusters:

- Income-generating cluster: services where finance flows from citizens and businesses to the government (mainly taxes and social contribution)
- Registration cluster: services related to recording object- or person-related data as a result of administrative obligations
- Returns cluster: public services given to citizens and businesses in return for taxes and contributions
- Permits and licenses cluster: documents provided by governmental bodies giving permission to build a house, to run a business etc.

Additionally, some research has been performed on more qualitative aspects of e-services. Results of this research can be found in the paragraph on non-quantitative results.

How Many Public Authorities Are Present Online?
During this 6th survey, 12,590 service providers were recorded for the EU(28), of which about 92% had a website.

Compared to the previous measurement, this is a global increase of 8%.
A similar increase is noted for the EU(18), where the percentage rises from 87% to 95%. The EU(10) rise about 6%-point, resulting in 84% of the service providers present online.

This result is illustrated in Figure 4.

During the first measurement in 2001, 17 countries participated in the survey (the 15 initial Member States of the EU, plus Iceland and Norway).

The percentage of service providers present online for those 17 countries...
back in 2001, compared to the result in 2006 shows a remarkable increase of 20%-point (74% in 2001 up to 94% in 2006).

What Is the Maturity of Online Public Service Delivery?

Online sophistication
The level of online availability of the basic public service.

Fully available online
The total number of basic public services that are fully (=100%) available online.

The measurement of this year resulted in a score for the online sophistication of 75%. This indicates a global European maturity level of two-way interaction, while the score of the previous measurement still showed a distance of 10% from that level.

The online sophistication of the EU(10) still is about 6%-point below the EU(28), but exceeds already the global European level during the fifth measurement, which was 65%.

The EU(18) still shows a stable growth of 6%-point; while EU(10) increase with 16%-point. This is a growth even more important then the growth of the ‘old Europe’ between 2001 and 2002.

This suggests that New MS are benefiting from the learning and availability of ICT-enabled services and are ‘leapfrogging’ in progress.

How Many Services are Fully Transactional?
In general, almost 50% of the public services are fully available online.
Also with this indicator, the score for EU(10) exceeds the EU(28) score during the fifth measurement.

For services, mostly delivered on a national or regional level, the change from low to fully transactional has become easier because of more advanced technological possibilities. This is demonstrated in the clear growth of more almost 45%-point of this indicator for EU(10).

After a period with strong growth for EU(18) until 2003, a slower growth of this indicator is noticeable. The explanation is that services, provided on a national level are more easily “transformed”, compared to those services provided on a regional level.

**How do individual member states progress?**

**Online sophistication**

Figure 4 shows the online sophistication of public services in the different countries. Besides the country value in the sixth measurement, it also provides information on the growth, compared to the fifth measurement.

More than 50% of the participating countries exceeded two-way interaction (75%). Only one country has a maturity level below one-way interaction (50%).

With a large increase compared to the previous measurement, Austria leads in the country ranking. The Austrian ‘eGovernment platform’ launched different new e-service initiatives resulting in a final score of almost complete full sophistication.

What is striking is the large increase of almost every new Member State. As a result, two new Member States take second and third place in the country ranking. Estonia is a well known eGovernment leading country. With a growth of 16%-point they leapfrogged from 8th to 3rd place in the ranking (ex aequo with Sweden).

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\[7\text{ The scores in table format can be found in Annex 3.}\]
What about the target groups: Citizens vs. Businesses?

Online sophistication
When looking at the breakdown of online sophistication in the target groups, we notice a similar pattern for citizens and businesses.

The score for online sophistication for businesses largely exceeds two-way interaction, both for EU(10) as for EU(18). When talking about online sophistication for citizens, this is not yet the case.

Because of a certain degree of interaction, the score of online sophistication for businesses seems to level off. With online sophistication for citizens, there still is some room for improvement.

Identical to the global graphs on online sophistication, also in this breakdown, the gap between EU(10) and EU(18) is reduced, compared to the previous measurement (from 18% to 9% for citizens, and from 20% to 7% for businesses).

Percentage of services with full availability online
Figure 6 shows the percentage of public services with full availability online in the different countries. Besides the country value in the sixth measurement, it also provides information on the growth, compared to the fifth measurement.

For about half of the participating countries, more than 50% of the public services have full availability online.

For Austria, Estonia and Malta, this is even the case for 75% of their public services.

Compared to the previous measurement, the strong increase for Malta, Netherlands and Hungary is striking.

Specific details on every country participating in the survey can be found in “Annex: Country File”.

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8 The scores in table format can be found in Annex 3.
Fully available online

For this indicator, there is a clear difference in breakdown between citizens and businesses: a score of around 2/3 for businesses, compared to 1/3 for citizens.

Looking at the historical data in figure 12, the score for fully available online seems to level off for businesses. On the other hand, citizens still show a remarkable increase.

The difference between EU(10) and EU(18) is much bigger for businesses (19%), compared to the same difference for citizens (4%).
How do Public Service Clusters Evolve?

Income-generating Cluster

The average for this cluster is 94% for the EU(28).

The score for the service “social contribution for employees” is lower within the EU(10) for the indicator “fully available online”. An explanation for this can be built on the hypothesis that as a general rule these Member States are still working on their social security platform.

The number of income-generating services supplied online is high, but the question remains on the impact thereof on the efficiency of these services knowing that efficiency is linked to its usage.

The usage of tax services is certainly an interesting topic for measuring in terms of impact.

Although almost all of these services get a maximum score for online sophistication, we still distinguish a certain difference in quality for the specific tax services (e.g. fill the data in advance by the system, …), which is not taken into account in the current measurement model.

“Annex: The four service clusters EU(28)—Growth” provides a historical comparison, comparing results for the fifth and the sixth measurement on the service clusters.
Registration Cluster

The average for this cluster is 72% for the EU(28).

The ability for businesses to provide data to the government through the web is both for the EU(18) as for the EU(10) well developed (public services to business).

One exception that is rather low is car registration. The reason therefore is twofold: car registration is now often handled automatically in the back office when buying a car through a dealer and this is not taken into account in this measurement, besides that, not many online applications are available for citizens to register a car themselves.

It is striking that for business related services of the registration cluster, the EU(10) obtain an almost similar score as the EU(18).

“Annex: The four service clusters EU(28)—Growth” provides a historical comparison, comparing results for the fifth and the sixth measurement on the service clusters.

Returns Cluster

The average for this cluster is 71% for the EU(28).

Health related services still score rather poorly. The direct registration by patients of appointments with a doctor is not relevant, because hospitals will not allow patients to register appointments themselves, or the patient is referred to a specialist by the General Practitioner (where the GP himself/herself makes the appointment). This does not mean that no online transactional services can exist to increase the comfort of patients. For example the possibility to consult a patient’s history of appointments in a hospital, or consultation of his/her invoices. In spite of these possibilities, the score on this indicator will most likely never increase to a high level.

Job search services score rather well, with an almost unnoticeable difference between EU(18) and EU(10). Also in this case, there still can be a difference in case of a full transactional service (such as with the tax services). A measurement of the impact to effectiveness and efficiency of this service could also provide interesting results.

Public procurement scores high in all Member States. The positive impact has already been demonstrated in other studies. Also for this service a measurement of impact to effectiveness and efficiency can be interesting.

Social security benefits score poor (certainly for the indicator “fully available online”), while this service is perceived as important by the citizens. Some countries have automated this service but unfortunately can not be reflected in this kind of measurement. None of the EU(10) have a score for this service on the indicator “fully available online”, which is likely linked to the maturity of the services around social contribution.

Also for the service of public libraries, the EU(10) have some catching up to do.

“Annex: The four service clusters EU(28)—Growth” provides a historical comparison, comparing results for the fifth and the sixth measurement on the service clusters.
Permits and Licenses Cluster
The average for this cluster is 61%.

These services are mostly found on a decentralised level. This means that the investment to reach a fully transactional service is rather big. Moreover, the possibility to offer this service centrally (e.g. through a portal) is not very obvious.

As not many services already use electronic signatures, many of these services still require human interaction, while interoperability of its systems is not much developed either.

“Annex: The four service clusters EU(28)—Growth” provides a historical comparison, comparing results for the fifth and the sixth measurement on the service clusters.

Non-quantitative results
During the survey some additional research has been performed on more qualitative aspects of the e-services. Concretely, those e-service scoring stage 4 or full transactional level were assessed on aspects like:

- multi-channel delivery,
- mediation and support,
- proactivity
- service integration,
- tracking and tracing,
- accessibility9.

This research does not provide an exhaustive view, however it does provide some insights on the quality of online public services, further referred to as “eServices”, that offers qualitative evidence of good practises from some of the more progressive States.

Multi-channel access
Apart from some exceptions (like the tax declaration for businesses in Denmark and Portugal), most of the traditional channels are still in place, and new parallel channels have been created.

In some cases different new electronic channels are already being combined. As an example, Sweden can be mentioned: most Swedish taxpayers receive a pre-filled and pre-calculated version of their tax return, that they can file online using a ‘soft electronic ID’ (PIN and password provided by the Tax Board) or simply confirm by using the Tax Board’s telephone service or via SMS. This service is offered by the Swedish National Tax Board (http://www.skatteverket.se/).

But these innovative combinations of channel still remain exceptional and one could wonder whether governments are ready to make full use of the recent new technological evolutions in order to deliver better inclusive services for less.

Support and mediation
On this topic, the question was whether the different eServices were accompanied by mediation services; are help-functionalities offered or resources available to help the citizen or business with this service?

In most countries, fully transactional services are well supported, although there is still room for improvement. No correlation has been found between the score on an indicator and the presence of mediation services for a country.

There is also an equal level of help functionalities available for EU(10), compared to EU(18).

As an example the Bundesministerium für Bildung Wissenschaft und Kultur in Austria (http://www.stipendium.at/) offers online help on student grants. Also a hotline is available.

9 These additional questions are not taken into account for the final score.
Proactivity
The goal of this subject was to investigate whether the eService was accompanied by proactive actions. Are e.g. alerts generated, or pre-populated files.

Except for tax services in some Member States, the services are mostly still reactive, which means that the action must be initiated by the citizens.

An example of proactivity is the tax service in France (http://www.impots.gouv.fr/), where tax declarations will be filled in by the tax authorities and after verification of the information, citizens will simply have to sign and return them.

On the other hand, a lot of effort has been put in combining service bundling with multi-channel access and PPP (public private partnership).

In different countries the registration of a car is organized via a back-office connection between the car dealers and the registration office. The car dealer also has the possibility to register insurances.

Tracking and tracing
The idea of tracking and tracing is linked to the ‘Amazon’ principle: a customer can follow the main steps of the delivery process (acceptance, treatment, shipping...) of the services requested. Our research showed that this principle is far from established in the public sector.

An example of tracking and tracing was found during our survey of Malta: through the website http://www.certifikati.gov.mt/, people all over the globe can request online Maltese birth, marriage and death certificates.

This electronic system also offers:
- An instant electronic acknowledgement for every single application received,
- An email (where applicable) informing the applicant that the certificate requested has been processed, and will be posted to him at the indicated address,
- An explanation when an application for some reason has not been accepted and consequently rejected.

Accessibility
The question was whether the full transactional services support access for special groups, and to what extent compliance with W3C or other accessibility standards was available.

Surprisingly in the different countries none of the countries scored well on this subject.

A good example is again the Austrian portal http://www.help.gv.at/ carrying the W3C AAA icon, indicating conformance level “Triple-A”.

Multi-lingual access
Although the positive result on the question “to what extent does a full transactional service provide multi-lingual access” at this moment is average, more and more effort is put into supporting different languages online. Especially the EU(10) try also to offer online services in English next to the national language(s) of the country.

Service integration
Service integration is the strategy where different services which could be needed simultaneously are offered in combination.

Bundling of services only occurs occasionally. Governmental portals can be found in different Member States.

An example is the portal-website http://www.help.gv.at/ in Austria that is organised on an event basis.

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5 The Future of eGovernment Measurement

New service delivery models
As described in Section 2 this measurement framework was developed at a time when implementing eGovernment was still primarily looked upon as “bringing public services on the internet”. National, regional and local public service providers developed a new delivery channel, first only to provide information and later to facilitate interactive service delivery to the public, the citizens and the business.

At that time concepts like “inclusive design” of online services, “channel choice” and “take up” had not yet shifted from the private to the public sector. The evaluation of the impact of the eGovernment programmes in terms of public added value and efficiency gains for the public sector and most importantly for the users were typically not centre-stage of the political agenda. Neither too was the recognition that efficiency and user value could be delivered by working across public administrations to design seamless, ‘joined-up’, needs-based eservices.

