





Measuring E-government User Satisfaction

Extended Summary

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This document presents the major findings of a series of five studies, which were aimed at studying the levels of user satisfaction of all the typical groups of e-government users in Slovenia. The studies consisted of a telephone survey of citizens, a telephone survey of companies, an e-mail survey of public servants, a regular mail survey of societies and a field survey of citizens at administrative units and municipal offices.

The studies were initiated and completed at the Institute for Public Administration Informatisation at the Faculty of Public Administration at University of Ljubljana and was cofinanced by the Directorate for e-Government and Administrative Processes at the Slovene Ministry of Public Administration and by the Slovenian Research Agency. Please direct any further questions to: mateja.kunstelj@fu.uni-lj.si

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1 About the study

The basic aim of the study was to develop a system for measuring the status of development of e-government from the perspective of the users (real and potential) and to establish their level of satisfaction, their ideas, needs and wishes, by employing such a system of measurement.

Thus the objectives of the study were to:

- establish the level of awareness of possibilities offered by e-government,
- establish the level of interest in using e-government,
- establish the extent of use of e-government and the reasons for its non-use,
- establish the level of satisfaction with the current way of supplying information and e-government services,
- identify the most desired e-government services.

The findings of the study are mainly a basis for the evaluation of success in realising current strategies and action plans as well as the formation of new guidelines, strategies and objectives of the development of e-government in the future.

2 Methodology

All key users of e-government are included in the study: citizens, companies, societies as representatives of the nonprofit sector and public servants. For the first two groups telephone surveys were held. The societies were interviewed by mail and the public servants through by an e-mail survey. Further, there was a field survey conducted among citizens at administrative units and municipal offices.

The telephone survey of among the citizens was conducted in July 2005 with the use of the CATI method with a representative sample of n=1028 citizens of at least 18 years of age. The sample was weighed based on population data regarding gender, age, education and region, which assures its correspondence to the Slovenian population and the representativeness of the sample within the given demographic variables. As a consequence, if we consider a sufficient number of units (citizens, who have answered a specific question) and a 95% confidence interval, we may generalise the results to describe the entire Slovenian population or part of the population on whom the results bear relevance.

The telephone survey among companies was conducted in February 2006 using the CATI method on a sample of n=349 companies in four representative groups: large and medium sized companies, small companies, sole proprietors and micro enterprises as well as organisations from the public sector. The target person in the large and medium sized companies was the head of information services or general division, while in the small and micro enterprises the target person was the director. In the case of unavailability of the person the interview was conducted with another person in charge. Sampling was based on the method of finding quotas so the sample is only representative within groups of the particular sizes and takes into consideration an appropriate distribution of fields and regional representation. When considering the number of answers and the 95% confidence interval we may generalize the results only within the particular groups (or quotas) of companies.

The public servants survey was conducted with a questionnaire, which was sent through e-mail to the central addresses of all government administration bodies and municipalities from where the questionnaire was sent to the e-mail inboxes of all the employees. Among the 1818 received answers 44% were from bodies within ministries, 28% from administrative units, 14% from municipalities, 7% from core ministries and 5% from government agencies.

The regular mail survey among societies was conducted in the third quarter of 2005. Sampling was based on the method of proportional stratification with regard to the association's field. From the 997 questionnaires that were sent out, we received 130 valid replies, which constitute a response rate of 13%.

The field survey among citizens was conducted in the third quarter of 2005 with a sample of n=1135 citizens, who were at the time of the survey visiting a particular administrative unit or municipal office. Sampling for the administrative units and municipalities was based on the use of proportional stratification with regard to the size of the population within a particular telephone area code. Thus 8 administrative units and 34 municipalities were included into the sample.

Reading guideline: All the results are given as portions (%) or the mean (average) value of the answers. In the latter case the interviewees rated the various options on a scale of 1 to 5, where 1 always signified the worst mark (completely unsatisfied, do not trust at all, completely unimportant, would not encourage me at all, very bad, etc,), whereas 5 always signified the best mark (very satisfied, trust completely, very important, would encourage me strongly, very good, etc.). When we speak of the possibilities of e-government we have in mind the information that public administration bodies offer on the internet, the ability to communicate with public servants by e-mail, downloadable application forms and electronic government services.

3 Main findings

3.1 Citizens

3.1.1 E-government awareness

97% of the interviewees (100% users of the inetrnet) are aware of at least one of the possibilities offered by egovernment.

However, 49% of the interviewees use the internet and know at least one of the possibilities offered by e-government (all internet users). Most widely known are the electronic government services (among them e-personal income tax, especially), followed by information and application forms, while the least known is the possibility of communicating with public servants by e-mail. Only 16% of the interwiewees use the internet and knows the national e-government web gateway (that is 33% of the internet users).

48% of the interviewees know at least one of the possibilities offer by e-government, but does not use the internet.

- 49% of the interviewees use the internet and know that citizens can use the internet for certain government services (practically all internet users). On the other hand, 47% of the interviewees are aware of government eservices, but do not use the internet.
- Among 26 e-services, which were mentioned by the interviewees, the following are most widely known:
 - o e-personal income tax (86% of all interviewees and 90% of internet users know it), followed by
 - o searching through the COBISS catalogue (68% of all interviewees and 78% of internet users),
 - o job searching at the Employment Service of Slovenia (73% of all interviewees and 77% of internet users),
 - o acquiring a European Health Insurance Card (48% of all interviewees and 53% of internet users),
 - o acquiring a birth/marriage/death certificate (44% of all interviewees and 39% of internet users),
 - o acquiring a Criminal Records certificate of non-conviction (7% of all interviewees and 14% of internet users), and
 - o access to or acquirement of an extract from the Land Register (5% of all interviewees and 5% of internet users).
 - Other services are less known.
- 37% of the interviewees use the internet and know that there is information on the internet about the way the public administration conducts its business, for exmaple information regarding administrative procedures, adresses, office hours and other information about administrative bodies (74% of internet users). On the other hand, 31% of the interviewees are aware of the available information, but do not use the internet.
- 35% of the interviewees use the internet and know that it offers access to downloadable application forms, which are needed to initiate administrative procedures (70% of internet users). However, 27% of the interviewees are aware of the froms, but do not use the internet.
- 29% of the interviewees use the internet and know that they can communicate with public servants by e-mail (59% of internet users). On the other hand, 25% of them know about the posibility but do not use the internet.

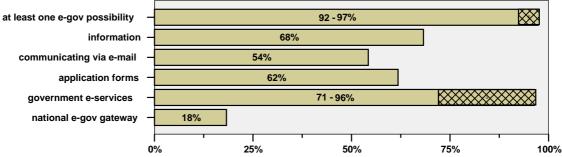


Figure 1: Awareness of particular e-government possibilities among all citizens surveyed (n=1028)

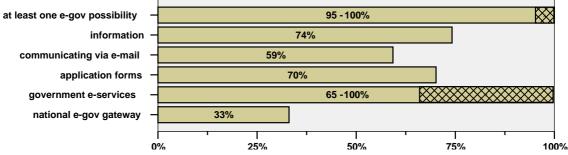


Figure 2: Awareness of particular e-government possibilities among internet users (n=507)

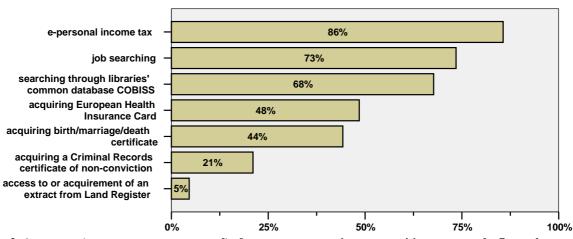


Figure 3: Awareness (spontaneous or encouraged) of government e-services among citizens surveyed – 7 most known e-services (n=1028)

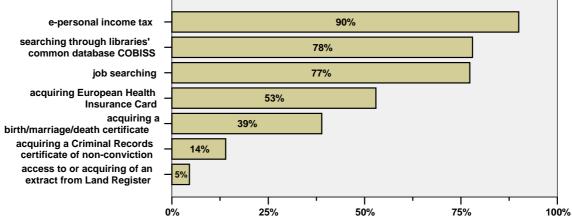


Figure 4: Awareness (spontaneous or encouraged) of government e-services among internet users – 7 most known e-services (n=507)

3.1.2 E-government use

41% of the interviewees have in the past used at least one possibility offered by e-government (83% of internet users). Most heavily used are government e-services (and among them especially searching through the COBISS catalogue), followed by information and downloadable application forms, while the least used is the possibility of communicating with public servants by e-mail.

