Pan-European Services in Slovenia

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Abstract: In 2009 we conducted a study on pan-European electronic services. The main focus was on eGovernment and eHealth. First, qualitative interviews were performed to determine key areas of priority and essential problems in this area; for a small country such as Slovenia, not all topics may be equally relevant. In addition, a telephone survey was conducted in individuals between the ages of 18 and 75 years. Not surprisingly, the respondents showed the most interest in pan-European eHealth services, remote access to health data, and in certification of education - the process of obtaining degrees (in that order). The least interest was shown in the establishment of online enterprises, and for the recognition of Slovenian public administration certificates in European Union member states (and vice versa). However, the interest for e-services in the realm of public administration is quite high. This interest in public administration services is connected to age (younger respondents show less interest) and employment status (students and the retired show less interest than do the employed and unemployed). The interest for public administration e-services is therefore linked to specific life situations. Accordingly, it is not surprising that interest is higher among those who most frequently travel to other EU countries. As for the use of public administration services in other EU countries, it is not very frequent – less than a tenth of respondents used it, more than half of them online. The countries where respondents most frequently use these services are Germany, Italy, and Austria. Considering the frequency of use, the order is reversed: Austria is in first place, then Italy and Germany, which shows that Austria has achieved the highest level of development of public administration e-services. In comparison to similar research undertaken by Cap Gemini worldwide, our survey showed a higher level of interest for electronic managing health insurance, recognition of education or other qualifications, and recognition of marriage and birth certificates. Among the respondents who lived abroad a month or longer, the interest for e-public administration domains in general is higher than for the respondents in the Cap Gemini survey. An exception is in the tax field, in which our respondents are less interested than the Cap Gemini respondents.

Keywords: Pan-European services, eGovernment, eHealth

1. Introduction

With the increasing mobility of European citizens it is increasingly important that access to essential services does not depend on “local knowledge”. Presently, most eGovernment services are provided at the national or sub-national (regional or local) level. There are several ways to add a cross-border dimension; these ways range from the relatively simple (such as making a service available in another language than that of the European Union [EU] member state in which the service is being accessed), to more complex ways (such as information sharing between public administrations of different EU member states), or even through provision of a service at a “pan-European” level in which parts of the public administrations of all EU member states participate as a “back office” to this service. The term “pan-European eGovernment services” (PEGS) may seem to imply that only the latter example (service provision at the European level) would qualify for the name. However, it would be not useful to understand PEGS in such a limited way. PEGS are important because they add a European dimension to eGovernment services, and it is this European dimension and the progress towards it that matters. PEGS come in different forms, are developed by different actors, and in different areas, and have different development trajectories (Weehuizen and van Oranje, 2007).

In the report *Innovative and Adaptive PEGS for Citizens in 2010 and Beyond* (Glott and Haaland, 2007), which was a part of the EUReGOV project of the same name that was prepared for the Directorate general - DG Information Society & Media of the European Commission, PEGS were defined as having the following characteristics:

- Provided by or on behalf of European public sector entities,
- At local, regional, national, or supra-national level,
- By means of interoperable trans-European telematics networks (e.g. the Internet),
- In order to perform public administration tasks, including provision and exchange of information and provision of participation opportunities for citizens,

- That meet a demand of other public entities and particularly demand of other citizens at any geographic level,
- For "material" services as well as for the generation of civic attitudes that address pan-European tasks or improve citizens' identification with the EU,
- With the potential to be extended towards a majority of EU member states (instead of, for instance, only in countries with the same language, like UK and Ireland or Germany and Austria),
- By either being designed to expand or by containing elements (of, for instance, service integration, interoperability, or e-Inclusion) that could feed in the design of future eGovernment services on pan-European level.

By IDABC (Interoperable Delivery of European eGovernment Services to public Administrations, Businesses and Citizens; http://ec.europa.eu/idabc/) definition, the horizontal pan-European eGovernment services are "measures undertaken to initiate, enable and manage the provision of horizontal pan-European eGovernment services, including organizational and coordination aspects" (De Vriendt, 2005).