This supply driven approach was certainly useful in these early days. Member States were encouraged to develop national eGovernment programmes and strategies. And the measurement framework that was developed by Capgemini and the European Commission has proved to be a solid methodology to measure the progress of this supply driven strategy.

But meanwhile the world changed and the eGovernment paradigm shifted. Broadband is available almost everywhere through different kinds of networks and technologies, the discussion being now at the level of the ‘last mile’; connecting houses in remote rural areas. In Europe, 50% of households are connected to the internet. As already demonstrated in the measurements of previous years, transactional online services became mature mainstream service delivery models, certainly in the more IT mature European countries.

New “disruptive technologies” emerged, like intelligent agents and interfaces, semantic web, web “2.0”, ambient intelligence… New interfaces were tested: iDTV, mobile TV, advanced mobile interfaces. These advanced technologies can differentiate services and delivery to meet user needs and diversity. And governments are piloting them in eGovernment projects.

Even without waiting for these new technologies Governments developed new service delivery models, using multi-channel delivery systems through public private partnerships and one stops shops. The service ‘car registration’ is a good example of this evolution: different governments developed systems where car-dealers, insurance companies and public car registration offices make their back-offices interoperable to provide joined-up services: you buy a car and the car dealer has direct online access to the registration office and to insurance companies, so that he can deliver a bundled service and separate visits to the other service providers are needles.

Advanced tax declaration services are no longer replicates of paper forms in an electronic version but became intelligent services gathering data from different interoperable back
offices and providing the citizens a proposition of a tax declaration that they can accept or amend. The acceptance can be done not only via the internet but also via other devices.

Social security benefits, rights that are due to citizens on the basis of their specific situation as a disabled, a parent or an elderly, are in some countries more and more automated: citizens don’t have to apply for them, they receive them automatically. Why should a citizen be obliged to provide five times the same information concerning their condition in order to receive different rights linked to that specific condition? Is it because the service providers are different? Interoperability of the back offices of these service providers reduces this need for redundant information provision.

eServices have in many cases transformed. The original measurement framework was not designed to capture these new evolutions and thus a review of the overall framework is required.

The world is not changed by technology…

…Or by the supply of e-services, but by those using them or not using them. The issue of low take-up of eServices is currently an important question. Governments realize that huge budgets are invested in eGovernment programmes and e-public services that are used by too few people. When we compare the results of the supply indicators with the most recent (2005) available Eurostat indicator on the use of online public service, there seems to be a low correlation between the availability and the use of online services for citizens.10

Because of a learning curve between installation of the service, and take-up by the citizens and businesses, some caution must be taken into account when comparing supply and usage.

The sophistication of online services for businesses is covered by a higher usage.

Impact measurement became an important topic since a Commission “eGovernment Communication” (2003) underlined “the need for further research into the economics of eGovernment, for a better understanding of costs and assessment of benefits and performances”. The European Commission ordered a study on an eGovernment measurement framework, the “eGep project”. The project developed a measurement model based on existing impact measurement models and is a useful

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10 For 2006 EUROSTAT will provide separate information on the use of each of the 20 basic public services, but this information will only be available by the end of the year. 11 No data was available on “E-government usage by individuals (2005)” for Denmark, France, Germany, Malta, Spain and Switzerland. 12 No data was available on “E-government usage by enterprises (2005)” for France, Iceland, Luxembourg and Switzerland.
In the mean time, on the 25th of April 2006, the European Commission adopted the i2010 eGovernment Action Plan (Accelerating eGovernment in Europe for the Benefit of All). The Action Plan defines five priorities:

1. **No citizen left behind**: advancing inclusion through eGovernment so that by 2010 all citizens benefit from trusted, innovative services and easy access for all;
2. **Making efficiency and effectiveness a reality**—significantly contributing, by 2010, to high user satisfaction, transparency and accountability, a lighter administrative burden and efficiency gains;
3. **Implementing high-impact key services for citizens and businesses**—by 2010, 100% of public procurement will be available electronically, with 50% actual usage, with agreement on cooperation on further high-impact online citizen services;
4. **Putting key enablers in place**—enabling citizens and businesses to benefit, by 2010, from convenient, secure and interoperable authenticated access across Europe to public services;
5. **Strengthening participation and democratic decision-making**—demonstrating, by 2010, tools for effective public debate and participation in democratic decision-making.

The Commission requested the development of benchmark indicators for each of these priorities. Currently a consultation process is taking place to address the implementation of those indicators in a measurement system.

### Piloting new indicators

In parallel with this 6th measurement of the availability of public services online, a pilot study “to develop and improve the eGovernment indicators” was launched. This study aims at the development and the testing of new indicators focusing on the most determinant features for take up of online services by citizens and to contribute towards achieving better and more inclusive public services. Also known as ‘LOT2’ this study analyses existing national standards and guidelines and tries to extract some common indicators concerning accessibility and user centricity. It is expected that the findings of this pilot will feed in to future editions of this survey in some way or another.

This is indeed a complex and moving landscape that certainly will influence the format of the next edition of this study.

An adapted edition of the current generic measurement model tries to put these different moves in perspective:

The logic behind the model is that specifics of a nation, a region or a local environment, should be taken into consideration by studying “the structural landscape”. A readiness assessment for eGovernment programmes (national, local, organisational) should cover different technical and organisational building blocks. The output should be measured as a combination of supply indicators (availability, accessibility etc.), organisational indicators (process redesign, data streamlining etc.), use indicators. A combination of those indicators can provide insights in the outcomes of the eGovernment programmes.

The eGovernment indicator systems described above are:
- The actual availability indicators measured in this study are clearly supply output indicators
- The ‘Lot 2’ indicators will be qualitative supply indicators, focusing on user-centricity
- The ‘eGep’ indicators are supply, organisational and use indicators, meant to monitor the implementation of the i2010 eGovernment Action Plan.
- Data from the Eurostat Household and Enterprises surveys monitor take up of online public services.

The integration of these different systems in one measurement model should be the outcome of the actual European consultation process.

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### Figure 19: The Holistic Measurement Model

[Diagram showing the holistic measurement model]

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<td>eGovernment</td>
<td>Data</td>
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</tbody>
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The actual availability indicators measured in this study are clearly supply output indicators.
6 Conclusion

The survey, performed in 2006, has registered a new progress in the overall results of the supply and sophistication of eGovernment services in the EU.

The online sophistication of public service delivery in the EU Member States has reached an overall score of 75% and the full availability online has reached almost 50%. Both indicators of the survey have recorded a significant global progress of almost 10%-point for the 28 surveyed countries.

Online public service supply, as it was defined 5–6 years ago, is now a mainstream service delivery model in the EU. We reached the top of the first S-curve; now a new one is emerging: the most advanced governments are developing intelligent user centric e-services.

Taking the role of the leader in providing eServices to its citizens and businesses in the 20 measured services, Austria is heading the results in both indicators (sophistication and full availability). The Austrian “eGovernment platform” is best in class and has profiled the optimized governmental eServices offering, almost reaching the full sophistication level.

Being the second year of benchmarking the eServices in the 10 new Member States, this 6th measurement is highly impacted by the progresses made in these recently joined countries. An eloquent example is the second and third ranking places that have been allotted to two of the new Member States: Malta achieved the most outstanding progress recorded ever and moved from rank 16 to 2nd place while Estonia has moved from 8th to 3rd place and successfully entered the top 3, ex aequo with Sweden.

The survey reveals there is a modest but constant growth in online sophistication of 6%-point in general in the “old” Member States while the growth in the new accessed Member states is by 10%-point more important (an average of 16%-point growth). The common key success factor in these leapfrogging countries can be attributed to the centralized political sponsorship of eGovernment programmes that have been implemented with great success these last two years.

This year again shows a deep gap in the performances in the public services for businesses (exceeding the two-way interaction in most countries) against those for citizens (some services still progressing in reaching the one-way interaction). Nevertheless, although both categories are showing a rise in their results, there is a slight tendency in the “old” Member States to emphasize progresses in servicing citizens (7%-point increase compared to 4%-points increase for services to businesses regarding the online sophistication in EU(18). In the new Member States, this increase is huge in both domains but maintains a similar effort invested (16%-point increase for citizens and 17%-point for businesses).

These results are symptomatic of divergent concerns on where to focus the efforts as either being a country accustomed to the exercise that succeeded in “testing” its eServices capabilities with businesses and is now taking up the challenge with citizens performances or being a new member states that is going through making major progresses to aligning its eServices performances in general to those of countries being longer in the race.

Major breakthroughs can be highlighted in the ranking of this year (apart from Malta which is overthrowing the scores). The Hungarian government has taken paying initiatives that led their country from rank 23 to 14 (+9). Slovenia as well made significant progress and has entered the top 10, moving from the rank 13 to 7 (+8).

Taking the qualitative aspects of the survey separately, obvious progress is made in developing new innovative service delivery models, but one could wonder whether governments are ready to make full use of the recent technological evolutions in order to deliver better inclusive service for less.

2006 will probably be the last year that the eGovernment supply side will be measured in the way it has been done until now. The new system will combine historical continuity with a review of the sophistication framework, redefinition of some services and the introduction of a use centricity index. Supply side measurement will be combined with measurement of take up and government transformation to allow the assessment of the impact of the i2010 eGovernment Action Plan.
7 Annex: Country File

The country file provides more detailed information on every country that participated in the survey.

The first part is a graphical representation of the country results. How is the country progressing throughout the measurements, and in comparison with the different global European indicators EU(28), EU(18), EU(10)?

The different services that are offered online must be easily accessible and secure at the same time. A paragraph on eAuthentication gives an indication of the current country status.

Detailed information on this subject was found in the National IDM Profiles of the Modinis-IDM website (https://www.cosic.esat.kuleuven.be/modinis-idm/twiki/bin/view.cgi/Main/NationalProfiles).

Services are continuously evolving, so the information in this paragraph only gives an indication of the present status.

Striving to offer better, easier, more complete services to their citizens, the countries have put a lot of effort in improving the offered e-services. Their latest innovative e-service developments certainly increased the country result for online sophistication.

But also future initiatives are mostly in place to improve online sophistication and full availability online.

Very valuable information on this subject was found in the eGovernment news of the IDABC website (http://ec.europa.eu/idabc/en/chapter/329 and http://europa.eu.int/idabc/egovon)
Austria (A)

Austria has improved the availability of public e-services significantly between 2002 and 2003 and has since then experienced a constant growth to become Europe’s leading country.

This success is built on established enablers such as a clear and explicit vision and strategy, a legal eGovernment framework, top-leadership, an innovative eID system (Bürgerkarte).

According to Eurostat data, the use of e-government services by citizens in Austria is above the EU average (29% against 22% EU) but stays far away from the Scandinavian leading countries (> 50%). Up-take by citizens seems to be a point of interest for further action.

The take up of e-services by businesses is high (75% against 57% EU) but stays also behind take up in Scandinavian countries.

Innovative e-service developments

The Austrian Electronic Data management system of the Ministry of Environment allows a full transactional online service for the EU-ETS annual reporting of the emissions, including verification by independent (third-party) verifiers.

eAuthentication

The Citizen Card (Bürgerkarte) is a smart card embedded with an electronic signature and a digital certificate, which enables citizens to securely access electronic public services and complete administrative procedures electronically. The originality of the Austrian e-ID concept is that there is not just one single type of Citizen Card. In principle, any card which makes it possible to sign electronically in a secure form and to store personal data is suitable for use as a Citizen Card. In addition, a ‘light’ Citizen Card service can also be used with mobile phones, enabling Austrian citizens to digitally sign documents and securely transact with government via mobile phone.

Initiatives for the future

The Federal Procurement Company BBG (Bundesbeschaffung GmbH—BBG) has launched E-shop, an electronic catalogue purchase system. Registered users can browse catalogues of products and services based on the BBG’s framework agreements, and place orders directly online. The service is currently in pilot phase. In addition, the BBG has created, in cooperation with the newspaper Wiener Zeitung, an e-tendering pilot service.

A central procurement portal is planned for implementation in the next two years.
Belgium (B)

The Belgian scores for both indicators move closer to the EU(18) average. They are comparable to the EU(28) value, or even higher in case of the indicator “fully available online”.

Belgium works hard on organisation of the back office and enablers like the eID card. A number of services concerning social security have been automated, but are not taken into account and therefore not reflected in the country result.

**Innovative e-service developments**

Since 1/7/2003 the Commerce Registry administered by the Federal Public Service Justice has been replaced by a Crossroads Bank for Enterprises and a series of 10 Enterprise Counters providing one-stop shop services for businesses.