- 37% of the interviewees have in the past used at least one electronic government service (75% of internet users).
- Among the merely 12 already used e-services the most frequently used are:
 - o searching through the COBISS catalogue (used by 25% of the interviewees -- 50% of internet users),
 - o job searching at the Employment Service of Slovenia (13% of the interviewees -- 27% of internet users).
 - o e-personal income tax (13% of the interviewees -- 26% of internet users),
 - o acquiring a European Health Insurance Card or Convention Certificate (12% of the interviewees -- 24% of internet users)
 - o acquiring a birth/marriage/death certificate (2% of the interviewees -- 3% of internet users),
 - o access to or acquirement of an extract from the Land Register (1% of the interviewees -- 2% of internet users).
 - o obtaining a Criminal Records certificate of non-conviction (1% of the interviewees -- 1% of internet users).
- 21% of the interviewees have in the past looked for information on the internet (42% of internet users), mostly on websites of municipalities, ministries, on the national e-government gateway or the administrative units gateway, on the website of the Tax Administration of the Republic of Slovenia and the Government of the Republic of Slovenia.
- 15% of the interviewees have in the past obtained application forms on the internet (31% of internet users), mostly on the websites of the Tax Administration of the Republic of Slovenia, of ministries, on the national egovernment gateway or on the administrative units gateway and on the websites of municipalities.
- 8% of the interviewees have in the past communicated with public servants by e-mail (17% of internet users), mostly with ministries and municipalities.

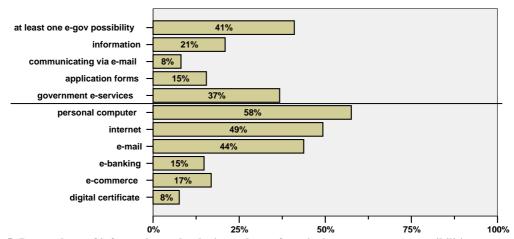


Figure 5: Personal use of information technologies and use of particular e-government possibilities among citizens surveyed (n=1028)

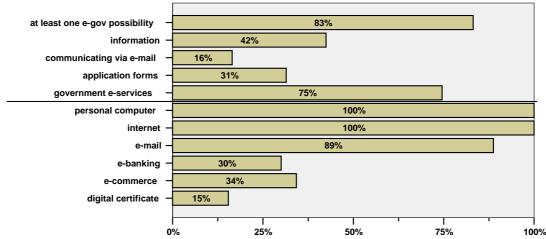


Figure 6: Personal use of information technologies and use of particular e-government possibilities among internet users (n=507)

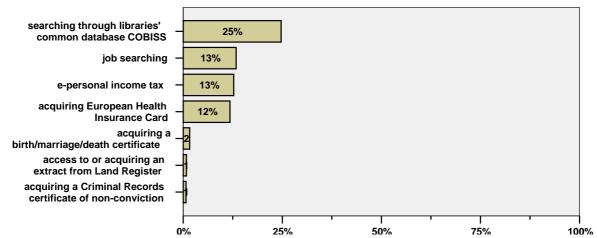


Figure 7: Use of government e-services among citizens surveyed (n=1028)

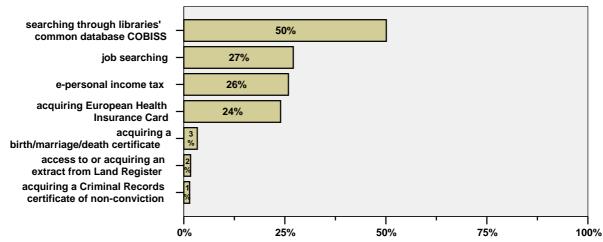


Figure 8: Use of government e-services among internet users (n=507)

3.1.3 Reasons for the non-use of e-government

The comparison between the awareness and actual use of particular possibilities offered through e-government shows a considerable difference. The difference is greatest with the possibility of communicating with public servants by e-mail, followed by downloadable application forms and information, while the smallest difference is with the government e-services (among them the greatest difference is with e-personal income tax).

Beside the non-use of the internet and the unawareness of the possibilities of e-government, the reasons for non-use mostly lie in the fact that people prefer to arrange their business with the administration in conventional ways.

- 51% of the interviewees do not use the internet.
- 25% of the interviewees (20% of internet users) are unaware of information, 25% of the interviewees (33% of internet users) are unaware of the possibility of communicating by e-mail, 30% of the interviewees (23% of internet users) are unaware of the application forms and 4% of the interviewees (none of the internet users) are unaware of electronic government services.
- On the other hand, among the internet users:
 - o 32% of those who are aware of available information have not yet obtained this information, because they have not needed it, because they prefer conventional methods of arranging their business and because this possibility does not interest them;
 - o 43% of those aware of the possibility of communicating with public servants by e-mail have not made use of this possibility, mostly because they have not had the need for this possibility and because they are of the opinion that it offers no particular advantage;
 - o 39% of those aware of application forms have not yet obtained them, mostly because they have not needed them and because they are of the opinion that it offers no particular advantage;
 - o 25% of those aware of government e-services have never used them; here the difference between being aware of e-personal income tax and actually using it is as much as 64%, with job searching at the Employment Service of Slovenia it is 50%, with obtaining a birth/marriage/death certificate 36%, obtaining an European Health Insurance Card 29%, searching through the COBISS catalogue 28%, obtaining a Criminal Records certificate of non-conviction 13% and access to or obtainment of an extract from the Land Register 3%. The main reasons for the non-use are: have not needed to, I prefer conventional ways of arranging business, I am not interested, I have not been able to find the service, I do not have a digital certificate and others do the service for me.

3.1.4 Satisfaction with e-government

The surveyed users of particular e-government possibilities are partly satisfied with them. They are least satisfied with the communication with public servants by e-mail, followed by information and downloadable application forms, while they are most satisfied with government e-services. On the other hand, the general satisfaction level and the level of trust in e-government are substantially lower, although 66% of current users will continue to use e-government in the future.

- The users are least satisfied with the communication with public servants by e-mail, especially as regards the time it takes to receive a response (3,7), while the usefulness of the responses themselves is not deemed much better (3,9).
- On average, the provided information is deemed less than satisfactory as well the users have trouble especially with the incompleteness of information (3,8) and difficulties of accessing (3,8), while the usefulness of the information is rated somewhat better (4,0).
- On the other hand, the access to application forms is considered much better than the access to information (4.2).
- On average, the users are most satisfied with electronic government services (4,3), where the ease of use (4,4) and the ease of access to the e-service (4,2) were rated highest, while the worst mark was given to completeness of the service (4,2) and the protection of privacy (4,2).
- When compared with the level of satisfaction regarding the different criteria, the level of general satisfaction with e-government receives a lower mark (3,7), but is still relatively good in comparison with the mark given for satisfaction with 'conventional' administration (3,1).
- The trust in e-government among e-government users is rated low (3,5), and even lower among those non-users of e-government, who otherwise use the internet (3,2).
- 66% of the current users of e-government will definitely continue to use it in the future, while e-services will continue to be used in the future by almost 93% of its current users.

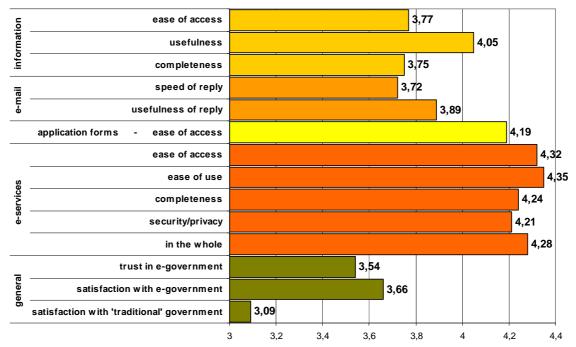


Figure 9: Satisfaction with information (n=210), e-mail communication with public servants (n=83), application forms (n=159), government e-services (n=355), trust in e-government (n=421), satisfaction with e-government as a whole (n=417) and satisfaction with traditional government (n=421) among citizens surveyed

3.1.5 Interest in e-government among internet users

Both among internet users who are not aware of the particular possibilities offered through e-government as well as among internet users who are aware of these possibilities but have not yet used them, the interest is greatest in using government e-services.