For the research purpose of this project there were two data gathering methodologies used in the process. First we performed a series of qualitative expert interviews with key local, regional, national, and European PEGS experts. Then in December 2009, a telephone survey was conducted on a sample of about 600 persons aged from 18 to 75 years. The Cap Gemini survey was also used to compare our results. As well during the study process some relevant EU documents and studies were used to frame the research focus, such as:

- eGovernment for all (eGovernment Action plan 2011-2015) commits the EU member states to rely on information and communications technology (ICT) solutions to develop and promote improved ways for business and citizen participation in public policy consultations, debates, and policy-making processes. The Action Plan focusses on five main priorities. Foremost among these is the aim of making eGovernment inclusive, so that "no citizen is left behind". The Action Plan aims to make high-impact services for citizens and businesses more widely available, including electronic procurement services for businesses, services for mobile citizens (including improved ability to search for jobs across the European Union), or social security services (for example, pension records and electronic benefit applications).
- A Digital Agenda for Europe (Digital Agenda for Europe 2010-2020) for maximising the social and economic potential of ICT, most notably the Internet, a vital medium of economic and societal activity: for doing business, working, playing, communicating, and expressing ourselves freely. European governments are committed to making user-centric, personalised, multiplatform eGovernment services.
- The Vision Study (SMART 2006/0064) stimulated the debate on the key transformations and challenges ahead for the renewal of the European eGovernment agenda beyond 2010.
- The Guidelines on Sustainable Business Models for Inclusive Public Service Delivery (SMART 2007/0052) study analyses the state of the art of the multichannel delivery of public services throughout Europe, and the progress made towards achieving the goal to ensure that "no citizen is left behind". It provides useful recommendations and identifies further actions that will be needed over the next few years.
- The Progress Study (SMART 2008/0042) is a qualitative progress evaluation of the i2010 eGovernment Action Plan, 2006-2010. The objectives of the study were to qualitatively analyse the progress towards achieving the goals of the Action Plan, and to evaluate its stimulus effect across the member states.
- Study on eGovernment scenarios for 2020 and the preparation of the 2015 Action Plan (SMART 2009/0069) provided concrete input to the eGovernment 2015 Action Plan in terms of assessing objectives and validated priorities, delivering innovative ideas, and proposing a range of policy actions in support of these priorities.

To better understand the PEGS in Slovenia, a small country where not all of the topics mentioned above may be equally relevant, two data gathering tools were used. First, qualitative interviews were performed to frame key priority areas and address essential problems. Second a telephone survey was conducted among active Internet users. *Active Internet user* was defined as "anyone who used the Internet in the last three months".

2. Analysis of expert interviews

As detailed previously (Vintar et al, 2010), we performed a series of qualitative expert interviews with key local, regional, national, and European PEGS experts in order to effectively analyse the state of affairs, strategies, and priorities in the domain of PEGS, and to identify key services that should be implemented in future. In total, 14 interviews were performed: 10 with experts in e-administration, 3 in eHealth and 1 in the e-business domain. The main objective was to determine the key PEGS to be implemented in the future to ensure interoperability and mobility of Slovenia in the wider European market.

Experts believe PEGS to be very important in general, but with regard to specific services their views differ, especially with respect to the order in which PEGS should be introduced. A quite wide range of domains was studied and examined with an eye toward what would be needed to enact workable pan-European PEGS: interviews/canvassing of companies employing foreign workers in Slovenia, population databases and their linkage, horizontal linkage, interoperability of services, and from the so-called "E-procurement" domain (public commissions, pan-European health cards, and so forth). The experts' opinions focused on the different elements that would be required to enact services in the pan-European space as well as on services themselves. To provide examples, administration of taxes demand an obligatory and unified pan-European taxation number; the linking of population registers would be needed for car registration abroad, and for extending the validity of drivers' licences to include a greater number of member states. In the research process, some good practices from the EU were uncovered, for example Smart Cities (for connecting different European cities and enterprises within them). One expert pointed out that connecting on the mezzo level is a more reasonable start than aiming to connect whole countries. The enterprise viewpoint was exposed frequently, for example with the idea of pay circulation and the concept of SEPA (Single Euro Payment Area). However, connecting on the regional level is currently left to local initiatives.

The key actors in the implementation of PEGS are the European Commission, in the role of connector, the Ministry of Public Administration, and the informatics professional in the role of the carrier of changes. Moreover, the European Commission thinks that politicians should be instructed on the importance of changes related to PEGS, but not until the different schools of thought in the field unify with respect to what initiatives should be undertaken. According to one of the interviewed experts, informatics could be withdrawn from the Ministry of Public Administration and made independent again (as it was before); this might allow for this department to be an independent actor that could step forth from the conflicting interests of others in the subfields that are collaborating to implement PEGS.