These Enterprise Counters are administered by accredited private organisations. (e.g. chambers of commerce) Most of them make it possible to register a business online

The website is accessible via http://www.kmodirect.be/evap/direct.kmodirect_home.show

**eAuthentication**

The most significant IDM eGovernment project in Belgium is the introduction of the Belgian Personal Identity Card (BELPIC), an electronic identity card that should facilitate access to eGovernment services for all Belgian citizens.

It has the size of a bank card, and contains among other identification data also a photo and the national registry number. Data is printed on the card as well as integrated electronically on a chip.

The chip should also contain two electronic key sets, allowing the authentication of the citizen and the use of a qualified electronic signature.

The eID card is being deployed since the second half of 2003, and rollout is envisaged to be completed around the beginning of 2008.

Along with this rollout, the organisation of public services is also undergoing reform to ensure efficient and secure exchange of information, and to increase the number of services available to eID card holders.

**Initiatives for the future**

The Federal Public Service (Service Public Fédéral—S.P.F.) for Social Security has implemented a set of special services for disabled persons in Belgium that are under the responsibility of the Directorate General for the Disabled Persons. This public institution aims to collect and manage applications issued by disabled citizens to obtain a medical recognition and to receive social benefits for disabled persons.

Obtaining that particular social help is
The application process can use the new electronic ID card to identify users online and will take advantage of the civil servant LDAP from the Crossroad Bank for Social Security to give access to the users.

The website is http://www.handicap.fgov.be/ and starting July 1st 2006 only the electronic process will be authorized to start the application process.

The Belgian government has developed a computerized application at the Disabled Persons DG that is made accessible for all municipalities. This automated tool now allows an immediate and effective two-way interaction:

- In a first phase, the computerized tool enables the disabled persons' applications to be directly inserted in the Federal Public Service for Social Security, without being required to enter other personal data of the applicant (since the social data's of all Belgian citizens are already included in the Crossroad Bank for Social Security database).

- Second phase will consist of returning an acknowledgement receipt of the application to the municipalities as well as sending over pre-filled in administrative and medical forms with applicants' data's held at the Crossroad Bank for the applicant to fill in the remaining details.

via a process of applications made at the municipality where the applicant has his or hers main residence.
Cyprus (C)

The increase for both indicators runs parallel to that of the EU(28). Online sophistication in Cyprus almost reaches the same level as the EU(10) value.

Innovative e-service developments
The Road Transport System provides services through the web regarding car registration, car information and driver's license availability. Services regarding the technical inspection of the vehicles are also available through the web as from January 2006.

The website is accessible at http://rtd.mcw.gov.cy/

Initiatives for the future
A web-enabled system (http://www.grants.mof.gov.cy) will allow the public to submit their applications for child allowances and to have access to related information (e.g. application status) via the Internet. The web-enabled system is expected to be available through the Internet by mid 2006.

The Social Insurance information system, which will provide services through the web regarding the payment of social contributions for employees or for the self-employed, is expected to be available to the public in June 2006.

The implementation of an electronic questionnaire is expected to be completed by the end of 2006 which will allow the submission of statistical data electronically.

A study for an electronic procurement system is expected to be completed by the end of 2006 and the implementation of the system is due to be completed by 2007. The objective is to conduct a significant part of public procurement transactions through electronic means by the end of 2007 and to achieve generalised e-procurement by 2010.

eAuthentication
In Cyprus, a single identification number is assigned to every newborn, every foreign worker in the Cyprus’ labour market pension fund and everybody who has to deal with tax affaires.

This single identification number is managed in the database of the Cyprus Civil Registration System, managed by the Civil Registry Department under the authority of the Ministry of Interior, and usually used as primary key in almost every governmental IT system.
Czech Republic (CZ)

The score for the indicator “online sophistication” has slightly increased. Compared to the EU(10) value, a decrease can be noticed.

**Innovative e-service developments**

The customs administration of the Czech Republic has created online services to facilitate trade and custom declarations.

The website is accessible at http://www.cs.mfcr.cz/

**eAuthentication**

Currently, each resident in the Czech Republic is required to possess a conventional identity card. Electronic identity tokens for all citizens are not yet in place.

The unique personal identification number, issued by the Ministry of Interior, is based on date of birth plus a special number, making it unique.

The Czech Ministry of Labor and Social Affairs is currently the only state organisation using chip cards in significant numbers. The ministerial eIDs are mainly used for accessing the ministry's information system or exchange of confidential information within the ministry. For the future, a governmental project is planned to provide so-called “professional” chip cards for public administrative staff.
**Denmark (DK)**

The score for Denmark on both indicators stays above the EU(28) and EU(18) values. There is a similar increase for the result of Denmark as compared to the general European value EU(28).

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**Innovative e-service developments**

Citizens in Denmark can submit their tax declaration online. The online tax services of the Customs and Tax Administration (ToldSkat) can be used with PIN or digital signature.

The website is accessible at http://www.tastselv.toldskat.dk/

A growing number of public services in Denmark can only be accessed electronically. For the past year, for example, companies dealing with public administrations must submit their invoices electronically—at the risk of their bills remaining unpaid. Also, Danish citizens must now nominate a single bank account for all their dealings with the state, and electronic transfer is replacing cash or cheques for the payment of state benefits, pensions, etc.

The government is aware of the fact that it is impossible to close down the traditional channels without providing adequate alternatives. Some solutions to overcome the digital gap are installing delivery models through intermediaries, and providing the service through community centers.

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**eAuthentication**

Denmark does not offer electronic ID cards or electronic identities, and has shown no intention to do so. Since February 2003, the Danish government provides “free digital signatures” to its citizens as a means for user authentication. The concept is commonly referred to as the “public digital signature”, allowing citizens to make use of online public services in a secure way.

The 1st of February 2005 was the second eDay for Denmark. From that day on, all public administrations are able to use digital signatures and secure email, allowing all citizens to communicate electronically and in a secure way with government bodies.

Since April 2006, some public services are only available by electronic means, obliging citizens to use them online.
**Initiatives for the future**

Denmark is facing many challenges in the years from 2006 to 2010. The multitude of challenges are met by a wide range of political initiatives that are critical for the future development and operation of the public sector. In addition, several projects directly influence how citizens and businesses use information technology for solving a number of tasks. Here are some examples:

- The Government's modernization program, which comprises a large number of projects
- The E-government Strategy, including e-day and a number of digitalization projects
- Sector strategies such as the strategy for the health sector
- The Danish Municipal Reform, by which authorities will be combined and tasks will be transferred
- The Globalization Initiative, which focuses on a wide range of strategic efforts.
- A large number of local development and innovation projects within the individual authorities, such as consolidation of the IT portfolio at enterprise level.

**OIO–Offentlig Information Online**

(public information online) is a website and an electronic newsletter offering information, knowledge and access to tools in relation to IT in the public sector as well as public sector communication.

**OIO E-government Architecture** is a cross-organizational enterprise architecture focusing on the public sector administration, service, procurement and other public sector activities.

Strategy for OIO Architecture describes where the public sector architecture needs to go, and sets a frame for the next five years of architecture and standardization work in the public sector.

More information can be found on the website http://www.oio.dk/
Estonia (EE)

The score of Estonia on both indicators is significantly above the EU(10) value, as well as above EU(28). The increase is comparable to that of the general European indicator EU(28).

### Innovative e-service developments

At the Estonian Population Register, it is possible to make the announcement of moving by sending a digitally signed document.

By doing so, a person is automatically identified, so there is no need to present any other identifying documents.


An online system ([https://www.sais.ee/index_en.html](https://www.sais.ee/index_en.html)) is in place for enrollment in higher education, where you can see immediately if you have been accepted to a university. This is possible because the results of high school examinations are already in the online database.

You can enter SAIS with an Estonian national ID-card or through one of the Estonian internet banks.

### eAuthentication

In Estonia, the first steps to develop an electronic ID card were taken in 1997.

The ID card is mandatory for Estonian residents and foreigners living in Estonia with a resident permit for at least one year.

The main functionalities include the regular identity document, an electronic identity and the possibility to generate digital signatures.

Other possible applications are buying e-tickets, driver’s permit verification, or even Internet voting in 2005.

### Initiatives for the future


The Plan sets out 16 priority action areas in which the government would like to see significant progress in 2006, including the further development of geo-information services (eGIS), increasing the share of electronic document management and digital archiving in government departments, and development of a coordinated social welfare information and service system. Many of these projects have been supported, since 2005, by the European Structural Funds. Efforts will also be made to improve interoperability with other EU information systems.
Innovative e-service developments

According to the Population Register Centre in Finland, all births in maternity hospitals in Finland are now recorded electronically in the national population information system. This takes less than a day, and improves among other issues the child’s data handling in the hospitals.

In Finland the service ‘Announcement of moving’ is facilitated by a joint e-service recently launched by the Finnish Post and the Population Register Centre, and enables citizens to submit a single address change notification online to a great number of public and private organisations. This convenient service helps users make sure that they keep receiving their mail and keep benefiting from important services after moving to a new residence. For increased accessibility, the service is delivered across multiple channels.

Indeed, the single address change notification can be submitted:

- Online, via the joint service website. This requires electronic identity verification, based on a Post user name, an online banking user ID, or a national electronic ID card.
- Over the telephone, by calling a special number.
- Over the counter, at a post office.

The address change information is then automatically sent to both the Population Information System (Local Register Office) and the Finnish Post’s address information system. This ensures that a wide number of government bodies (such as the vehicle administration, the Social Insurance Institution, the tax administration and the Finnish Defence Forces) as well as private sector service providers—including banks, insurance companies and pension institutions—will also receive the new address and update their records accordingly.
eAuthentication
The Finnish system is based on a concept of a Citizen Certificate, consisting of first name and last name of the citizen, together with a unique electronic user ID, called electronic client identifier (SATU). The Citizen Certificate can be used for strong authentication, for creation of legally binding electronic signature and for the encryption of emails and documents.

The Finnish Population Register Centre (PRC or VRK) is responsible for the Citizen Certificate, as well as for the electronic ID card (rollout started in December 1999). In April 2002, the portal http://suomi.fi was launched, grouping all kinds of public services available to Finnish citizens. Since 2004, the eID can be used to access municipal services.

Initiatives for the future
Electronic voting will be tested in 2007 for Parliamentary elections in the cities of Karkila, Kauniainen, and Vihti, and should be available in the whole of Finland in 2009.

Finland’s Tax Administration (TA) prepares a new range of online services that will make it far easier and more convenient for taxpayers to file and modify their tax declarations. By mid-2006, it aims to enable users to modify their tax identification details and, in the longer term, their pre-completed tax declaration forms via the internet.

Thanks to a new service platform the TA is bringing online many services whose implementation previously required a phone call, correspondence by post or visits to a tax office. For example, the ability of employees to change their withholding allowance certificates, known as tax cards, will be the first service available online this spring, followed by online amendments to pre-completed tax returns.
France (F)

On the 5th measurement, the value of both indicators was almost equal to that of the EU(18). In this measurement, there is a significant increase noticeable compared to both EU(18) and EU(28).

<table>
<thead>
<tr>
<th>Overall results</th>
<th>France - Online Sophistication</th>
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<tbody>
<tr>
<td>2001 2002 2003 2004 2005 2006</td>
<td></td>
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<tr>
<td>France</td>
<td>EU(18)</td>
</tr>
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</table>

| France - Fully Available Online |
| 2001 2002 2003 2004 2005 2006 |
| France | EU(18) | EU(28) |

**Innovative e-service developments**

Now in its second year, the system for the online declaration of tax in France has been expanded and improved.

As with the paper version, the electronic tax declaration form will be completed by the tax authorities before being sent out, but taxpayers will be able to modify or add information online. An additional advantage of the online declaration is that no supporting documents are needed and you are told immediately how much tax you will have to pay. This service will go live at the beginning of May.

The website is accessible at http://www.impots.gouv.fr

**Initiatives for the future**

Most of the current forms nowadays can be accessed and downloaded by the users. Filling out the form and sending it back to the correct administration however in most cases still follows the traditional path.

The project of the forms server, started at the end of 2005 under the colours of the DGME in France, will put at the disposal of all public services a mutual system, allowing systematic digitalization of administrative forms, as well as dematerialization of the corresponding procedures. The electronic signature can be added to complete the form.

The whole project will realise a bigger transparency for the user, combined with an increased simplification of the administrative steps online.

The forms could be offered both on the national portal (http://www.service-public.fr) and the site of the ministries concerned.

**eAuthentication**

The electronic health insurance ID card, Vitale, was introduced in 1998, and is now being updated. The new updated cards will be rolled out in 2006.