- Among internet users and those unaware of the particular possibilities offered through e-government:
 - o 11% of those who do not know that public administration publishes different sorts of information online express a great interest in this information, while 55% are not interested in this information at all.
 - o 15% of those who are unaware of the possibility of communicating with public servants by e-mail express a great interest in this possibility, while 42% are not interested at all.
 - o 31% of those who are unaware that they can obtain different application forms online express a great interest in these forms, while 34% are not interested at all.
 - o 37% of those who are unaware that they can make use of certain government services online express a great interest in these services, while 21% are not at all interested; here the interest is greatest for obtaining information from the Land Register (45% would very likely obtain it), followed by job searching (74% would very likely search for it), obtaining a European Health Insurance Card or Convention Certificate (69% would very likely obtain it), obtaining a birth/marriage/death certificate (63% would very likely obtain it), obtaining a Criminal Records certificate of non-conviction (59% would very likely obtain it), and searching through the COBISS catalogue (55% would very likely search through it), while the least interest was expressed in personal name changes (45% would very likely do it via the internet) and submitting personal income tax statements (42% would very likely submit it via the internet);
 - among the reasons for non-use those unaware of the particular possibilities offered through egovernment state that they do not need it, that they prefer conventional ways of conducting their business with the administration and that there is no particular advantage to do it, while the reason with e-services is often also distrust.
- Among internet users, who are aware of the particular possibilities offered through e-government, but <u>do not</u> use them:
 - o 11% of those who have never used the internet to obtain information about public administration express a great interest in this information, while 42% are not at all interested;
 - o 21% of those who have never used e-mail to communicate with public servants express a great interest in doing so, while 32% are not at all interested;
 - o 32% of those who have never used the internet to obtain application forms express a great interest in this possibility, while 21% are not at all interested;
 - o 92% of internet users who are aware of certain e-services, but have not yet used them, would be very interested in at least one of them, while 68% would not be at all interested in at least one of the e-services; here the interest is greatest for the access to or obtaining an extract from the Land Register (53% are very interested), followed by obtaining a birth/marriage/death certificate (47% are very interested), job searching (45% are very interested), obtaining a European Health Insurance Card or Convention Certificate (39% are very interested), e-personal income tax (34% are very interested) and obtaining a Criminal Records certificate of non-conviction (27% are very interested), while the least interest was expressed in searching through the COBISS catalogue (18% are very interested).
- Among services that did not yet exist at the time of the survey, the greatest interest (if they should need the service) was expressed in renewal motor vehicle registration (73% very interested), followed by making appointments with doctors (72%), exercising the right to child benefits (72%), enrolment into institutions of higher education (72%), obtaining a scholarship for higher education (70%), obtaining unemployment benefits (69%), exercising the right to reduced payments for preschool (67%), registering/deregistering of permanent residence (65%) and obtaining a building permit (58%). Among the reasons for potential non-use of e-services we find in the first place the fact that the interviewees prefer conventional ways of conducting their business with the administration, with as a distant second reason the distrust toward e-government.

3.1.6 Opinions regarding the future developmet of e-government

Users of e-government find the improvement in security/privacy to be the most important aspect in the further development of e-government, while indicating that they would be encouraged to use e-government more frequently if the procedures were faster compared to the conventional ones.

- For existing users of e-government the most important aspect of future development of e-government is:
 - o greater security/privacy (4,6), followed by:
 - \circ the introduction of the single website for entire e-government supply (4,5),
 - o the simplification of administrative procedures (4,5) and e-services (4,5), whereas the following are somewhat less important:
 - expanding the supply of e-government (4,4),
 - o the introduction of a services based on life events (4,3), and
 - the introduction of access to e-government in public places (4,2).
- For existing users of e-government the most important encouraging factors leading toward greater use of e-government is:
 - o faster procedures compared to conventional ones (4,6), followed by:
 - o the possibility of personal assistance at any point regarding the use of e-service (4,6) and
 - o simpler use and more complete offer of e-services (4,6), while the following are somewhat less important:
 - o greater security/privacy of data transfer (4,5), and
 - o better awareness of e-government possibilities (4,5), and the least important encouraging factor are
 - o lower fees and other financial stimulants (4,1).

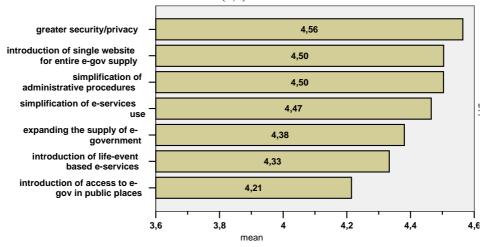


Figure 10: Importance of particular factors for future development of e-government among citizens surveyed, which use e-government (n=421)

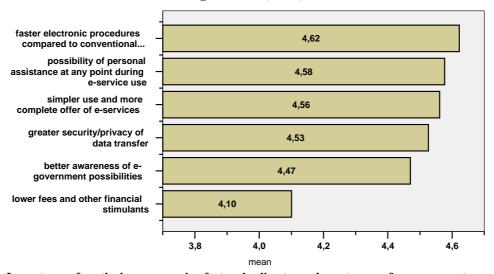


Figure 11: Importance of particular encouraging factors leading toward greater use of e-government among citizens surveyed, which use e-government (n=421)

3.2 Citizens as visitors of administrative units and municipal offices

3.2.1 Assessment of current visits at administrative units and municipal offices

14% of visitors to administrative units and 18% of visitors to municipal offices have expressed a certain level of dissatisfaction with the administrative body in question. The majority of the interviewees managed to take care of their intended business during the visit in question, but nevertheless whish for a faster way of resolving cases.

- About one tenth of the interviewees did not know immediately which body to turn to regarding the situation, which was the reason for their visit to the administrative unit or municipal office.
- More then a tenth of the interviewees in the case of administrative units and a fifth of the interviewees in the case of municipal offices had turned to the administrative body 3 or more times.
- The average time it takes to resolve the case in question is 18 days for the administrative units and 45 for the municipalities, where there was almost a tenth in the case of administrative units and a twentieth in the case of municipal offices that had been trying to get their case resolved for more than a year.
- The majority of the interviewees considered their visit successful (85% of administrative unit visitors and 79% of municipal office visitors). The rest claimed that the reason for their unsuccessful visit was the lengthy procedure, that they did not have with them all the necessary documents and that they had turned to the wrong body, while the visitors of municipal offices also complained about the absence of the employees responsible for dealing with their case.
- Both groups of interviewees wish for faster case handling, especially the visitors to the administrative units, where the difference between the desired time it would take to get a case resolved and the actual time it takes to get it resolved is as much as 15 days (at municipal offices only 2 days).
- A good tenth of the administrative unit visitors and a little less than a fifth of the visitors to municipal offices has contacted other administrative bodies in addition to the administrative unit or municipality to get their case resolved, usually in person (63% and 81% respectively).

Only 7% of the visitors to administrative units and 9% of the visitors to municipal offices visited websites of one of the bodies during the processing of their case. The predominating explanation for non-use of this possibility is unawareness and disinterest.

- The outlook for the future is no better, since approximately half of current non-users have expressed a total disinterest for this possibility. In other words, 24% of interviewed visitors to administrative units are very interested in using e-government websites when conducting their business, while there are only 16% of those who think this way among the visitors to municipal offices.
- Those who have taken advantage of this possibility have usually tried to take care of their business via the national e-government gateway or administrative units gateway (62% and 29% respectively) and websites of municipalities (14% and 30% respectively), but evidently they were unsuccessful, since they ended up at the administrative unit or municipal office. This is confirmed by answers that suggest that a large majority only used these websites to find information, which may have been relatively useful, but were nevertheless not easily accessible and very incomplete.