An important pan-European service that still lives in practice is, according to one expert, the European driving licence. Another expert exposed the historical background of differences in European population registers; specifically, member states in Eastern Europe (which once had different political systems) are more inclined toward centralisation of that sort of activity, and therefore have better-regulated civil population databases than do member states in Western Europe. The differences are based on different philosophies. In Slovenia, registers were introduced with the reforms of Habsburg Maria Theresa Walburga (1717 – 1780), while the collection of civilian data in Germany (due to the experience of the Second World War) is strictly unwanted and triggers social protests. Thus, cultural differences matter—in Slovenia we tend to control *a priori*, while in Britain control is only imposed when something goes wrong (to use an illustrative comparison).

One of the experts interviewed noted that technical background is the least problematic aspect of such pan-European projects. Interestingly, experts are not uniform in their opinions concerning legal regulation. Some experts strongly value legal regulation, but one expert expressed the problematic nature of legal regulation when it comes to personal data security. In his opinion, despite the adjustment of legislation in various EU member countries to correspond with legislation for the overall European Union, huge differences remain. For example, the RISER project (Registry Information Service on European Residents), in which also the Ministry for Public Administration is included and concerns searching for debtors abroad. The project is very successful in Germany, and eight countries participate in it. However, in Slovenia it is not feasible as our administration will not give data on debtors from Slovenia to foreign enterprises.

One other expert also provided an interesting opinion—using an e-administration system, Slovenians can manage all procedures from abroad, but e-administration does not assure pan-European services. He defined pan-European services as those that enable you to manage things in a foreign country that has no data about you, but can retrieve it from a common register. In particular, another challenge with PEGS implementation in Slovenia is our legislation stating that all collected data must at the disposal of other public administration institutions. This is in tandem with the regulation that data already demanded by one institution cannot then be asked about a second time by another institution. In fact, according to another expert in terms of interoperability the most difficult aspects of PEGS are legislative, political, and organisational (that is, not related to ICT-related issues).

2.1 eHealth domain

The eHealth domain is less developed and accessible and has been exposed as the most problematic by several experts. Therefore it deserves more detailed examination.

Slovenia has participated in the NETC@RDS project (http://netcards-project.com/web/frontpage) since 2003. This project aims to introduce an electronic European health card that would hold health insurance data. Currently, the blue EU health card is in force. This health care card is not electronic but rather includes health insurance data that is physically written down; the card is only valid for one year. It is valid for urgent medical help abroad.

The first phase of the NETC@RDS project was research; the second, pilot; and the last, at the end of 2010, implementation. Interestingly, procedures have not changed after introduction of the electronic card; insurance companies continue to send invoices as usual. The pilot phase of the study is showing that Slovenians who work abroad and have two doctors (one abroad and one at home) are strongly inclined to use the card. The card has therefore found its widest adoption in border regions. There are 16 countries participating in the NETC@RDS project (see http://netcards-project.com/web/partners). As an observer, Slovenia participates also in the Calliope project (http://www.calliope-network.eu/), which is a thematic network aimed at supporting, promoting, and disseminating products of a bigger project, European Patients Smart Open Services (epSOS) (http://www.epsos.eu/).

According to experts, not long ago Slovenia was advanced in the eHealth domain; it now lags behind, except for one insurance company for obligatory health insurance. The health card substantially facilitates procedures, as there is no need to uniformly address first at the national level. Germany, for example, has been trying to introduce the health card for five years, but has been unable to do so successfully due to the many competing interests in the country's economy (regarding the content of the card, the interests of insurance companies, producers, and so forth).

To initiate a higher level of interoperability in the eHealth domain, it is pivotal to introduce the *electronic health record* (or a summary in electronic format), which is used in the Slovenian eHealth project. Our experts had the following to say about it:

- The eHealth project runs within the health ministry, therefore our experts could not speak to the details of it except for the action plan, which is partially funded by European funds.
- In 2010, the eHealth project set up a model of an electronic health record, an agreement for keeping data securely stored in an electronic format.
- Individual doctors and institutions at home and worldwide are already exchanging data in electronic format; however, for now everything is still only local. In Slovenia, some hospital and diagnostic centers are exchanging radiologic images; therefore, having on-duty radiologists is not necessary. Britain, for example, is sending their images to India, probably due to lower costs. Some doctors have their electronic health records, but they work only for themselves.