Separately, plans for an eID card, called CNIE (Carte Nationale d’Identité Electronique), were first announced in 2003, as part of the INES programme (Identification Nationale Electronique Sécurisée). The rollout phase is expected to begin in 2006.

A list of priority forms has been created in 2005. The platform will be operational in September 2006, to allow a progressive integration of the forms.
Germany (D)

Both for “online sophistication” and “fully available online”, an increase is noticeable. The complexity in government structure in Germany prohibits a strong increase for online sophistication as measured at this moment.

Both for “online sophistication” and “fully available online”, an increase is noticeable.

The complexity in government structure in Germany prohibits a strong increase for online sophistication as measured at this moment.

**Innovative e-service developments**

BundOnline 2005, the e-government programme of the German federal administration, was in 2005 in its final year.

Considered a success by federal authorities, the initiative has delivered impressive results: over 340 services were already available online in April 2005. Take-up is also increasing significantly, the government said, with over 14 million accesses to the websites and services of 900 public bodies through the federal portal http://www.bund.de/ in the second half of 2004.

As a consequence, the Cabinet of Ministers decided on 9 March to guarantee the funding of key e-government infrastructure services and components developed under BundOnline.

**eAuthentication**

Germany has adopted the European Directive on Electronic Signatures in the year 2003 through the German Electronic Signature Act.

In 2004, the Ministry of Internal Affairs announced a new generation of identity cards, which would also be based on smart cards and hold biometric data of the cardholder.

In 2005, the German Federal Government started an initiative called “E-Card Strategy”, which aims to force a consistent usage of smart cards within eGovernment, eBusiness and legal relations.

**Initiatives for the future**

Another eID related initiative is the German health card project, which should result in a nationwide rollout by 2007.

This health card should be the key element in German health applications.

The card holds given name, last name, date of birth, personal identification number of the cardholder, sex, country, city and city code. Storing of further data is possible, e.g. a set of emergency data can also be stored on the card.
A smaller increase in online sophistication is noticed for Greece, as compared to the EU(28).

**Innovative e-service developments**

The Citizen Service Centres (KEP in Greek) is an initiative of the Hellenic Ministry of the Interior, Public Administration and Decentralization. The Citizen Service Centre (http://www.kep.gov.gr/) is the official site of administrative one-stop shops, where citizens can have access to public service information and to a number of standardised administrative procedures.

The service is complemented by a 24-hour administrative information call centre (four-digit 1564 telephone service), and by a 'Telephone Application System' (1502) where citizens can request almost 60 different certificates.

**eAuthentication**

There is currently no central e-identification infrastructure for e-government in Greece. In particular, no plans for e-ID cards have been issued.

Presidential Decree 150/2001 of 25 June 2001 implements the European Directive of 13 December 1999 on a Community framework for electronic signatures. It defines electronic signatures and advanced electronic signatures. It also deals with the legal consequences of electronic signatures, liability of suppliers of certification, obligation to protect personal information, terms in effect for recognised certificates and suppliers, assurance of the liability of the creation of a signature and recommendations for the verification of the signature.

**Initiatives for the future**

In March 2005, a 3-year programme “Politeia 2005–2007” was launched for the ‘re-establishment of Public Administration’. The objectives of the programme are to better serve all citizens by focusing on their real needs, increasing transparency in public administration, implementing eGovernment in all administrative levels (central and regional administration, municipalities), restructuring agencies and processes, protecting citizen’s privacy and consolidating the Rule of Law.
Hungary (HU)

A very strong increase for Hungary on both indicators puts their value above that of the EU(10) and EU(28).

### Innovative e-service developments
The Act on the registration and publicity of businesses and the Business Court proceedings allows procedures with the Business Court to be conducted electronically from September 2005.

A number of business registration and related services will gradually be made available through the e-services platform of the Governmental Portal (http://www.magyarorszag.hu/ugyfelkapu/), based on the National Business Registration and Business Information System of the Ministry of Justice.

### eAuthentication
Hungary has adopted the European Directive on Electronic Signatures as a legal basis for using electronic signatures in the year 2001 through the Hungarian Act on Electronic Signatures.

In Hungary, no central ID infrastructure is in place at this moment. It however has a common identification/authentication framework in place. This multi-level security framework provides for different applications appropriate mechanisms for identification and authentication.

The Hungarian Administrative Procedure Act and its executive orders define the identification and authentication processes for different services of the public administration. Two different cases can be identified: authentication by password, or authentication by digital certificate.

### Initiatives for the future
The Hungarian Act on public administration procedures which came into effect in autumn 2005, allowed the local authorities to create e-services.

The town of Szeged, in the south of Hungary was the first to offer user identification and log in to the Governmental Portal (http://www.magyarorszag.hu/). According to schedule, the system is now in operation as of 10 April 2006, which means that the citizens of Szeged have the possibility to manage their official affairs—from changing their identity cards to rectifying licences—online from home.

To use the system it is necessary to issue an electronic personal identification from the competent public administration office.

Presently, the affairs manageable through the client gate in an electronic way lie in the following fields:
- Social affairs, family protection
- Vehicle administration
- Personal data and address register
- Enterprise license
- Registration of birth, marriage and death
- Driving license
- Identity card
- Passport
- Population registry
- Building authorities (submission of complaints)
Another good example of a successful online public service is the tax reporting system (e-Tax) which has been in use for several years and is now used by 91% of taxpayers.

**eAuthentication**


**Initiatives for the future**

Iceland scores well concerning ICT connections (like the amount of computers at home or access to the internet). On the service delivery side, a stagnation is noticeable.

It is the intention of the Government of Iceland to keep up the high records and continue to be among the most successful countries regarding the Information Society and e-Government. The policy of the Government of Iceland on the Information Society for 2004-2007, “Resources to Serve Everyone”, is highly ambitious and hale to keep Iceland at the forefront in the near future.

The individual, his or her opportunities and welfare in society, are the guiding principles of the policy. The future vision consists of four key factors:

**Opportunity**

Individuals and companies shall be provided with increased opportunities for exchanging and seeking knowledge, communicating, and conducting business wherever and whenever they wish.

**Responsibility**

Leaders in every area of society must shoulder responsibility and cooperate so that information technology will be used for the benefit of citizens and so that diverse individuals will be able to benefit from it.

**Security**

Citizens and companies shall be guaranteed access to a secure, reliable, high-speed network at competitive prices. The security of information and the protection of personal privacy shall be guiding principles in developing the information society.

**Quality of Life**

Added quality of life and a richer society shall be supported by exploiting the potential of information technology in education, culture and health, along with other community sectors.

The most important project and the biggest project of the policy is the development of an information and service portal, “Island.is”. The portal will play a key role in providing information and services to individuals and companies which communicate with government organizations. The objective is to facilitate access to public services in such a way that the user will not need to know in advance which organization provides the service he or she requires.

Many other projects will be carried out as part of the portal. They concern development of new sophisticated services and also further development of many of the services measured in this survey. The government has also ongoing projects which aim at strengthening the back office systems and preparing for better internal communication between public institutions at all levels.
Ireland (IRL)

Online development continues to be stagnated.

Innovative e-service developments
In February 2005, an SMS enquiry service was launched, allowing citizens to claim tax credits and request a number of tax forms and information leaflets by sending text messages from their mobile phones. All they have to do is send a message to a dedicated number—51829—including their personal identification (i.e. their ‘Personal and Public Service Number’) and a relevant service code.

The Office of the Revenue Commissioners (http://www.revenue.ie/), Ireland’s tax collection agency, is now receiving as many enquiries by text message (SMS) as by telephone.

eAuthentication
The Irish Government’s electronic identity management structure is currently built around two core concepts: the Personal Public Service Number (PPSN) and the Public Services Broker (PSB).

PPSN is a unique identifier which is now mandatory assigned to every Irish child at birth. The PSB function is an electronic broker/helper/assistant for any new electronic public service. It provides an interface between beneficiary and public service (in person, over the phone or through a self-service electronic channel).

An enhanced version of the Irish eGovernment portal reachservices went live in May 2005, making use of the first phase of the Public Services Broker (PSB) system.

The rollout of a Public Service Card (PSC), using the PPSN is also planned, which will bundle the functions of several cards, like a medical card, social services card, etc.

Initiatives for the future
Work is ongoing on the production of the third Irish Government Action Plan on the Information Society. This Action Plan will build on the experiences of the first two Action Plans, taking account of international developments and the pace of technological change.

It is envisaged that the central focus of the third Action Plan will be the citizen and that the Plan will include provisions dealing with governance, benefits measurement, intellectual property management and other important cross-cutting issues.

It is also expected that the new Action Plan will deal with the larger issues regarding the joining up of Government services and will address cultural and organisational issues as well as improved records management.
**Italy (I)**

**A stronger increase for both overall indicators puts Italy above the average of EU(28) and EU(18).**

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**Innovative e-service developments**

The crime reporting service Denuncia vi@ Web (‘Report a crime vi@ the web’) enables the public to report lost or stolen property online. It is currently on trial in a number of areas, and will be extended gradually across the entire country. The aim of the service is to simplify procedures for filing crime reports, and to ensure a policing service that best meets citizens’ needs. The website is accessible at https://www.denunceviaweb.poliziadi stato.it/

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**eAuthentication**

The Italian Electronic Identity Card (“Carta d’identità elettronica” or CIE) will fulfill three main tasks: it will not only replace the paper-based identity card, but will also be an international travelling document, and enable authentication or identification in eGovernment applications.

The final phase of the rollout of CIE started in 2005, and the goal is to provide the card to every Italian citizen older than 15 years between 2005 and 2009.

The Italian Electronic Identity Card can only be used by Italians living in Italy. The experimental phase for the CIE for Italians living abroad is in progress and can already be used for some services in the application range of eVoting.

The PSE (“Permission for Electronic Accomodation”) is a card with similar characteristics as the CIE, and will be issued after the experimental phase of the project to non-Italians.

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**Overall results**

![Graph showing overall results](https://www.denunceviaweb.poliziadistato.it/)

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**Italy - Fully Available Online**

![Graph showing Italy - Fully Available Online](https://www.denunceviaweb.poliziadistato.it/)
The six digital programmes are aimed at harnessing the power of new information and communication technologies in key areas of society, including:

- Schools: innovation in teaching, new digital content
- Healthcare: electronic medical results, tele-monitoring and tele-consultation
- Justice and Security: reducing procedural time and cost, facilitating access to documents, etc.
- Infomobility and Logistics: information sharing
- Tourism: expanding the 'italia.it' tourism portal
- Culture: digitalisation of Italy's cultural heritage

**Initiatives for the future**

The Italian Minister for Innovation and Technology has announced plans for the completion of the ‘digital reform’ begun in 2001.

The government’s action plan focuses on eight key priorities:

- Development of an innovation culture
- Transfer from conventional format to digital content
- Emphasis on eGovernment
- Six big digital programmes (see below)
- Italian enterprise
- Treating the South as an innovation engine
- Italian ICT
- Higher international profile for Italy
Latvia (LV)

The increase for both indicators for Latvia is almost similar to the increase for EU(28). However, the current values for “online sophistication” and “fully available online” put Latvia still below EU(10).

Innovative e-service developments
An eGovernment portal (http://www.eparvalde.lv) provides information to citizens.

In March 2006, the Ministry of Foreign Affairs launched a new internet portal (http://www.latviesi.com) for Latvian citizens living or working abroad. The portal contains information about Latvian organisations and communities abroad.

eAuthentication
The Latvian government started a project to issue electronic ID cards, but up until now, no cards have been issued yet.

An infrastructure for electronic signatures is not yet in place.
Lithuania (LT)

An increase in online sophistication, almost similar to the increase for EU(28) puts Lithuania on a level, almost comparable to that of EU(10).

### Innovative e-service developments

For Lithuania, an electronic gateway to the government exists (http://www.govonline.lt/). It serves as a portal to redirect citizens and businesses to the appropriate website of public administrations.

### eAuthentication

The Lithuanian government did not issue any electronic ID cards yet. The government has focussed more on the elaboration of an eGovernment infrastructure in the back-office.

It is expected that in the future, the Lithuanian government will refocus on the development of an electronic identity card.

The electronic signature infrastructure has been used to support the exchange of electronic documents in the public sector.

### Initiatives for the future

Passport applications are handled by local police branches. The Ministry of the Interior, together with the Migration Department, the Residents’ Register Service, the Personalization of Identity Documents Centre and the Klaipeda municipality, is implementing a project on “The transfer of the service for personal documents (passport) to an electronic environment” (feasibility study), which is supported by EU Structural funds and will last until the 4th quarter of 2006.

The website is accessible via the following link: http://www.migracija.lt/
Even though the value of “online sophistication” increases compared to the previous measurement, Luxembourg still performs below the EU(28) score.