3.2.2 National gateway to e-government and the gateway to administrative units vs. the websites of municipalities

The national web-based gateway to e-government (including the gateway to administrative units) is known to only 26% of the visitors to administrative units. From those the gateway was used by 60%, that is only 16% of all interviewees.

The websites of the municipalities are known to approximately 58% of the visitors to municipal offices, but used by only 25% of all interviewees.

- The most common reasons for the non-use of the national gateway and the municipality websites are twofold: the non-use and unawareness of the gateway and municipality websites. Those who use the internet and are aware of the gateway usually state that they have not needed it (which is evidently untrue, since they needed to be in contact with the administration and showed up during time of the survey at the administrative unit). A similar opinion is held by those, who use the internet and are aware of the municipality websites, since they often answer that they rather use conventional way of taking care of their business, that they do not need this and that they are not interested in this.
- Both those who are and those who are not aware have expressed a relatively minor interest in future use, even
 when they do otherwise use the internet. It is evident that these interviewees prefer conventional business
 methods
- Usually the interviewees use both gateways as well as the municipality websites to find information (81% and 85% respectively), they look to a considerably lesser for e-mail addresses of public servants (21% and 8% respectively) and application forms (21% and 19% respectively), access to official databases and e-services are used even less.

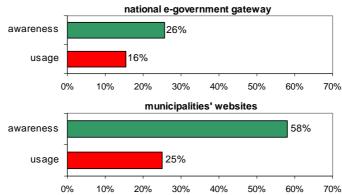
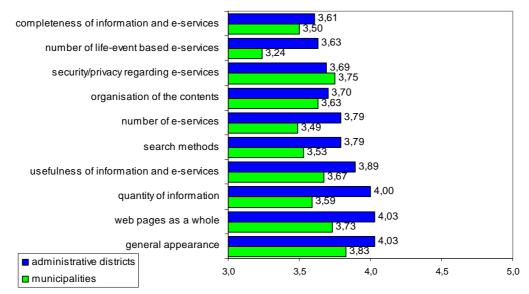


Figure 12: Awareness and use of national e-government gateway among citizens surveyed in administrative districts (n=284) and municipalities' websites among citizens surveyed in municipalities (n=851)

Both users of the national gateway to e-government as well as users of municipality websites are not too satisfied with them. However, the visitors to administrative units are more satisfied with both gateways than with e-government as a whole, while visitors to the municipal offices are more satisfied with the municipality websites than with e-government as a whole.

- The national gateway users are most satisfied with its appearance (4,0) and the quantity of information (4,0), somewhat less with the usefulness of the information (3,9) and even less so with their completeness (3,6). On the other hand, the users of the gateway are more satisfied with the usefulness of the e-services at the gateway (3,9), less so with their number (3,8), even less so with the privacy protection in using them (3,7), and least of all with their completeness (3,6) which is also evident from the low level of satisfaction with the quantity of life events at the gateway (3,6). Besides this the search methods through the gateway (3,8) as well as the organisation of the gateway contents (3,7) are not rated highly.
- The users of municipality websites are most satisfied with their appearance (3,8) and the privacy protection during the use of services (3,8), and considerably less with the quantity of information (3,6) than with their usefulness (3,7), and least of all with the completeness of the information (3,5). On the other hand the users of municipality websites are more satisfied with the usefulness of e-services (3,7) than with their number (3,6) and completeness (3,5), which is also reflected in the very low rate of satisfaction with the number of life events (3,2). The same goes for search methods (3,5) and the organisation of contents (3,6), which are not rated highly.

- The visitors of administrative units are more satisfied with both gateways (4,0) than with e-government as a whole (3,8), and even less so with the 'conventional' administration (3,8). On the other hand the visitors of municipal offices rate their general satisfaction with e-government (3,8) higher than their satisfaction with municipality websites (3,7) and also higher than their satisfaction with the 'conventional' administration.
- Within both groups the trust in e-government was at a relatively low level (3,7).
- On the other hand, a large majority of the users (85% and 76% respectively) is of the opinion that they will continue to use the gateway and the municipality websites in the future.



3.2.3 Opinions regarding the future development of e-government

According to the survey the implementation of services based on life events, i.e. with single-step solutions, is regarded by the interviewees in addition to the public administration e-government security, as the most important factor in e-government's future development.

Survey participants would use the e-government more often if the electronic procedures were faster than the conventional ones.

• According to the interviewees the introduction services based on life events, i.e. with single-step solutions, is regarded in addition to e-government security, as the most significant factor in its future development (4.5 or 4.5). Among the more important factors are also the simplifying of administrative procedures within the public administration bodies (4.4) and the introduction of the single website for entire e-government supply (4.4 or. 4.3). Less important however are the simplifying the use of e-services (4.2), expanding the supply of e-government (4.2 or 4.0) and the introduction of access to e-government in public places (4.1 or 4.2).

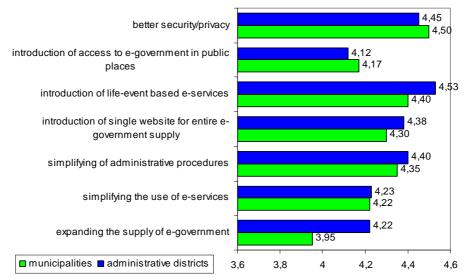


Figure 14: Importance of particular factors for future development of e-government among interviewed visitors of administrative districts (n=166) and among interviewed visitors of municipalities (from bottom to top: n=416,824,416,824,414)

• The interviewees claim they would use the e-government in a larger extent, if the electronic procedures were faster than conventional ones (4.6 or 4.4), if they had a possibility at all times to have personal assistance during the use of e-services (4.4), if the security/privacy of data transfer were higher (4.3 or 4.4) and if the use of e-services were easier and the offer more complete (4.3). These factors represent far greater incentives than lower fees or other financial benefits (4.2 or 4.1) or better awareness (4.2).

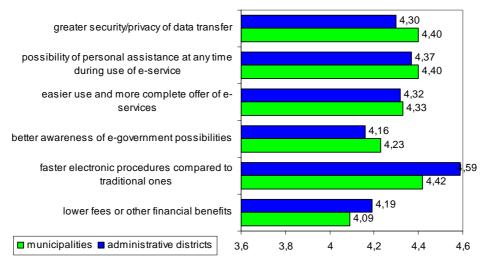


Figure 15: Importance of particular encouraging factors leading toward greater use of e-government among interviewed visitors of administrative districts (from bottom to top: n=166,166,165,166,166) and among interviewed visitors of municipalities (from bottom to top: n=415,415,415,415,414,413)

3.3 Companies

3.3.1 E-government use

Although the percentage of companies surveyed using at least one of the government e-services is relatively high, even higher than the use of e-banking and e-business with business partners, the range of services used is in fact not very wide. Most common services are electronic data transmitting to the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) and transmitting of tax return statements to the Tax Administration of the Republic of Slovenia (DURS).

- A total of 75% of sole proprietors and micro enterprises, 92% of small enterprises, 100% of medium sized and large companies as well as 96% of public sector organizations use at least one of the government e-services, of these digital certificates in dealing with public administration are used by 41% of sole proprietors and micro enterprises, 43% of small enterprises, 51% of medium sized and large companies and 52% of public sector organizations.
- Only 19% of sole proprietors and micro enterprises, 43% of small enterprises, 55% of medium sized and large companies and 60% of public sector organizations already used three or more government e-services.
- Most frequently used e-services are:
 - Transmitting data to AJPES (used by 46% of sole proprietors and micro enterprises, 66% of small enterprises, 81% of medium sized and large companies as well as 83% of public sector organizations);
 - Transmitting tax return statements to the Tax Administration (used by 32% of sole proprietors and micro enterprises, 57% of small enterprises, 78% of medium sized and large companies as well as 61% of public sector organizations);
 - O Access to electronic public records or databases (used by 42% of sole proprietors and micro enterprises, 41% of small enterprises, 43% of medium sized and large companies as well as 48% of public sector organizations), whereas the sole proprietors and micro enterprises most frequently use the Land Register services, and the other groups of companies the Register Of Companies services;
 - Job searching services of The Employment Service of Slovenia (used by 11% of sole proprietors and micro enterprises, 22% of small enterprises, 30% of medium sized and large companies as well as 27% of public sector organizations);
 - O Participating in e-public procurement (used by 12% of sole proprietors and micro enterprises, 21% of small enterprises, 25% of medium sized and large companies as well as 43% of public sector organizations);
 - o 4% of sole proprietors and micro enterprises, 7% of small enterprises, 9% of medium sized and large companies as well as 16% of public sector organizations use other additional government e-services.