3. eAdministration domain

According to expert interviews there were some remarks about the FIO system (the phonetic index of persons, Schengen information system), in which foreign workers are authenticated, and it is determined whether they have any restrictions against being able to work and why, and about the new system (RISK) which is less clear and more difficult to use for data searches than its predecessor. It was often stated that Slovenia is well-developed in the eAdministration domain.

On the other hand, it is not known how much these services are used among citizens. Experts stress that Slovenia collaborates in different pan-European projects, including STORK (Secure idenTity acrOss boRders linKed; designed for assuring general European identifications) and IMI (Internal Market Information System; which should enable verification of educational or other certificates, and could be useful also for other services), and PCI (Projects of Common Interests), which merges more sector projects, etc.

3.1 eBusiness domain

Experts provided some critical opinions on the e-VEM system (the Slovenia One Stop Shop project); these criticisms mainly centred on the idea that it is too open, and misuse is possible (for example, multiple enterprises registered at a single address). On the other hand, some experts considered e-VEM to be a world pearl, as Slovenia received the United Nations Public Service prize for it in 2009.

Tax administration was exposed as especially problematic. Every foreigner in Slovenia for employment (except for students) has to obtain a tax number. To do this, he or she needs to enter an application in the register of those liable to taxation, a copy of a personal document, and registration of their certificate of temporary residence. This can also be done for family members supported by the employment, but is mandatory only in cases where these family members also live in Slovenia.

Discrepancies between Slovenia and other countries appear also in income tax declarations, particularly in the ability to receive tax relief by claiming children as dependents. In Slovenia, children can qualify as dependents until their 18th birthdays; for most foreign countries, the age is 21 (reflecting college attendance). In Slovenian legislation concerning foreigners, family members are more broadly defined than they are in the definitions for tax administration.

4. Analysis of households

In December 2009, a telephone survey was conducted on a sample of about 600 persons aged from 18 to 75 years (Vintar et al., 2010). This analysis focuses only on active Internet users in this group (that is, those who used the Internet in the last 3 months; n=365).

Respondents show most interest in the eHealth domain of PEGS, specifically in electronic management of health insurance, electronic linkage of Slovenian eHealth services with similar services in other EU countries (for example, allowing doctors in other countries to access personal health data, and Slovenian doctors to access data from healthcare provided abroad). The next most interesting domain is e-business: electronic management, recognition, editing of school or education, data exchange, and employment documentation.

The least interest is shown in using PEGS for the establishment of on-line businesses and the recognition of Slovenian public administration certificates in EU countries, and vice versa. However, the interest for public administration e-services is quite high. It is connected with age (younger respondents show less interest) and with employment status (students and the retired show less interest than do the employed and unemployed). Thus, the interest in public administration e-services is linked to specific life situations, and not surprisingly is higher among those who frequently travel to other EU countries.

The use of public administration services in other EU countries by Slovenians is not frequent - less than a tenth of respondents used them, more than half of them online. The countries where the respondents most often used these services are Germany, Italy, and Austria. Austria has developed the highest level of public administration e-services as reflected by frequency of use.

In comparison to similar Capgemini worldwide Consulting research, our survey showed a higher level of interest for electronic editing of health insurance, recognition of education or other qualifications, and recognition of marriage and birth certificates. Among the respondents who lived abroad for a month or longer, the interest in e-public administration domains in general is higher than for the respondents in the Capgemini Consulting survey. An exception occurs in the tax field, where respondents from our interviews are less interested than the Capgemini Consulting respondents.

Details regarding the specific elements of the survey are provided in the upcoming sections of the article.