Innovative e-service developments
CEDIES (Centre de Documentation et d’Information sur l’Enseignement Supérieur) has put in place for a few years an online solution to request financial help for highschool education or for an encouragement fee. The inserted data is transmitted to the backoffice of CEDIES.

To guarantee the authenticity of the requestor, the system generates a letter with a reference, which needs to be signed and sent through the post, including the justifying items.

The generated letter has resolved the issue on absence of authenticity proof. By enabling Luxtrust (PKI), the authenticity proof can be simplified (electronic signature).

On the other hand, similar to declaration of taxes, no solution is in place to electronically submit the justifying items.

The application of CEDIES allows follow-up of by the requestor.

The website is accessible through the following link:

http://www.cedies.public.lu/_FINANCEMENT/index.html

eAuthentication
The Luxembourg public administration has an ambitious eGovernment strategy in place, consisting mainly of the eLuxembourg Action Plan. Details of this strategy can be found on http://www.eluxembourg.lu.

Citizens, as well as legal persons established in Luxembourg, are issued a unique identifier, and citizens also have a traditional ID card. No electronic IDM projects have reached a significant stage so far.

Initiatives for the future
Currently, in Luxembourg, two projects are ongoing that aim to propose a transactional procedure. One is situated in the domain of “public procurement”, the other one on the service “Registration of a new company”.

Actions are also ongoing concerning the service of “Birth and marriage certificates”, where downloadable forms will become available to the citizens on the websites of all municipalities which are responsible in the matter.
Malta (MT)

A very strong increase on both indicators puts Malta largely above EU(10) and EU(28).

Innovative e-service developments

The online Renewal of Licences is a web application that allows Maltese citizens to renew their vehicle road licences online, to pay any outstanding contraventions, to upgrade the road license to entrance to the capital city and to check their next Vehicle Roadworthiness Test (VRT) from any place with an Internet connection.

Furthermore, the web application is integrated with the Local Enforcement System which allows traffic wardens located in any street in Malta to register and manage traffic contraventions of various kinds. The application allows the VRT stations to submit the VRT details and update the central database with the updated VRT results. Insurance Agencies and Brokers also have the facility to update the ADT database with insurance policy details and to renew and issue the road license document from their office in real time.

Users of the service can log on to the website http://www.licenzij-vetturi.gov.mt.

The Maltese Government is planning more public-private partnerships of this sort and will develop other online services, such as the renewal of driving licences and the registration of new vehicles.

The eVERA system may be accessed online via the ADT’s website: http://www.maltatransport.com
eAuthentication
Additional to the traditional ID cards provided to its citizens, the Maltese government also issues electronic identities (eIDs) to its citizens in the form of certificates, which can be used for a variety of eGovernment services.

2004 saw the launch of Malta’s electronic identity, based on an internationally accepted four-tier model of identity authentication assurance levels for e-Government transactions. Each assurance level describes the degree of certainty that the identity credential presented by the user actually refers to his/her real-world identity. These levels may be described as follows:

- Level 0: No Authentication
- Level 1: Restricted Authentication (Username and Password + PIN)
- Level 2: Confidential Authentication (Digital Certificate)
- Level 3: Maximum Authentication (Qualified Digital Certificate)

Current applications on eID related services include VAT related services, tax related services, company-related services, social services, online passport requesting or online ePayment Gateway.

The Maltese government was also one of the first to begin deploying m-government or mobile government services.

Initiatives for the future
The e-ID is part of the horizontal infrastructure supporting all of e-Government. It complements the electronic payment gateway in providing a layer for the development of e-Services to both Citizens and Business. The Client’s contact is through the e-Government Services Portal (http://www.mygov.mt), which is being launched in the coming weeks.

The four key objectives of the Government of Malta to deploy e-ID and the supporting www.mygov.mt Portal are:

- To deliver information and services to all organizations, citizens and businesses;
- To reduce the Government of Malta’s operating costs in delivering information and services;
- To provide the Government of Malta’s information and services any time anywhere;
- To leverage existing IT investments for the Government of Malta.

The project’s main focus is directed towards the provision of an e-inclusive e-Government framework, which encompasses:

- Citizen and Business (or Organisation)-Centric e-Services;
- Capability to cater for multiple Citizen and Organization Profiles;
- One-Time Registration, Unique Portal for all e-Services and a Single-Sign-On secure authentication through an electronic identity;
- Framework that will provide e-Services Registration, Approval and Access which demands identity credentials depending on the degree of confidence required;
- Framework that will enable interoperability between distinct Government functions / departments.
Netherlands (NL)

A strong increase (especially for the indicator “fully available online”) results for the Netherlands in a score, almost comparable to that of EU(18). This puts the Netherlands on a score of two-way interaction.

Innovative e-service developments
The Netherlands introduced the DigiD (national authentication mechanism).

As a consequence, unemployed citizens can, by means of DigiD, register as jobseeker and apply for unemployment benefits.

The website is accessible through the following link: https://intake.werkl.nl/eintake/index.html

The Dutch Government also created a sophisticated system to measure and monitor the development of eGovernment services, accessible through the following link: http://www.advies.overheid.nl/

eAuthentication
In 2003, DigiD development started in the Netherlands. This system allows the electronic identification of persons on the internet.

On a separate level, the Dutch government has taken the first steps of introducing a so-called Citizen Service Number (CSN), which aims to assign a unique identity number to each natural person (equalling the current social security number or “sofi-number”). Introduction was set for January 2006. In a later phase, a Companies and Institutions Number (CIN) will be assigned to each legal person (based on the existing Register of Companies). Rollout of CIN will follow in a later stage.
Within the European Research Framework Programme, some FP6 projects specifically relating to e-government are identified in which the Netherlands is directly participating. One of these projects is called SAFIR (Speech Automatic Friendly Interface Research). The project started in 2004, and will end in 2008.

**Initiatives for the future**

The central government and local authorities in the Netherlands decided in April 2006 to invest €55.5 million in improving eGovernment services targeted at citizens and businesses.

The planned investment will help to reduce the administrative burden for citizens and enterprises, eOverheid, the Netherlands' eGovernment news service reported. eGovernment services need to be made more accessible and more user-friendly.

Both local and national authorities prioritised the realisation of certain basic provisions, such as DigiD, which can be used by citizens to communicate electronically with and use the services of various Dutch ministries and government authorities, eForms, citizen service numbers, smart identity cards, etc. Special implementation teams (I-teams) will take care of the complex and time-consuming ICT operations required to put the new systems in place.

Within the European Research Framework Programme, some FP6 projects specifically relating to e-government are identified in which the Netherlands is directly participating. One of these projects is called SAFIR (Speech Automatic Friendly Interface Research). The project started in 2004, and will end in 2008.

This project will offer the possibility to citizens to request and fill eGovernment forms and transactions, simply by speaking to his TV or GSM.

More information can be found at the following website: http://www.safir-fp6.org/
Public Sector the way we see it

Norway (NOR)

An strong increase (certainly of the indicator “fully available online”) puts both indicators largely above the EU(28) and EU(18) scores.

Innovative e-service developments

Through the website of the police in Norway (http://www.politi.no/), you can make a declaration to the police.

This declaration is in the form a pdf document, which can be filled out, printed and sent to the police.

One of the targets of the Norwegian eGovernment strategy “eNorway 2009” was the creation by end 2005 of a personalized and secure version of the one stop services portal http://norge.no/

Initiatives for the future

eNorway 2009, the Norwegian new eGovernment strategy, was launched 27 June 2005.

The main targets set in the new strategy are as follows:

- A personalized and secure version of the one stop services portal Norge will be available to all citizens by end 2005 (in Section 4 “Innovative e-service developments”).
- Before the end of 2007, all communication between the authorities and the citizens will be electronic for those who wish.
- By 2009, all relevant public services to the citizens will be available on the Internet.
- Before the end of 2009, all information that is not too sensitive will be communicated electronically within the public sector. For the Ministries, the deadline is 2007.
- All reports from businesses to the public sector will be capable of being made electronically as of 2008.
- Access to public data will be made easier by the end of 2008, with free access as the basic principle.
- Computer systems in the public sector will be based on open standards. “Proprietary formats will no longer be acceptable in communication between citizens and government”, declared Minister of Modernisation Morten Andreas Meyer.
- Before the end of 2009, all authorities will have made arrangements for enabling citizens to retrieve their own personal data in a simple and secure way.
Poland (PL)

A stronger increase, compared to EU(10) and EU(28) is noticed. Score for both indicators for Poland however remain below the EU(10) and EU(28) values.

Innovative e-service developments
An eGovernment portal (http://www.egov.pl/) provides access to public administration information, and is intended for citizens and businesses.

An online system allowing Polish citizens to sign on for unemployment benefit and register for government employment services was accepted by the State Office for Employment in February 2006.

The new system should simplify the work of desk officers and also reduce unemployment, since inscription will now take only five minutes.

eAuthentication
In September 2001, the Polish Parliament approved the Law on the electronic signature, and its regulation was put into practise in August 2002.

Poland currently does not have any electronic ID card or electronic identities in the form of digital certificates and it seems like it is not planning to do so in the near future.

Initiatives for the future
In April 2005, the Polish Ministry of Finance unveiled plans for the introduction of e-tax filing services. Priority will be given to corporate taxpayers, which will be able to file tax returns and pay taxes online as of 2006.

The heart of the proposed system will be a long awaited online tax declaration application for businesses. The planned implementation schedule presented by the Ministry of Finance is as follows:
- Q3 of 2006: electronic corporate income tax declaration; automatic acknowledgement of delivery of declaration;
- Q4 of 2006: electronic VAT and excise tax declarations;
- Q1 of 2007: electronic application forms for VAT number, online browsing of declarations sent, use of general electronic applications;
- Q2 of 2007: full electronic communications with corporate taxpayers.

The full implementation of e-tax services for citizens is planned in 2012 only.

The Finance Ministry considers its e-tax (‘e-podatki’) project as one of the strategic steps in order to raise the quality of state tax services for businesses and citizens. So far only limited experiments of e-tax services have been made in Poland.
Online Availability of Public Services: How Is Europe Progressing?

Portugal (P)

Compared to the 5th measurement, Portugal has done an overtaking manoeuvre. This puts both indicators just above EU(18).

Innovative e-service developments
The Portuguese government has adopted a package of measures aimed at facilitating and encouraging electronic submission of personal income statements or IRS ('Imposto sobre o rendimento das pessoas singulares'). New measures include an e-mail alert service for early detection of errors.

The system will allow citizens to correct possible mistakes in their declarations and avoid reimbursement delays. It applies to so-called 'Modelo 3' income tax declarations of IRS.

In addition, as from 1 January 2006, all IRC ('Imposto sobre o rendimento das pessoas colectivas') and accountant declarations for legal entities will need to be submitted electronically. Paper declarations will no longer be accepted, according to the ministry.

More information can be found at the portal http://www.e-financas.gov.pt.

eAuthentication
In early 2004, a new Citizen's Portal ('Portal do Cidadão', http://www.portaldocidadao.pt/PORTAL/pt) was launched, which replaced the earlier INFOCID Portal. This portal was for businesses and citizens.

In April 2005 the Portuguese government initiated the citizen card project (Cartão do Cidadão—http://www.cartaodocidadao.pt/). The card is currently undergoing proof of concept testing, and the first results were presented the beginning of March 2006.

Initiatives for the future
The new Portuguese Electronic Passport (PEP) fulfils the modernity patterns, both technical and artistic.

It represents in Portugal the beginning of a new generation of electronic ID documents, respecting the most rigorous security patterns, in terms of the materials used, paper and ink, and also in terms of security graphic processing of the document.

More information can be found at http://www.pep.pt/
Spain (E)

The increase for the indicator “online sophistication” for Spain is comparable to that of EU(18). The Spanish score for “fully available online” remains above EU(28) and EU(18).

### Innovative e-service developments

Registration of a new company in Spain improved significantly with the introduction of the New Enterprise CIRCE project.

The portal is accessible at the following link: [http://www.circe.es/portal/](http://www.circe.es/portal/)

### eAuthentication

2001 can be considered as the year in which Spain first set out the general principles of its eGovernment policies. The Spanish Certification Authority (CERtificación ESpañola—CERES—[http://www.cert.fnmt.es/](http://www.cert.fnmt.es/)) was established as a part of the National Mint. CERES’ main purpose is the creation and management of digital identities to citizens, in order to allow them to authenticate themselves when communicating with public institutions.

The same year, citizen service portal Administracion.es, which provides an overview of and access to a wide variety electronic services offered by the Spanish government, was launched. Certain services require the use of PKI through a certificate issued by CERES.