3.3.2 Reasons for the non-use of e-government

Companies surveyed most often refrain from using individual government e-services as they believe that certain services are unnecessary, as they either prefer to carry them out in conventional manner, or are either unfamiliar with the service, or think that the service is of no use for the company, as well as in cases of data transmitting to the Tax Administration of the Republic of Slovenia (DURS) and the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) also because of the performance of services by outside parties.

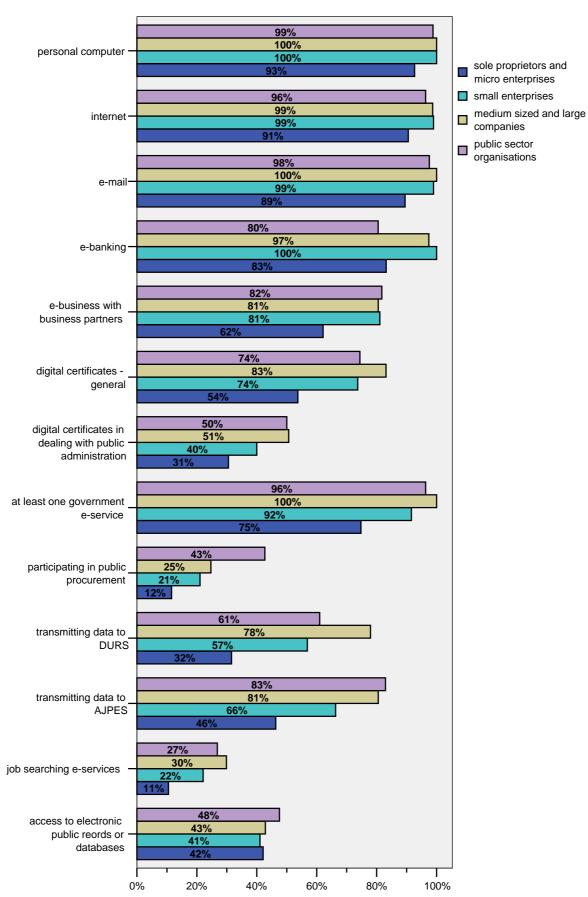


Figure 16: Use of basic information technologies and e-business with business partners and use of government e-services among companies surveyed (n=95,95,77,82)

3.3.3 Satisfaction with e-government

Companies surveyed expressed relative satisfaction with e-government; however, there is substantial room for improvement, as the satisfaction rating in no place exceeds the grade 4 (satisfied), all the more so as the satisfaction grades are somewhat lower than the satisfaction with business to business electronic transactions.

- Most satisfied with e-government as a whole are public sector organizations (4.0), followed by sole proprietors and micro enterprises (3.9) and further on by medium sized and large companies (3.9), with small enterprises as the least satisfied (3.8).
- The trust in e-government is highest by the public sector organizations (4.1), followed by medium sized and large companies (4.0), whereas sole proprietors, micro and small enterprises trust in it least (3,9).
- Among the five rated services the companies are most satisfied with services of data transmitting to the Agency of the Republic of Slovenia for Public Legal Records and Related Services AJPES (4.1-4.3), followed by transmitting tax statements to the Tax Administration (DURS) (3.9-4.4), access to electronic public records or databases (3.8-4.1) and job searching services of the Employment Service of Slovenia (3.6-4.1). The service rated worst by all groups of companies is the participation in public procurement (3.2-3.7).

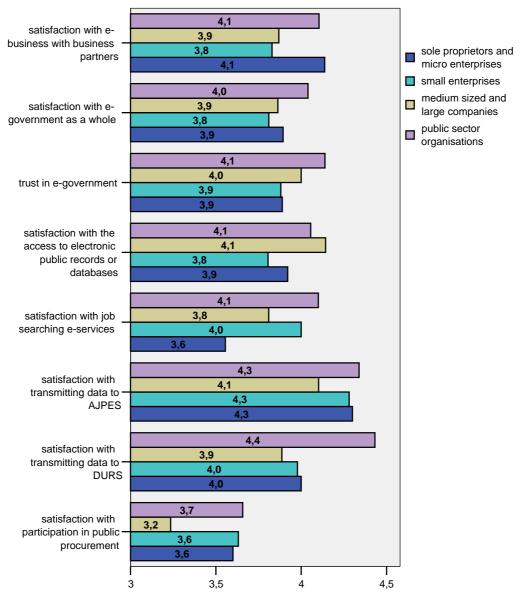


Figure 17: Satisfaction and trust in e-government and satisfaction with some government e-services among companies surveyed (from top to bottom: n=71,88,77,79; n=71,87,77,79; n=40,37,30,38; n=10,21,23,22; n=44,64,62,68; n=30,54,60,50; n=11,20,19,35; n=59,77,62,67)

The companies surveyed believe that e-government information and services are too dispersed and should be rearranged in groups based on individual business events such as employing a worker or establishing a company.

- Through rating individual statements, the companies also expressed their level of agreement with the following:
 - o e-government information and services are too dispersed, and should therefore be rearranged into groups of business events (level of agreement 3.8-3.9);
 - o possibilities offered by the e-government are not well known enough among the companies (3.4-3.8);
 - o the use of e-government services has only partially simplified and shortened procedures with public administration bodies (3.4-3.8);
 - the majority of public sector organizations believe that e-government services failed to decrease paper consumption (2.8), other companies however claim the consumption did decrease somewhat (3,1-3,7).
 - o small, medium sized and large companies largely believe that the e-government services are difficult to use (3.1), while on the other hand the sole proprietors, micro enterprises and public sector organizations regard them as more or less easy to use (2.9-3.0);
 - e-government information and services only partially fulfil the companies' needs (2.7-2.9).

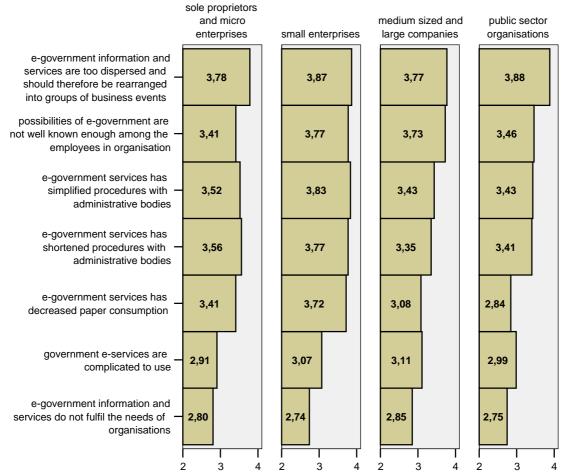


Figure 18: Levels of agreement with particular statements among companies surveyed, which use government e-services – panel view (n=71,88,77,79)

3.3.4 Interest in e-government

Only a smaller part of companies surveyed plans to broaden the use of electronic government services, most of them by using the eTaxes services.

- 19% of sole proprietors and micro enterprises, 19% of small enterprises, 14% of medium sized and large companies as well as 26% of public sector organizations intend to use the new electronic government services in the following twelve months, emphasizing particularly the eTaxes services.
- All groups of companies expressed a strong interest to use tax related services and services offering access to electronic public records or databases.

3.3.5 Opinions regarding the future development of e-government

According to companies surveyed the prevalent factor for the e-government's future development is simplifying administrative procedures in the back-offices. In addition to this the companies surveyed would use the e-government more often if electronic procedures were faster in comparison with the conventional ones.