4.1 Interest in public administration eServices

The highest interest (expressed on scale from 1 - not interested at all to 5 - very interested) in public administration e-services was shown for the electronic management of health insurance, as described previously (4,42), followed by electronic linkage of Slovenian eHealth services with similar services in other EU countries (4,19); electronic management, recognition, and alternation of school or education (4,1); data exchange and employment documentation (4,09); electronic management of pension insurance, official electronic data transfer (4,00); electronic management of change of residence (3,85); valid electronic transfer of receipts and extracts (3,78); taxation management documentation (3,71); intra-validity and recognition of electronic signatures (3,68); electronic editing of car registration and insurance (3,64); and the least for establishing businesses (3,59) and recognition of public administration certificates in other EU countries and vice versa (3,58). The breakdown of the participants in the survey according to each level of the 5-point Likert scale is shown in Table 1 below. (Vintar et al, 2010)

Table 1: Interest in public administration eServices

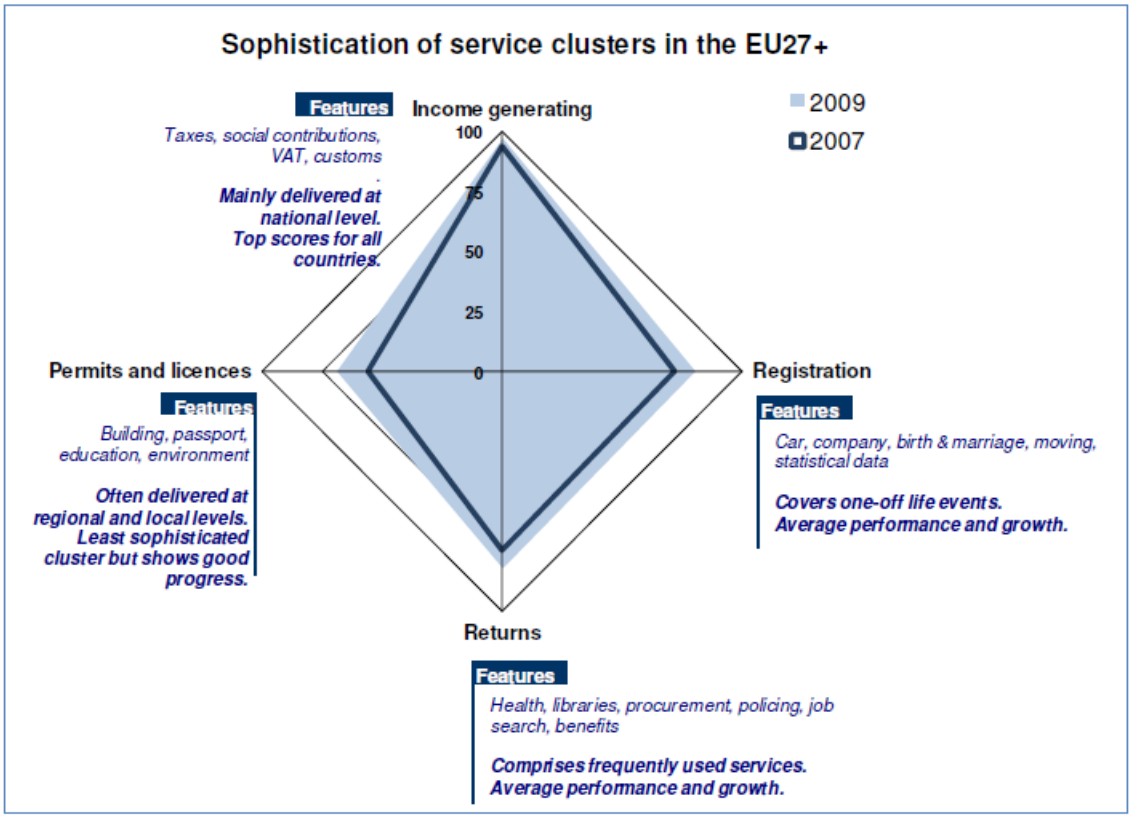
	% (n)					Total (n)	$\bar{x}$	σ	±
	1	2	3	4	5				
	Not interested at all				Very interested		Average	Standard deviation	Confidence interval
Valid electronic transfer of certificates and extracts (e.g. birth, marriage, residence) from Slovenian public administration to EU country public administration.	7 (27)	8 (30)	24 (88)	20 (72)	41 (148)	365	3,78	1,03	0,11
Exchange of data and documentation for arranging employment.	8 (28)	2 (9)	13 (48)	26 (96)	51 (184)	365	4,09	1,41	0,15
Electronic management of migrations (e.g. change of the permanent residence address)	9 (34)	6 (21)	20 (72)	22 (80)	44 (159)	365	3,85	1,21	0,13
Electronic management, acknowledgement and change of school or education.	8 (27)	4 (14)	12 (42)	26 (94)	51 (187)	364	4,1	1,31	0,14
Electronic linking of Slovenian eHealth services with similar services in other EU countries (e.g. access to my health data for doctor in other EU country and vice versa).	6 (22)	3 (10)	14 (49)	22 (79)	56 (203)	363	4,19	1,35	0,14
Electronic management of health insurance.	5 (17)	1 (5)	8 (29)	1 (68)	67 (244)	363	4,42	1,31	0,14
Electronic management of insurance for pension, official electronic data transfer.	7 (24)	5 (17)	20 (72)	20 (73)	49 (179)	365	4,00	1,36	0,14
Acknowledgement of Slovenian public administration certificates in other EU countries and vice versa.	13 (45)	7 (26)	24 (86)	22 (77)	34 (122)	356	3,58	1,26	0,13
Mutual validity and acknowledgement of digital signature.	13 (46)	9 (31)	19 (68)	18 (66)	42 (152)	363	3,68	1,20	0,13
Electronic management of car registration and insurance.	10 (36)	10 (35)	22 (81)	23 (83)	35 (128)	363	3,64	1,29	0,14
Establishing enterprises.	12 (43)	9 (32)	21 (76)	23 (84)	34 (123)	358	3,59	1,19	0,13
Exchange of documentation for managing taxes.	11 (40)	6 (22)	21 (75)	26 (93)	37 (134)	364	3,71	1,15	0,12
Source: Vintar et al. (2010).									