A second portal, Ciudadano.es, focusing specifically on citizen services, will go live in 2006.

The Spanish Government’s most recent eGovernment strategy is the so-called “Plan Conecta”, the first version of which was presented in September 2004. A key component of this plan is the introduction of an electronic national identity card by the name of DNI Electronico, which will gradually replace the traditional Spanish identity card. The Spanish eID will contain two certificates: one for eAuthentication, and one for eSignatures. Roll-out of the new card has started in March 2006.
Initiatives for the future

In March 2006, the Spanish Ministry for Public Administration announced the creation of the Advisory Council for Public Administration (Consejo Asesor de Administración Pública). The objectives of this new body are to assess the potential role of new information and communication technologies in transforming public administration in Spain, to identify the major gaps and obstacles, and to assist in developing an integrated strategy for future development.

As Jordi Sevilla, Minister for Public Administration, argued at the beginning of March, Spain is “at a crossroads with regard to the development of eAdministration” and “needs a new model, different from the one developed so far”—a model in which the coordination between different administrative bodies is improved so as to avoid the developing pattern of emerging ‘islands’ of isolated services.

The Advisory Council—which should meet at least once a month, and includes experts from the public sector, industry and civil society—is a first step in this new direction. Other measures in the pipeline include: putting in place a single electronic registry; enabling electronic payments; providing for secure electronic data transfer; and making more than 800 administrative forms available online.

In his speech to the Senate, Jordi Sevilla also unveiled some of the key points of the future Law on Electronic Administration, whose founding principle is the recognition of the ‘right’ of the citizen to access public services electronically.
Switzerland (CH)

There is a slight improvement on both indicators, but no overtaking manoeuvre can be noticed.

Innovative e-service developments
The federal government wants to reduce the administrative burden imposed on Swiss businesses. One of the measures it is using to do this is the new Internet portal for small and medium-sized enterprises (SME) that can be accessed at www.kmu.admin.ch. The site gives detailed information on starting up and managing a business, combined with the possibility of registering a new business online. The entrepreneur is being guided through the different steps of the registration and has access to all necessary government services through one central portal.

eAuthentication
After the Swiss parliament approved the relevant legal foundations, a new social insurance number will be established in 2008. This 13-digit “non-speaking” number will replace the currently used identification number of the system of the “old age” insurance, which no longer meets the criteria of data protection. All individuals of the resident population will be identifiable through this new number, which will be used by a number of official registers. This will be the basis for the harmonisation of some 2800 federal, cantonal and municipal registers. This will also allow a simplification of statistical process, as for the population census planned for 2010. More information is to be found at: http://www.bfs.admin.ch/bfs/portal/fr/index/news/00/00.html

Initiatives for the future
The approach towards implementation of eGovernment in Switzerland is largely decentralised, reflecting the federal political organisation. Recognising the need for a common strategic approach within this context, the federal government has decided to develop a national eGovernment-Strategy, in close collaboration with the cantons and with a large consultation of municipalities and other stakeholders. The strategy is due to be presented to the government by the end of 2006. More information: http://www.isb.admin.ch/internet/egovernment
Slovakia (SK)

An increase can be noticed, comparable to that of the EU(28) indicator. Both Slovakian indicators however remain below EU(10) as well as EU(28).

**Innovative e-service developments**

A number of new e-government services have been launched in Slovakia since early 2005.

As one of those services, citizens and businesses now have the possibility to submit all tax forms to the Tax Directorate ([http://www.drsr.sk/wps/portal](http://www.drsr.sk/wps/portal)) electronically without having to use a certified electronic signature. The new system uses secured communication with specifically-issues PIN codes.

**eAuthentication**

Slovakia has already transposed the European Directive on Electronic Signatures by the law on E-Signatures, which entered into force in May 2002.

In Slovakia, there are two systems for issuing and holding unique personal identifiers. Up to now, Slovakia still uses unique identifiers for citizens, which are used within all sectors of applications.

For the future, a new system has been planned, which will create new personal identifiers (so called BIFO) using cryptographic algorithms. This new identifier is no more unique for all sectors of applications, but will be state sector oriented.

http://www.drsr.sk/wps/portal
Slovenia (SE)

Compared to the previous 5th measurement, Slovenia reports a bigger increase on both indicators. This results in an online sophistication for Slovenia above two-way authentication.

Innovative e-service developments
The portal e-VEM (http://evem.gov.si/sp/)—Slovenia’s online one stop shop for business entities—has been in operation since 1 July 2005.

The basic purpose of the e-VEM project is to provide a suitable information support for the future entrepreneur and enable him/her to start with business operations in the shortest time possible.

eAuthentication
Slovenia has adopted the EU Directive on electronic signatures by the Act on Electronic Commerce and Electronic Signatures (ZEPEP) in the year 2000. In 2004, a further act amending on Electronic Commerce and Electronic Signature was set into force in order to create a legal basis for an upcoming eID card project.

Every Slovenian citizen becomes registered with the Slovenian Central Register of Population (CRP) and receives a unique Personal Registration Number (PRN; Slovenian abbreviation: EMSO). Other individuals who have no PRN but have to exercise some rights or duties in Slovenia also become registered with the CRP.

Slovenia has started to develop eID cards in February 2003. The eID card is not obligatory. The concept is a combination of a signature card and a conventional, visual ID card.

Individuals, registered at the CRP, can request a Slovenian eID card. The governmental certification authority SIGEN-CA issues qualified certificates for the individual.

Initiatives for the future
In April 2006, the Slovenian government adopted a new ‘eAdministration Strategy’ which presents a strategic vision for the development of eAdministration in Slovenia and outlines the main actions to be taken in this area in the period 2006-2010.

The eAdministration Strategy provides an overview of the situation to date in Slovenia with regard to the development of eGovernment solutions, and presents strategic orientations for the coming four-year period. A number of specific goals are set for the 2010 target date. The Strategy also outlines the necessary conditions that need to be in place if these goals are to be met.

The main emphasis of the Strategy is on consumer satisfaction, the rationalisation of public administration and the delivery of up-to-date eServices for citizens and businesses. The aim is to achieve a better quality of life and improved relations with public sector departments and agencies.
Sweden (S)

Online sophistication is showing smaller growth, and seems to be leveling off. Both indicators for Sweden remain largely above EU(28) and EU(18) scores.

Innovative e-service developments
More and more Swedish citizens use the electronic services offered by the National Tax Board (http://www.skatteverket.se/) to file their income tax returns year over year.

Most Swedish taxpayers receive a pre-filled and pre-calculated version of their tax return, which they can file online using a ‘soft electronic ID’ (PIN and password provided by the Tax Board) or simply confirm by using the Tax Board’s telephone service or via SMS.

eAuthentication

In 1998, the SIS (Swedish Standards Institute) approved standards regarding electronic ID as proposed by the SEIS (Secured Electronic Information in Society) association.

Electronic ID Cards based on these standards are sold by the Swedish Post acting as a Certification Authority (the Post’s CA business was taken over by telecom company TeliaSonera in September 2003).

Following a framework agreement signed between the Swedish Agency for Public Management and digital certificates suppliers, software-based electronic IDs (in particular the BankID developed by the largest Swedish banks) can also be used for certain e-government services.

For the future, the government has plans to introduce an “official” electronic ID card containing biometric identifiers.
Initiatives for the future
Interactive service
In the next years, one of the important areas that the Swedish Administrative Development Agency shall work with is to create good conditions for the public sector to develop interactive services to citizens and companies.

This will be done by stressing the usability of the services. Among others the guideline for contents and usability of public sector websites (Vägledningen 24-timmarswebben 2.0) that the Swedish Agency for Public Management developed will be updated.

A critical condition to increase the possibilities to improve the development of interactive services is that a common technical infrastructure is available in the public sector. In collaboration with the local authorities technical standards will be developed that shall be used in the whole public sector.

To be able to use interactive services it is important to secure the services so that misuse of the services will not be possible. The government has suggested a three-year programme to promote the use of eIdentification in the public sector. The programme shall finance parts of the investments in eIdentification solutions that small agencies and local authorities need to do to develop new interactive services.

eCommerce
The Swedish Administrative Development Agency has written an action program to increase the use of eCommerce in the public sector. An important area is to implement the common used standards for eInvoice in public sector. The work to inform the public sector of the advantages with eCommerce are also important to increase the use of eCommerce, the knowledge today of eCommerce is low. To help the public sector to use eCommerce, guidelines for implementing eCommerce will be developed. The work is done in collaboration with the private sector.

eProcurement
There is a workgroup led by the Swedish Administrative Development Agency that shall work to improve the use of eProcurement in public sector. The group shall inform about the new EU-directives for procurement, develop demands and requirements for technical and security solutions for the electronic procurements and evaluate the consequences the improved use of eProcurement will have for the public sector.

Strategy for ICT in the healthcare sector
In spring 2006 the Ministry of Health and Social Affairs and the healthcare organizations in Sweden launched a national strategy for ICT in the healthcare sector. The main areas that the strategy pinpoints were:
- Harmonized legislation to increased ICT-use
- Create a common information structure
- Create a common technical infrastructure
- Ease the information flow between organizations
- Create easily accessible information and services to the citizens

R&D programme for the ICT and telecom sector
The Swedish Governmental Agency for Innovation Systems has an assignment to develop an R&D programme for the ICT and telecom sector. The programme shall strengthen the Swedish ICT and telecom sector and strengthen the Swedish participation in the work with the EU eMobility technical platform. The proposed actions in the programme shall be financed by the public and private sector together.
United Kingdom (UK)

There is a similar increase for both indicators, compared to the EU(18) scores. The values remain well above EU(28) and EU(18).

Innovative e-service developments

The Planning Portal (http://www.planningportal.gov.uk/) is accessible for general public, professionals and government users. It allows users to apply for a building permission.

Another innovative e-service development in the United Kingdom is the eAdmissions project: Jointly sponsored by the Office of the Deputy Prime Minister (ODPM) and the Department for Education and Skills (DfES), the eAdmissions project aims to support local authorities (LAs) in putting their school admissions process online.

Initial take-up of these services has been high and a recent nationwide survey conducted by the project confirms the positive reaction of parents and carers.

By September 2006, 150 LAs in England will be required to offer an online school admissions system. The project, which was launched in February 2004, has so far seen 58 authorities develop an online facility. The remainder expect to be online in time to meet the September deadline.

eAuthentication

The most generic central UK identification platform is the Government Gateway (http://www.gateway.gov.uk) On this portal, users may choose to apply for either a userID/password, or a digital certificate. Once these credentials received, they can enrol for the desired eGovernment services (sometimes after receiving an activation PIN code).

The UK Government also provides a general eGovernment information portal through http://www.direct.gov.uk.

The UK Government has been planning to introduce a biometry based eID card, but currently does not have a mandatory eID programme for the general public.

Initiatives for the future

In November 2005, Transformational Government set out the UK Government’s vision for a long-term transformation of public services to provide efficient, effective services that citizens want. The scale of the change, as set out in the strategy, will not be completed overnight.

A Timetable for Change issued by the Cabinet Office defines a broad timing for three phases of work:
- phase 1: November 2005 to July 2007
- phase 2: August 2007 to 2011
- phase 3: beyond 2011

8 Annex: Definitions of the 20 Public Services

1. Income taxes
Definition of the public service
Income taxes: declaration, notification of assessment

Research definition

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 0</td>
<td>The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4.</td>
</tr>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to declare income taxes of an employee is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to declare income taxes of an employee in a non electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to declare income taxes of an employee.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the declaration of income taxes of an employee via the website. The complete income tax declaration and notification of assessment can be treated via the website. No other formal procedure is necessary for the applicant via “paperwork”.</td>
</tr>
</tbody>
</table>
2. Job search

Definition of the public service
Job search services by labour offices

Research definition
Standard procedure to obtain job offerings as organised by official labour offices, no private market initiatives.