- According to companies surveyed, in order to ensure the future development of e-government the state must provide the following:
 - o simplify administrative procedures in the back-offices (4.5 4.7),
 - o offer a single website for entire e-government supply (4.5 4.6), and
 - o ensure better security in public administration electronic transactions (4.4 4.7); whereas somewhat less important are the following factors:
 - o simplifying the use of government e-services (4.3 4.5),
 - o implementation of business-event based e-services, i.e. one-step solutions (4.3 4.4),
 - o simplification of electronic data interchange with public administration bodies (4.1 4.3) and
 - o extending the scope of e-government services offered (4.1 4.3),
 - o however implementation of e-government access in public places is of lesser importance (3.6 4.2).
- According to companies surveyed, the most important stimulating factors for using e-government are:
 - faster electronic procedures in comparison to conventional ones (4.6 4.7), followed by:
 - o the possibility of personal assistance at all times during use of e-government services (4.5 4.6),
 - o easier use and a more complete offer of e-government services (4.4 4.7),
 - o better security/privacy of data transfer (4.3 4.6) and
 - o better awareness (4.3 4.5); however a less important factor are:
 - o lower fees for e-services and other financial benefits (3.7 4.2) where this factor plays the least significant role with public sector organizations, and the most significant one with sole proprietors and micro enterprises.

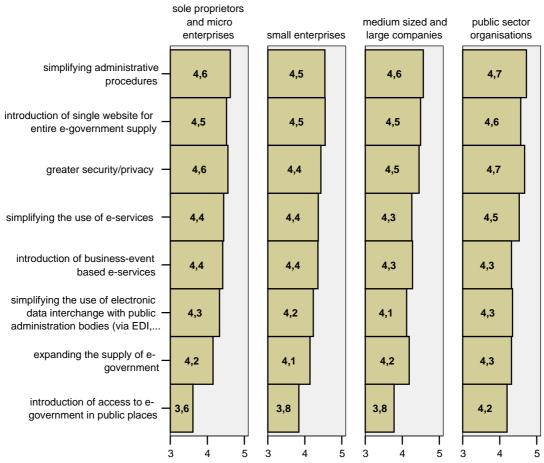


Figure 19: Importance of particular factors for future development of e-government among companies surveyed, which use computers – panel view (n=88,95,77,82)

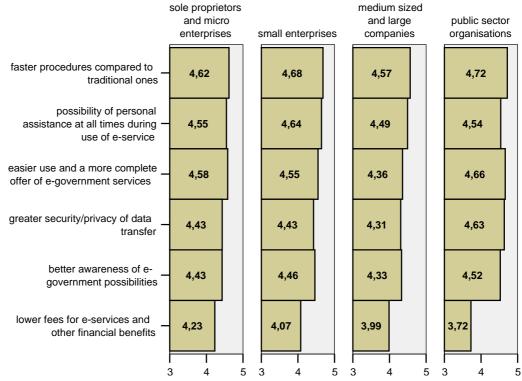


Figure 20: Importance of particular encouraging factors leading toward greater use of e-government among companies surveyed, which use computers – panel view (n=88,95,77,82)

3.4 Public servants

3.4.1 Use and satisfaction with information technologies

All public servants participating in the survey use computers and e-mail in their daily work, while a total of 95% of the public servants surveyed also use the internet. Basic information tools (such as MS Office, etc) are used by a total of 97%, while 77% of public servants surveyed use more specialized applications (such as document management system, accounting systems, etc). Only 26% of public servants surveyed use a digital certificate. A total of 12% of public servants surveyed are unaware of the national e-government gateway, while 19% have not yet used it.

- The largest number of public servants surveyed unfamiliar with the gateway come from the large municipalities (19%), with the lowest number coming from the administrative units (2%).
- A total of 9% of public servants surveyed use the gateway daily, 36% use it weekly, 20% monthly, while the rest use it rarely or hardly ever.
- 56% of public servants surveyed unfamiliar with the e-government gateway expressed little interest for its use, while a total of 38% expressed significant interest.
- Public servants surveyed are relatively satisfied with the hardware and software equipment at their workplace (3.9); with the employees of large municipalities least (3.7) and employees in government bodies most satisfied.
- Public servants surveyed are most satisfied with the introduction of e-business at the workplace itself (3.8), and least satisfied with its introduction to the public administration as a whole (3.6), whereas the satisfaction with implementing of e-business to public organizations received an average grade of 3.7. Employees working in large municipalities are least satisfied with introducing e-business to the workplace (3.5) as well as into organizations (3.4), whereas the employees working for the core ministries tend to be least satisfied with implementing of e-business to the public administration as a whole (3.5).
- Among proposals for changes in implementing e-business at the workplace and to organizations, the most
 common requests concern better and simpler hardware and software equipment, while as concerns the changes
 in implementing e-business to the public administration as a whole, the majority of employees propose
 unification and simplification of working procedures. A frequent proposal for change is also the need for a
 wider scope of education and training.
- Public servants surveyed show lack of trust in doing business in the public administration electronically (3.72), with the trust being lowest among employees from administrative units (3.67) and highest among employees from core ministries.

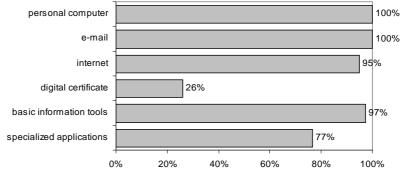


Figure 21: Use of information technologies among public servants surveyed (n=1818)

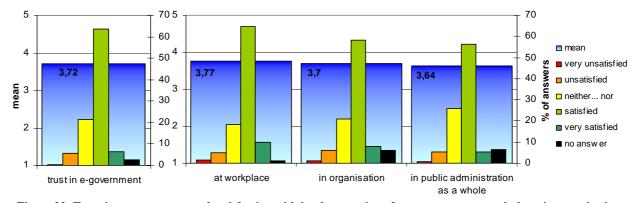


Figure 22: Trust in e-government and satisfaction with implementation of e-government at workplace, in organisation and in government as a whole among public servants surveyed (n=1818)

3.4.2 Skills necessary for e-government

Public servants surveyed are not familiar enough with the offered e-government possibilities (3.4) though they are even less familiar with e-government possibilities offered to customers outside public administration (3.2).

- They rated their own knowledge and skills in computing and informatics better (3.7), there is however ample room for improvement.
- Worst skills in computing and informatics were stated by the employees of bodies within ministries (3.6), whereas the knowledge of e-government services offered to public servants was rated worst by the employees of large municipalities (3.3), and knowledge of e-government services offered for customers outside the public administration by employees of medium sized and large municipalities (3.0).
- The lowest number of public servants surveyed obtained their IT skills during their regular education (30%), while most of them obtaining such skills through self-education (63%) and at seminars organized by their employers (45%). Within the framework of the latter, the number of persons obtaining IT skills is lowest in municipalities, whereas the number of persons obtaining skills through self-education is lowest in administrative units (43%).
- The largest number of public servants surveyed need skills in using various specialized applications and eservices (57%), knowledge of functioning and use of databases (45%) as well as knowledge of electronic spread-sheets (35%).

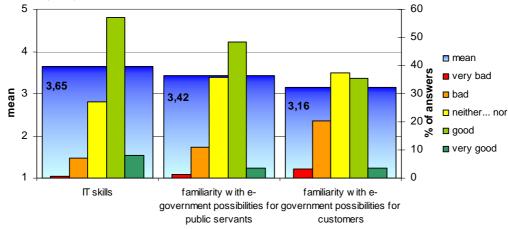


Figure 23: Levels of knowledge and skills in computing and informatics and familiarity with e-government possibilities for public servants and for customers among public servants surveyed (n=1818)

3.4.3 Impact of the e-government

As most negative changes brought about by the introduction of e-government, the public servants surveyed emphasize a larger range of tasks, heavier workload and the increasing complexity of tasks.

Only 26% of public servants surveyed regularly explain the possibilities of e-government to customers.

- The leading positive experiences are shorter task execution and better transparency of procedures, followed by better cooperation with public servants outside own organizations as well as a better quality of services for customers inside or outside of public administration. The area however allows substantial room for improvement, as average grades of none of the impacts or changes exceed a value of 4.
- Only 26% of public servants surveyed regularly explain the possibilities of e-government to customers, whereas 55% does so only occasionally. The lowest number of employees regularly informing customers comes from the municipalities (17-25%), while the number of administrative units employees doing so, could also be higher (30%).
- Public servants regard the effects of e-business use at the workplace in public sector organizations and public sector on a whole perceive as more positive than not (3.9); however the grade in general remains relatively low. The present effects of e-business use at workplace and in public sector organisations have been rated as worst by employees from medium sized municipalities (3.8), while the worst opinion regarding the effects of use of e-business in the public administration as a whole is held by employees surveyed in medium sized and large municipalities (3.8).