4.2 Public administration services in EU member countries

Public administration services in other EU countries have been used by less than a tenth of respondents (8%). Those who already used them were asked if they did so online; more than half (56%) responded that they did use e-services in other countries. The share of respondents that also lived in another EU country is smaller (11%). Those who lived abroad were there usually less than a year; 29% lived there only one month, 27% more than six months, 14% more than six months but less than a year, and 14% more than one year.

4.3 Slovenia in the Capgemini research

In its 2009 study, Capgemini (Colclough and Tinholt, 2009) measured the "20 basic public services" since inception. Specifically, Capgemini assessed the availability of these services and the sophistication of them as offered through 14,000 public service provider websites across Europe. Europe shows continued steady progress in terms of full online availability. The overall EU27+ measure has risen to 71% in 2009 from 59% in 2007. In terms of sophistication, Europe stands at 83%, compared with 76% in 2007. The report pointed to a coordinated approach of development of a pan-European eGovernment service design and delivery within projects in the areas of: e-Procurement, eHealth, and e-ID (collectively known as the Services Directive). These projects benefit from common building blocks for solutions, service-oriented architectures, and inter-operability across EU. The Capgemini report demonstrates that the goal of improving eGovernment services extends beyond mere provision of services. There is no point in delivering eGovernment services if they are not used, or do not deliver the expected benefits to users. The end results must reflect the outcome they deliver for citizens, businesses, and government itself. The overall sophistication of service clusters with respect to features of eGovernment services is shown for the EU27+ in Figure 1. Slovenia is in the top five countries for which sophistication, availability, and the One Stop Shop approach is considered lagging behind when accessibility and user experiences and satisfaction are measured. The research report on the other hand praises Slovenia's portal site http://e-uprava.gov.si/euprava/ as an all-in-one gateway both to the Slovenian government and EU initiatives; and Slovenia's One Stop Shop for companies, e-VEM, which received the United Nations Public Service Award.