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4. |
| Stage 1 | The information necessary to start the procedure to obtain job offerings is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to receive job offerings in a non-electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to consult databases with job offerings. |

Although for this service the tender of the European Commission predefined a maximal stage 3, we took into account stage 4. Following the structure of the stages as defined in the same document by the European Commission and by analogy of the developments in the field of e-commerce, one can define a stage 4 where the common public service is fully electronically supplied to the applicant. In this case we can define stage 4 as:

| Stage 4 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic supply of pre-selected jobs related to the given profile of the job searcher. |
3. Social security benefits

Definition of the public service

Social security benefits:

- Unemployment benefits
- Child allowances
- Medical costs (reimbursement or direct settlement)
- Student grants

Research definition

Standard procedure to obtain social security benefits:

- Unemployment benefit: standard procedure to obtain replacement income in case of unemployment
- Child allowance: standard procedure to obtain child allowance
- Medical costs: standard procedure to obtain reimbursement of costs covered by obligatory medical insurance
- Student grants: standard procedure to obtain student grants for higher education

In the following table, only the definition of the public service “Unemployment benefit” is fully developed, the other three have the same structure.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>Stage 0</td>
<td>The service provider or the administrative responsible level does not have a publicly accessible website or this website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4.</td>
</tr>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to obtain unemployment benefits is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to obtain unemployment benefits in a non-electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to obtain unemployment benefits.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the demand for unemployment benefits via the website. Case handling, decision and delivery (ex. payment) of the standard procedure to obtain unemployment benefits are completely treated via the web. No other formal procedure is necessary for the applicant via “paperwork”.</td>
</tr>
</tbody>
</table>
### 4. Personal documents

**Definition of the public service**
Personal documents: passport and driver's license

**Research definition**
Standard procedure to obtain an international passport and standard procedure to obtain a driver's license

<table>
<thead>
<tr>
<th>Stage 0</th>
<th>The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to obtain an international passport is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to obtain an international passport in a non-electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to obtain an international passport.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>NOT APPLICABLE</td>
</tr>
</tbody>
</table>

### 5. Car registration

**Definition of the public service**
Car registration (new, used, imported cars)

**Research definition**
Standard procedure to register a new, used or imported car.

<table>
<thead>
<tr>
<th>Stage 0</th>
<th>The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to register a new, used or imported car is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to register a new, used or imported car in a non electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to register a new, used or imported car.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the registration of new, used or imported cars via the website. Case handling, decision and delivery of a standard procedure to register a new, used or imported car can completely be treated via the web. No other formal procedure is necessary for the applicant via “paperwork”</td>
</tr>
</tbody>
</table>
### 6. Building permission

**Definition of the public service**
Application for building permission

**Research definition**
Standard procedure to obtain a building or renovation permission for a personal building (regular, initial request, i.e. not taking into consideration contesting and appeal).

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4. |
| Stage 1 | The information necessary to start the procedure to obtain a building or renovation permission is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to obtain a building or renovation permission in a non electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to obtain a building or renovation permission. |
| Stage 4 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat a building or renovation permission via the website. Case handling, decision and delivery of a standard procedure to obtain a building or renovation permission can be treated via the web. No other formal procedure is necessary for the applicant via “paperwork” |

### 7. Declaration to the police

**Definition of the public service**
Declaration to the police (e.g. in case of theft)

**Research definition**
Standard procedure to officially declare a theft of personal goods (ex. car or home burglary) to a local police office.

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 3. |
| Stage 1 | The information necessary to start the procedure to make an official declaration of theft of personal goods to the local police is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to make an official declaration of theft of personal goods to the local police in a non electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to make an official declaration to the local police. |
| Stage 4 | NOT APPLICABLE |
8. Public libraries

Definition of the public service
Public libraries (availability of catalogues, search tools)

Research definition
Standard procedure to consult the catalogue(s) of a public library to obtain specific information regarding a specific carrier (Book, CD, …).

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4. |
| Stage 1 | The information necessary to start the procedure to consult the catalogues of a public library to obtain a specific information carrier is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to consult the catalogues of a public library to obtain a specific title in a non electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to search for a specific information carrier (book, CD…). |
| Stage 4 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to search for a specific title (book, CD…) and to make an electronic reservation or to obtain an electronic copy. |

Although for this service the tender of the European Commission predefined a maximal stage 3, we took into account stage 4. Following the structure of the stages as defined in the same document by the European Commission and by analogy of the developments in the field of e-commerce, one can define the following stage 4 for public libraries:
### 9. Certificates
**Definition of the public service**
Certificates (birth and marriage): request and delivery

**Research definition**
Standard procedure to obtain a birth or marriage certificate (can be one document out of the National register of persons in some countries).

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>Stage 0</td>
<td>The service provider or the administrative responsible level does not have a public accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 3.</td>
</tr>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to obtain a birth or marriage certificate is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to obtain a birth or marriage certificate in a non electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to obtain a birth or marriage certificate.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>NOT APPLICABLE</td>
</tr>
</tbody>
</table>

### 10. Enrollment in higher education
**Definition of the public service**
enrollment in higher education/university

**Research definition**
Standard procedure to enrol students in a university or another institution of higher education subsidised by an official administrative body in the country.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
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<tbody>
<tr>
<td>Stage 0</td>
<td>The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4.</td>
</tr>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to enrol students in a university or another institution of higher education is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to enrol students in a university or another institution of higher education in a non electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to enrol students in a university or another institution of higher education.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the enrollment of students in a university or another institution of higher education via the website. Case handling, decision and delivery of a standard procedure to enrol students in a university or another institution of higher education can be treated via the web. No other formal procedure is necessary for the applicant via “paperwork”</td>
</tr>
</tbody>
</table>
### 11. Announcement of moving

**Definition of the public service**
Announcement of moving (change of address)

**Research definition**
Standard procedure for the announcement of change of address of a private person moving within the country.

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 3. |
| Stage 1 | The information necessary to start the procedure to officially announce a change of address is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to officially announce a change of address in a non electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to officially announce a change of address. |
| Stage 4 | NOT APPLICABLE |

### 12. Health related services

**Definition of the public service**
Health related services (interactive advice on the availability of services in different hospitals; appointments for hospitals)

**Research definition**
Standard procedure to obtain an appointment at a hospital officially recognised by a national, regional or local authority.

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4. |
| Stage 1 | The information necessary to start the procedure to obtain an appointment at a hospital is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to obtain an appointment at a hospital in a non-electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to obtain an appointment at a hospital. |
| Stage 4 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the demand of an appointment via the website. Case handling, decision and delivery of a standard procedure to obtain an appointment at a hospital can be treated via the web. No other formal procedure is necessary for the applicant via “paperwork” |
13. Social contributions
Definition of the public service
Social contributions for employees

Research definition
Standard procedure to declare social contributions for employees affected by corporations

<table>
<thead>
<tr>
<th>Stage 0</th>
<th>The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to declare social contributions for employees is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to declare social contributions for employees in a non electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to declare social contributions for employees.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the declaration of social contributions for employees via the website. Case handling, decision and delivery of a standard procedure to declare social contributions for employees can be treated via the web. No other formal procedure is necessary for the applicant via &quot;paperwork&quot;.</td>
</tr>
</tbody>
</table>

14. Corporate tax
Definition of the public service
Corporate tax: declaration, notification

Research definition
Standard procedure to declare corporate tax for income from normal activities of a corporation

<table>
<thead>
<tr>
<th>Stage 0</th>
<th>The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to declare corporate tax is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to declare corporate tax in a non electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to declare corporate tax.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the declaration of corporate tax via the website. Case handling, decision and delivery of a standard procedure to declare corporate tax can be treated via the web. No other formal procedure is necessary for the applicant via &quot;paperwork&quot;.</td>
</tr>
</tbody>
</table>
15. VAT
Definition of the public service VAT: declaration, notification

Research definition
Standard procedure for VAT declaration and/or notification for transactions regarding normal activities of a corporation

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4. |
| Stage 1 | The information necessary to start the procedure to declare VAT is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to declare VAT in a non electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to declare VAT. |
| Stage 4 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the declaration of VAT via the website. Case handling, decision and delivery of a standard procedure to declare VAT can be treated via the web. No other formal procedure is necessary for the applicant via “paperwork”. |

16. Company registration
Definition of public service as mentioned in the tender of the EC Registration of a new company

Research definition
Most important registration procedure to start a new company

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4. |
| Stage 1 | The information necessary to start the procedure to register a new company is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to register a new company in a non-electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to register a new company. |
| Stage 4 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the declaration of a new company via the website. Case handling, decision and delivery of a standard procedure to register a new company can be treated via the web. No other formal procedure is necessary for the applicant via “paperwork”. |
17. **Statistical data**

**Definition of the public service**
Submission of data to statistical offices

**Research definition**
Standard procedure to submit at least one statistical questionnaire with data to the National Institute for Statistics of the country.

<table>
<thead>
<tr>
<th>Stage 0</th>
<th>The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to submit at least one statistical questionnaire to the National Institute for Statistics is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to submit at least one statistical questionnaire to the National Institute for Statistics in a non electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to submit at least one statistical questionnaire to the National Institute for Statistics.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>NOT APPLICABLE</td>
</tr>
</tbody>
</table>

18. **Customs declarations**

**Definition of the public service**
Customs declarations

**Research definition**
Standard procedure for customs declarations related to the normal activities of a corporation.

<table>
<thead>
<tr>
<th>Stage 0</th>
<th>The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>The information necessary to start the procedure to declare customs is available on a publicly accessible website managed by the service provider or by the administrative responsible level.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to declare customs in a non electronic way.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to declare customs.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the declaration of customs via the website. Case handling, decision and delivery of a standard procedure to declare customs can be treated via the web. No other formal procedure is necessary for the applicant via “paperwork”.</td>
</tr>
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19. Environment-related permits

**Definition of the public service**
Environment-related permits (incl. reporting)

**Research definition**
Standard procedure to obtain at least one environment-related permit, delivered at the lowest administrative level, concerning the start of a corporate activity (not taking into consideration contesting and appeal).

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4. |
| Stage 1 | The information necessary to start the procedure to obtain an environment-related permit is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to start the procedure to obtain an environment-related permit in a non electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to start the procedure to obtain an environment-related permit. |
| Stage 4 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the delivery of environment-related permit via the website. Case handling, decision and delivery of a standard procedure to obtain an environment-related permit can be treated via the web. No other formal procedure is necessary for the applicant via "paperwork". |

20. Public procurement

**Definition of the public service**
Public procurement

**Research definition**
Standard procedure for a tender for public procurement, subject to national public announcement

| Stage 0 | The service provider or the administrative responsible level does not have a publicly accessible website or the publicly accessible website managed by the service provider or by the administrative responsible level does not qualify for any of the criteria for the stages 1 to 4. |
| Stage 1 | The information about the tender is available on a publicly accessible website managed by the service provider or by the administrative responsible level. |
| Stage 2 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to obtain the paper form to tender in a non electronic way. |
| Stage 3 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility of an electronic intake with an official electronic form to tender. |
| Stage 4 | The publicly accessible website managed by the service provider or by the administrative responsible level offers the possibility to completely treat the tender via the website. Case handling, decision and delivery of a standard procedure to tender can be treated via the web. No other formal procedure is necessary for the applicant via "paperwork". |
9 Annex: Results by Country

For all countries participating in the survey, find below the score on the indicator “Online Sophistication”.

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For all countries, participating in the survey, find below the score on the indicator “Fully Available Online”.

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10 Annex: Results Per Service (Online Sophistication)
This service is not relevant for Belgium, Denmark, Finland, Iceland and Sweden.

This service is not relevant for Austria, Denmark, Finland, Ireland, Italy, Lithuania, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Slovakia and United Kingdom.

This service is not relevant for Czech Republic and Iceland.
This service is not relevant for Austria and Malta.

This service is not relevant for Austria, Belgium, Finland and Italy.
This service is not relevant for Finland and Norway.

This service is not relevant for Ireland and United Kingdom.
This service is not relevant for Austria, Estonia, Germany, Iceland, Ireland, Netherlands, Norway, Switzerland, Sweden and United Kingdom.

This service is not relevant for Denmark.
This service is not relevant for United Kingdom.
Some of the public service providers are classified as “not relevant” for certain countries due to the legal context and administrative organisation of that specific country. Non-relevant services are not included in the calculation of the scores.

The overall score of a country is then calculated as the average of the relevant services. This Annex provides an overview of the non-relevant services. Thanks to a more thorough communication with the member states during the different steps in the project, we received more detailed information about the non-relevant services.

**Fully automatic services**

**Social security benefits—Child allowances**

- **Finland**: Child allowances are paid automatically by the Social Insurance Institution (KELA—http://www.kela.fi/) as soon as a child’s birth is registered by the hospital to the Population Register Centre, and until the end of the month in which the child reaches the age of 17.
- **Iceland**: To obtain benefits for children no application is necessary.
- **Sweden**: After a child is born and registered in the national population registration books, the Swedish Social Insurance Agency pays the child allowance to the parents automatically.
- **Belgium**: The service is fully automated.
- **Denmark**: No application is necessary.