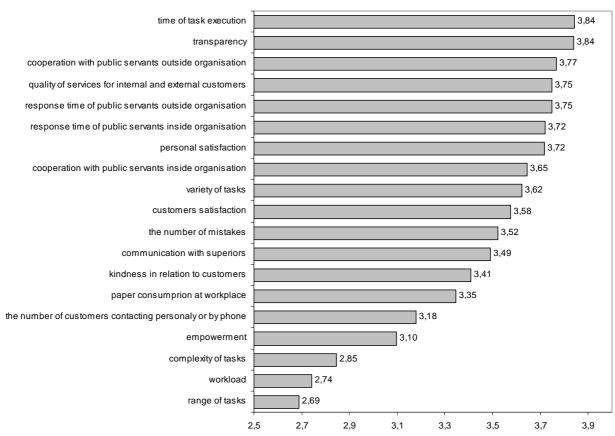


Figure 24: Levels of changes brought about by the introduction of e-government among public servants surveyed – value smaller than 3 presents worse situation and greater than 3 better (n=1818)

3.4.4 Guidelines for future development of e-government

The most important factor for future development of e-government is, according to public servants surveyed, education and training, while the largest number (48%) of public servants surveyed regards that improvement of skills presents the biggest future challenge for their organizations during development and implementation of e-government in the following five years.

- Public servants surveyed stated in their suggestions the following areas where e-business should be implemented first:
 - o implementation of information system for incoming documents and applications, thus eliminating the need to enter paper data manually into the computer system (12% of public servants surveyed);
 - o implementation of information system for tracking procedures, internal operations and communications as well as managing operations (11%);
 - o implementation of electronic data exchange, both in internal operations as well as in operations between different public sector organizations and in dealing with customers (10%)
- Of the twelve stated factors of e-government development, the public servants surveyed attached most importance to education (4.5), public administration's data sharing (4.4), introduction of joint IT solutions and cooperation of public administration bodies (4.4), as well as better security/privacy in public administration's e-business (4.4). Important factors are also: simplifying use of e-services for customers (4.3), optimization of administrative procedures (4.3), introduction of life-event based services (4.2), expanding the number of e-services for customers (4.2), simplifying use of existing applications (4.1), larger involvement of public servants during development of e-government (4.1), implementation of new applications (4.1) and a thorough reengineering of administrative procedures (4.0).

- Greatest challenges facing the public sector organizations in developing and introducing e-government in the next five years are:
 - o improving public employee skills (48%),
 - o improving data sharing among public administration bodies (43%); it is at the same time interesting to note that the ministries are the only organization type putting larger emphasis on improving internal communication than on improving body to body communication,
 - o introducing an innovating approach to organizations and inclusion of employees in improving the operating methods (35%),
 - o improving information flows inside organizations (33%), and
 - o remoulding ideas into feasible services, processes and procedures (32%).

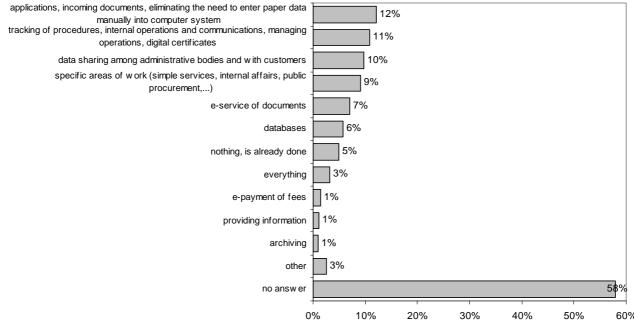


Figure 25: Areas where e-business should be implemented first among public servants surveyed (n=1818)

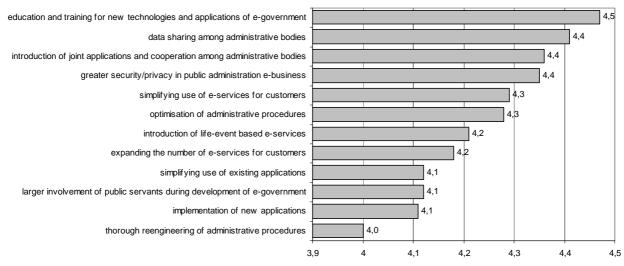


Figure 26: Importance of particular factors for future development of e-government among public servants surveyed (n=1818)

3.5 Societies

3.5.1 E-government awareness

92% of all societies surveyed are familiar with at least one of the e-government possibilities. They are most familiar with administrative information and least familiar with electronic government services. Only 42% of societies are familiar with the national e-government gateway.

- 92% of all societies surveyed (95% of societies using the internet) are familiar with at least one of the egovernment possibilities.
- 85% of societies surveyed are familiar with the possibilities of obtaining information (89% of societies using internet).
- 82% of societies surveyed are familiar with the option of downloading application forms (88% of societies using internet).
- 68% of societies surveyed are familiar with the possibility to view official e-records or databases (74% of societies using internet).
- 68% of societies surveyed are familiar with the possibility of communicating with public servants by e-mail (73% of societies using internet).
- 57% of societies surveyed are familiar with at least one government e-service (67% of societies using internet). Of the sixteen known services the most known is transmitting of annual reports to the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) (49% of societies surveyed), followed by registration of public gatherings and events (40% of societies surveyed), transmitting control data for tax return statements (32% of societies surveyed), obtaining certificates on establishment of association (25%), filing income tax statements (24%) and value added tax statements (23%), while other e-services are less well known.
- Only 42% of societies surveyed are familiar with the national e-government gateway (46% of societies using internet).

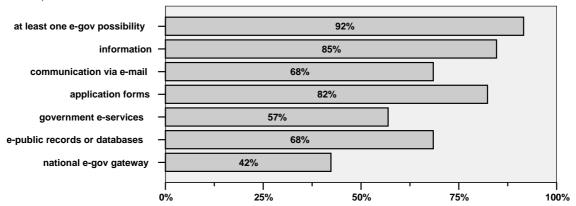


Figure 27: Awareness of particular e-government possibilities among societies surveyed (n=130)

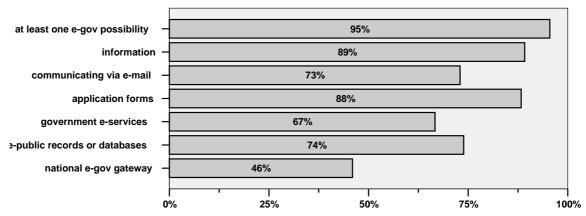


Figure 28: Awareness of particular e-government possibilities among societies surveyed, which use internet (n=111)

3.5.2 E-government use

68% of societies surveyed already used at least one of the e-government possibilities (80% of societies using internet). Most frequently used are application forms, followed by information, then by communicating with public servants by e-mail and government e-services, while the least used is the option to view official electronic records.

- 55% of societies surveyed have already used application forms (64% of societies using internet).
- 49% of societies surveyed have already used government e-services (58% of societies using internet).
- 35% of societies surveyed have already communicated with public servants by e-mail (41% of societies using internet).
- 31% of societies surveyed have already used at least one of the government e-services (36% of societies using internet). The leading among sixteen e-services already used is the service of transmitting annual reports to the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) (used by 25% of societies surveyed or 30% of societies using internet), followed by registration of public gatherings and events (13% of societies surveyed or 15% of societies using internet), filing value added tax statements (12% of societies surveyed or 14% of societies using internet) and filing income tax statements (11% of societies surveyed or 13% of societies using internet), while other e-services remain less utilized.
- 26% of societies surveyed already used internet access to view official records (31% of societies using internet).