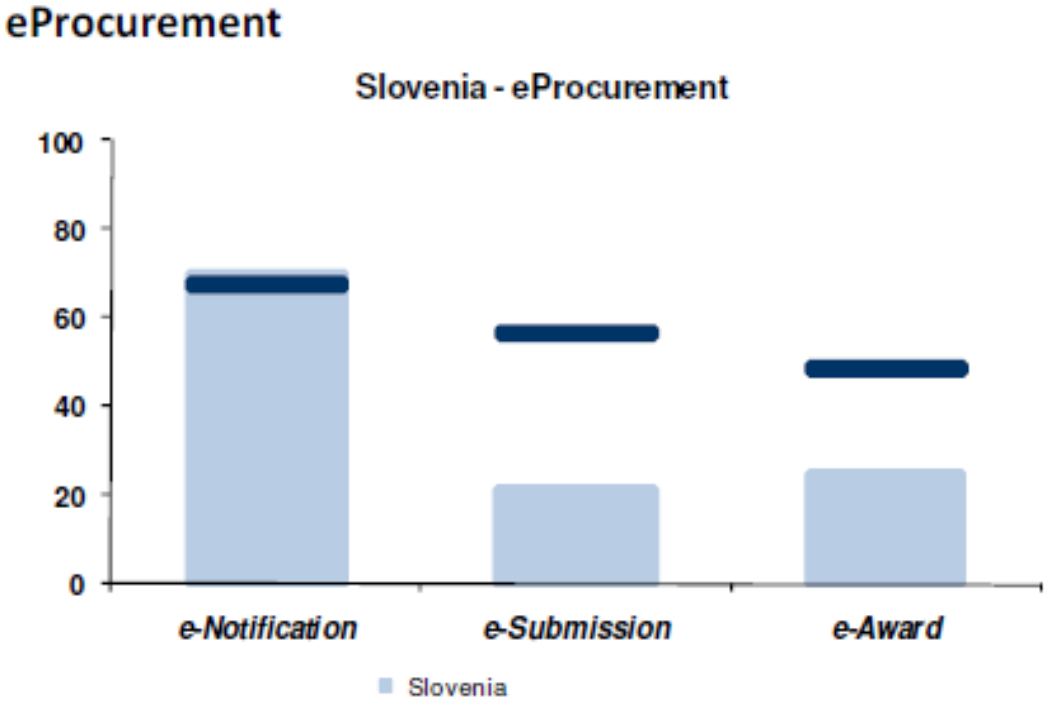


Source: *8th Benchmark Measurement*, Capgemini, November 2009.

Figure 1: Sophistication of service clusters in the EU27+

The Capgemini report states that "the Pan-EU eGovernment for most countries is a national affair. No countries have explicit targets for cross-border service development. Newer [EU member states] would appear to look more to European policy for guidance (i2010), potentially as in some of these countries the management of eGovernment and structural funds falls within the same organization. A growing and now considerable number of EU countries have elected however to participate in pan-European large scale pilots. The four major CIP ICT PSP (competitiveness and innovation program) pilots are actively supported, notably by several of the higher performing countries. Austria for example is active across all large-scale CIP pilots (pilot A). This affords the opportunity to observe, learn from, and potentially influence technology developments within Europe".

Figure 2 shows the e-Procurement process as it has developed in Slovenia. In the Capgemini report it is described as a country that has one of the best scores for the e-notification sub-phase, but its Pre-Award Process indicator is under the EU27+ average. Its e-award and e-submission scores are among the lowest in Europe; Slovenians and foreigners can access a mandatory national e-procurement platform free of charge and without prior registration.



Source: *8th Benchmark Measurement*, Capgemini, November 2009.

Figure 2: eProcurement process development in Slovenia

5. Conclusions

The development of pan-European IT service companies will bring great benefits to EU citizens; it will facilitate the settlement of their affairs with the government, especially when their affairs occur outside their home countries. To achieve this goal, we need interoperability, which plays a crucial role in the development of more efficient, quality, and overall user-friendly services. Interoperability is also critical in establishing a single European market. It is therefore not surprising that at the European Ministerial Conference in Lisbon (2007) interoperability was at the top of the four strategic objectives of eGovernment. They also point out that the European Union through the ICT Policy Support Programme (PCP) project will specifically promote the development of e-procurement and the mutual recognition of electronic identification. In addition, the EU will promote the establishment of interoperability in conjunction with the requirements of the Services Directive. We expect that the Member States will set new priority areas of development of pan-European services. In line with this orientation, the cross-border interoperability as the key to the development of pan-European services was also one of the key strategic directives of the Slovenian EU Council Presidency in the first half of 2008.

Pan-European IT services are closely connected with interoperability of services and products in the field of ICT as one of the most important conditions for successful development of an information society. The ICT market is constantly evolving, spurred by a globalised approach, competition, liberalisation of telecommunications services, convergence of ICT, and increasingly also by media technologies and services. Therefore, we can summarise the results from the telephone survey in two ways:

- Interviewers opinion was that eGovernment services are very complex and use a lot of resources during their introduction but are still needed even in cases where they are not well accepted or used by users; and
- Users' perspective should be more accurately used in designing and in prioritising which services to be introduced.

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