**Services through intermediaries**

**Car registration**

- **Austria**: The car registration has been privatised and is handled by private insurance companies. So the insurance brokers are intermediaries for the car owners. Therefore this service is not relevant.
- **Finland**: This service is not relevant for Finland, where cars are not registered by individuals but by third parties (insurance companies and car dealers). Registrations are processed by the Finnish Vehicle Administration (AKE).
- **Italy**: This service is not relevant for Italy. Car registration is provided directly by the car dealers, which are connected by a private network to the Ministry of Transport and the Public Car Register (PRA). The network includes about 6,000 desk points across the country. All the desk points are connected to the procedures for car registration by a unified online access point (Sportello telematico cooperante).
- **Belgium**: The service has been integrated.

**Health-related services**

- **Austria**: In Austria, it is the general practitioner that makes an appointment in a hospital, not the patient himself.
- **Estonia**: This service is not relevant for Estonia, where it is the general practitioner that books hospital and specialist appointments, not the patients themselves.
- **Iceland**: It is the general practitioner that makes an appointment in a hospital, not the patient himself. Patients are referred to hospitals by GPs or by their local health care centers. The service was considered
irrelevant due to this intermediary.

- **Ireland**: It is not possible for an individual to obtain an appointment. Hospital appointments/referrals are obtained via one’s doctor (General Practitioner—GP), and not by citizen. Therefore this service may not be relevant/appropriate.

- **Netherlands**: Appointments are managed by individual hospitals. They are requested by individual patients or their referral physician.

- **Norway**: The Norwegian health system stipulates that each referred patient are booked into there nearest hospital via the primary physician.

- **United Kingdom**: Although patients are entitled to book online an appointment at the hospital and time of their choice on the “Book and Choose” website, a general practitioner must provide them with a prior authorization and reference number to have the appointment finalized with the hospital.

- **Sweden**: Appointments are made by general practitioners.

- **Switzerland**: Appointments are made by general practitioners.

**Non-existing services**

**Social security benefits—Medical costs**

- **Austria**: Costs for medical treatment and medicine are usually covered by obligatory health insurance and there is usually no need for citizen to ask for any reimbursement. Pharmacies settle up the costs for medicine with the social security institutions using electronic standard procedures. The Austrian Social Security has a project to issue all Austrian citizen with smart health insurance cards (e-Card), which country-wide distribution is due to start in 2005.

- **Denmark**: No application is necessary.

- **Finland**: No application is necessary.

- **Ireland**: This service is not relevant for Ireland, where healthcare is free at the point of delivery in public health services. Persons insured for public health in Ireland receive a medical card issued by the Health Service Executive (HSE) Area, which gives them access to a number of health services either free of charge or subsidised: GP (family doctor) services; prescribed drugs and medicines (with some exceptions); in-patient public hospital services; out-patient services; dental, optical and aural services; medical appliances; maternity and infant care services.

- **Italy**: This service is not relevant for Italy. Citizens do not have to apply for reimbursement of medical costs. The National Health Service (SSN) is administered by the Regions and is free at the point of delivery. Citizens pay, in some case, a contribution (ticket) for care directly at the cash desk of the health organisations (hospitals, local health agencies, pharmacies, etc.), which is not refundable.

- **Lithuania**: This service is not relevant for Lithuania. There is no need for Lithuanian residents to ask for any reimbursement. Costs for some medicine are covered by mandatory health insurance and Lithuanian residents pay only part of the cost for such medicine, which is not reimbursed. Pharmacies register every such purchase and provide appropriate information to the State Patient Fund and are directly reimbursed.

- **Malta**: Maltese citizens are entitled to free health services provided by the Government in numerous public hospitals and health care centres. As a result, the citizens of Malta are not obliged by law to insure themselves medically. As a result, there is no need for such an eService.

- **Netherlands**: New system is in place since January 1st. Everybody must be insured by a basic insurance at a private insurer.

- **Norway**: For the patient treatment is free of charge and therefore has no need for reimbursement of costs. The National insurance administration reimburses the hospitals directly after treatments have been made to patients.

- **Portugal**: Following the legislation, health care is usually free, based on the economic and social conditions of the person. For each treatment or appointment the user must pay a fee called “Moderate Tax”.

- **Spain**: Medical treatment is free at the point of delivery in the public health service, and costs outside the public health service are not reimbursed.
- **Slovakia**: Slovak citizens do not pay for medical services covered by the mandatory insurance system.
- **Sweden**: All Swedish citizens are automatically covered by the national health insurances, including a coverage of medical costs.
- **Switzerland**: Health insurance is privately organised in Switzerland and therefore no eGovernment-Service.
- **United Kingdom**: Most treatment in the National Health Service (NHS) is free at the point of delivery. There can be charges for some things (NHS prescription and dental charges, optical and hospital travel costs), for which help with some health costs is limited to people living on a low annual income (maximum amount is decided for each tax year).

**Social security benefits—Student grants**
- **Czech Republic**: There is no public system of student grants in the Czech Republic. A type of ‘student loan’ is offered by banks.
- **Iceland**: Services that are available only propose loans. No system is in place in Iceland to offer real student grants.

**Birth and marriage certificates**
- **Finland**: This service is not relevant in Finland, where birth and marriage certificates are not commonly used and therefore not needed by citizens. Public authorities have direct access to the Population Register if they need information on a person’s family status.

**Announcement of moving**
- **Ireland**: This service is not relevant for Ireland, where there is no obligation to inform the authorities of a change of address.
- **United Kingdom**: There is no obligation on citizens to formally inform government authorities of a change of address. There is currently a private and independent website ‘I’m moving’ organizing moving announcement to governmental entities and others.

**Submission of statistical data**
- **United Kingdom**: In the UK, where businesses are not obliged to submit data to the national statistical office.
12 Annex: Capgemini’s Web-Based Survey Method

The survey-process developed by the Capgemini team contains 4 modules:

- Landscaping of the governmental structure of the countries
- Sampling of the multiple service providers & identification of URLs
- Web-based survey and scoring of the websites
- Analysis of the results

The process chart below demonstrates the different modules:

**Figure 19: Survey Process**

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<td>Lists of URLs</td>
<td>Web Search</td>
<td>Provisional Results</td>
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<td>Sampling of services providers &amp; URL search</td>
<td>Web-based survey and scoring</td>
<td>Analysis of the scoring results</td>
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**Module 1—Political Landscaping: Screening the governmental structure of the participating countries and listing the service providers**

The Capgemini team opted for a bottom-up approach in elaborating the research methodology. The formulated initial question was, from the point of view of an applicant (individual citizen or business): “What is the responsible service provider for the delivery of a particular public service in a specific country?” The websites of these service providers were then defined as the observation units of the research.

In the first phase of the research the network of government experts from the Directorate General for Information Society and Media in each of the 28 countries was consulted to obtain an overview of the different ways in which the 20 public services are organized and of the variety of internet applications being developed in Europe.

The screening provided a complete overview of the organization of the service providers to be evaluated. For the 6th measurement, the responsible contact persons for each Member State have been invited to use a TeamRoom to interact with the eGovernment Research Team. Each Member State was allocated with a personalised web page were all information regarding the survey for their countries were provided.

Every participant in the network of government experts had the possibility to access the services for their respective country after they had been granted with a Login ID and a personal password.

In the following paragraphs the different modules will be further described.

Generally there has been a stronger emphasis on thorough validation of the preparation and final results by the member states in the 6th measurement. How this was achieved is described in the following paragraphs.
The responsible contact persons when accessing the TeamRoom for their country could get an interactive overview of all the e-government services together with the names of all other participants for their respective countries:

It was required that citizen and business services had to be checked and validated by the responsible contact persons.

Each service was launched on a separate page for which a set of 4 questions had to be answered:
- Does the service exist?
- (If yes) are there reasons why this service should be considered irrelevant in your country?
- (If yes) which public authority is providing the service and at what level is it providing it?
- Are there intermediaries between the provider and the customer?

The following screen provides an example of the description of a service (Corporate tax in Belgium) and the steps to follow in order to complete the political landscaping for this eService and validate the results.

The different categories of service providers taken into account are:
- National governmental units
- Regional governmental units
- Cities and municipalities
- Specific multiple service providers:
  - Public libraries
  - Hospitals
  - Universities/Institutes of higher education
  - Police offices
  - Public insurance companies
Module 2—List of URLs: Sampling of multiple service providers and URL identification

As a fully exhaustive survey of the complete lists of all the multiple service providers was not feasible due to logistics, Capgemini elaborated a statistical methodology to draw a representative sample in cases where the number of units was too large. This methodology combines different statistical methods, depending on the size and character of the service providers:
- Stratification
- Systematic sampling with unequal probability
- Random sampling

A combination of stratification and systematic sampling was used for those service providers organised on a specific regional base:
- Municipalities
- Regional authorities
- Local police offices
- Libraries

The weighing methodology that was developed for the systematic sampling also allows the calculation of a scientifically valid aggregate score for the individual websites of multiple service providers.

The sampling procedure was repeated for each measurement: The overall scores of public services provided by multiple service providers were based on new samples.

The next step in the set-up of the web-survey was the identification of the URLs of the multiple service providers. To be able to give a maximum guarantee that service providers which were selected to participate in the research and manage an official website participated effectively, Capgemini developed a search strategy that offered a maximum guarantee that each website was found.

Also the URLs were validated by the Member States after the consultation phase of the TeamRoom for their countries.

Module 3—Web Search: Web-based survey and scoring of the websites

The URLs of the service providers were documented in a relational database. This database fed a web-based scoring tool developed by Capgemini to carry out web-surveys.

The research team executing the content analysis and scoring of the URLs used this web-enabled application. As the number of URLs to score per country is extensive and the exact interpretation of the different stages is crucial, the tool contains a very precise and structured procedure. The scoring tool guides the researcher through a well-defined path that leads to a score per service.

Checks and controls are built in and performed at various stages in this research tool to guarantee a maximum level of accuracy in the results.

Module 4—Provisional Results: Analyzing and reporting

About 12,590 search actions were realised corresponding to the number of service providers identified.

The database with results is organised on the basis of results measured from the websites of the public services providers. The structure of the data allows the analysis per service and per country as well as by cluster of services (such as registration or returns) or super-cluster (Government to Citizen, Government to Business).

The scoring tool recalculates the scoring of the individual websites as a percentage of the maximum score per public service. When a service is organised on different levels, the final result for each service can not be lower than the average of the regional websites or the result on a national level.

The figure below schematises the analysis structure:

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Figure 20: The Aggregation Score per Service

<table>
<thead>
<tr>
<th>Input</th>
<th>Scoring</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,590 Public Service Providers</td>
<td>Score per Service Provider</td>
<td>% of achievement as compared to the reference model per service per country (stages of maturity in eGovernment service provision)</td>
</tr>
<tr>
<td>National</td>
<td>Highest</td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td>Weighted Average</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>Weighted Average</td>
<td></td>
</tr>
</tbody>
</table>
The calculation of the percentages is then as follows:

<table>
<thead>
<tr>
<th>Average Stage</th>
<th>Final Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-0.99</td>
<td>0%–24%</td>
</tr>
<tr>
<td>1–1.99</td>
<td>25%–49%</td>
</tr>
<tr>
<td>2–2.99</td>
<td>50%–74%</td>
</tr>
<tr>
<td>3–3.99</td>
<td>75%–99%</td>
</tr>
<tr>
<td>4</td>
<td>100%</td>
</tr>
</tbody>
</table>

The calculation of the percentages is then as follows:

The final percentage per country is calculated as the average of the percentages of the 20 services for that country. The percentage per country for public services for citizens is the average of the percentage of the services 1 to 12. The percentage per country for public services for business is the average of the percentage of the services 13 to 20.

Translating the scoring results in the binary framework the indicator fully available online is recalculated. Services receiving the maximum stage (4 or 3) score 1; services marked at a lower level score 0. The indicator is then calculated as the percentage of services scored as 1 on the total number of analysed services.

The results were proposed for validation to each member state.
Annex: The Four Service Clusters

**EU(28)—Growth**

**Income-generating Cluster**

**Figure 21: Income–generating services**

**Registration Cluster**

**Figure 22: Registration Services**
Return Clusters

**Figure 22: Returns**

- Online Sophistication
- Full Available Online
  - Job search services
  - Social security benefits
  - Public procurement
  - Health related services
  - Declaration to the police
  - Public libraries (catalogues, search tools)

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- Apr 2004 - Oct 2004

Permits and Licenses Cluster

**Figure 23: Permits and Licenses**

- Online Sophistication
- Fully Available Online
  - Personal documents
  - Environment-related permits
  - Application for building permission
  - Enrolment in higher education

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- Fully Available Online
  - Personal documents
  - Environment-related permits
  - Application for building permission
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- Apr 2004 - Oct 2004
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