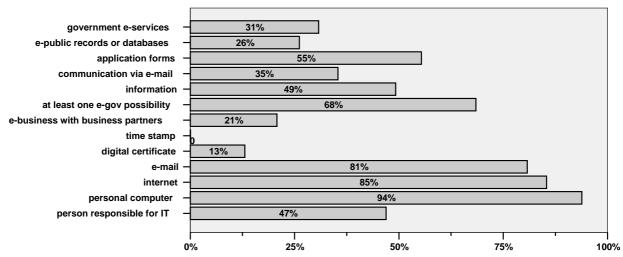


Figure 29: Use of basic information technologies and use of particular e-government possibilities among societies surveyed (n=130)

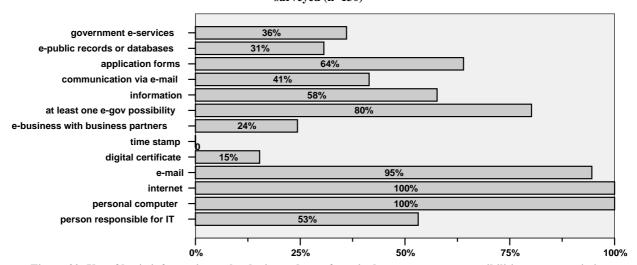


Figure 30: Use of basic information technologies and use of particular e-government possibilities among societies surveyed, which use internet (n=111)

3.5.3 Reasons for the non-use of e-government

The gap between awareness and actual use is largest with regard to the possibility of viewing official e-records and smallest with application forms. In addition to not using the internet and unawareness of e-government the reason for non-use lies particularly with the societies which rather resort to conventional means of dealing with public administration.

- 15% of societies surveyed do not use the internet in their daily work.
- 43% of societies surveyed (33% of societies using internet) are unfamiliar with government e-services, 31% of societies surveyed (27% of societies using internet) are unfamiliar with the possibility to communicate with public servants by e-mail, 31% of societies surveyed (26% of societies using internet) are unfamiliar with the possibility to view electronic public records, 18% of societies surveyed (12% of societies using internet) are unfamiliar with application forms and 15% of societies surveyed (11% of societies using internet) are unfamiliar with the possibilities to obtain administrative information.
- On the other hand, of the societies surveyed which use the internet:
 - 43% of societies familiar with the possibility to view official e-records or databases refrained from using this possibility, as there was up until present no need to do so;
 - 32% of societies familiar with communicating with public servants by e-mail, refrained from using this possibility, as until now there was no need to do so and also because they prefer the conventional types of communication;
 - o 31% of societies familiar with government e-services refrained from using them; where the gap between awareness and actual use is largest (32%) with registrations of public gatherings and events, and somewhat lower (27%) with filing annual reports to the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES). The principal reasons of non-use are: the possibility is unnecessary, preference to conventional communicating means, lack of any interest for the stated possibilities;
 - o 31% of societies familiar with information refrained from obtaining it as there was no need to do so and because they prefer conventional types of gathering information;
 - o 24% of societies familiar with application forms refrained from obtaining them as there was no need to do so and because they prefer conventional types of dealing with public administration.

3.5.4 Satisfaction with e-government

Societies surveyed are partially satisfied with individual e-government possibilities, particularly with government e-services and application forms, but are however substantially less satisfied with other possibilities. Additionally a general level of satisfaction and trust in e-government remain relatively low.

- The societies surveyed are most satisfied with e-services and application forms with the average grades for criteria from around 4.1 to 4.2.
- The societies surveyed are far less satisfied with information, e-records and communicating by e-mail, with the average grades for criteria of 3.5 to 3.8, with the noted exception on usefulness of information, with an average grade of 4.
- As a whole, the societies surveyed have among all e-government possibilities rated the usefulness better and ease of access and protection of privacy worse, with the completeness being the worst rated criteria.
- On the other hand the general satisfaction with e-government and trust in e-government also received relatively low grades (3.7 and 3.9 respectively), however the grade for the satisfaction with 'conventional' administration was even lower (3.4).
- 69% of societies surveyed which already used at least one of the possibilities of e-government will certainly continue to use it in the future. In addition to this 96% of current e-services users will also continue to use them in the future.

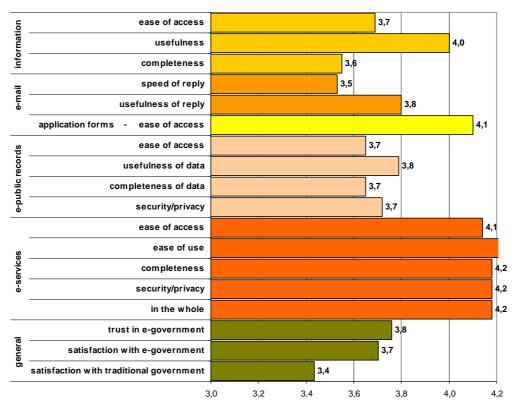


Figure 31: Satisfaction with information (n=62), e-mail communication (n=45,44), application forms (n=67), e-public records or databases (n=34,34,34,32), government e-services (n=20) and trust in e-government (n=67), satisfaction with e-government as a whole (n=68) and satisfaction with traditional government (n=83) among societies surveyed

3.5.5 Interest in e-government among internet users

Both among societies surveyed which use the internet but are not aware of individual e-government possibilities as well as among those using the internet but not also the particular possibilities of e-government, the interest is highest for performing government e-services over the internet.

- The possibility to obtain information through internet is very interesting for 9% of those unaware of and 9% of non-users, but does not interest 27% of those unaware of and 24% of non-users.
- Communicating with public servants by e-mail is very interesting for 12% of those unaware of and 13% of non-users, but does not interest 28% of those unaware of and 16% of non-users.
- Among societies unfamiliar with application forms none expressed great interest for this possibility, however among the non-users a total of 12% did. On the other hand the application forms prove uninteresting for 15% of those unaware of and 20% of non-users.
- View of official e-records or databases very interests 16% of those unaware of and 7% of non-users, but is uninteresting at all for 8% of those unaware of and 17% of non-users.
- Government services are of great interest to 33% of those unaware of, while a total of 49% of non-user are very interested in at least one of them, and while e-services prove to be uninteresting for 5% of those unaware of and a total of 83% of non-users are uninterested in at least one; among the latter the interest is highest for income tax statements, registration of gatherings and events and for filing annual reports to the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES).

3.5.6 Opinions regarding the future development of e-government

Societies surveyed believe that further e-government development relies mostly on simplification of administrative procedures, while the ease of use and completeness of the offer could do most to stimulate more frequent e-government use.

- According to societies surveyed the most important e-government development factors are the following:
 - o simplification of administrative procedures (4.5),
 - o introduction of the single website for entire e-government supply (4.4), and
 - o simplification of government e-services use (4.3); while also important factors are:
 - o better security/privacy in public administration's e-business (4.1),
 - o introduction of life-event based services (4.0), and
 - o extending the supply of e-government (4.0).
- According to the societies surveyed the most important factors attributing to a larger e-government use are:
 - o ease of use and completeness of supply (4.5),
 - o faster electronic procedures in comparison to conventional ones (4.4),
 - o possibility of personal assistance at all times during use of government e-services (4.3), and
 - o better awareness of e-government possibilities (4.3); while also important factors are:
 - o better security/privacy of data transfer (4.0), and
 - o lower fees and other financial stimulations (4.0).

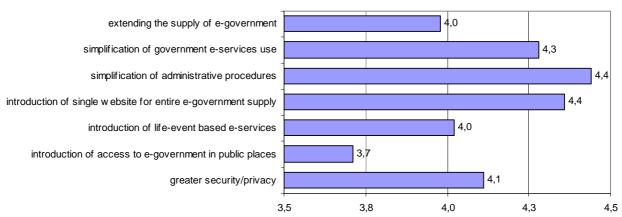


Figure 32: Importance of particular factors for future development of e-government among societies surveyed, which use internet (from top to bottom: n=81, 82, 84, 83, 81, 79, 80)

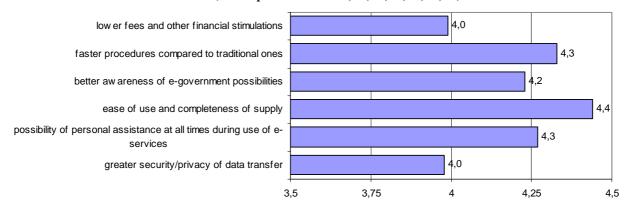


Figure 33: Importance of particular encouraging factors leading to greater use of e-government among societies surveyed, which use internet (from top to bottom: n=81, 84, 84, 84, 86, 84)