E-government from the viewpoint of statistics

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We can characterise e-government as using information and communication technologies and various information systems in public administration with the aim of optimising public administration and offering citizens and firms more professional, faster and less complicated services. A key component for development of e-government is not only an electronisation of internal affairs in public administration but also a sufficient equipping of public administration organisations with information technologies, making on-line services available to clients, an abundance of public servants capable of working with demanding information systems and a well-developed information society where individuals and enterprises have access to the Internet and use it commonly.

1. Source of data

The Czech Statistical Office (CZSO) employs three fundamental sources to monitor e-government in the Czech Republic.

1.1. ICT usage in public administration in the Czech Republic

Chief among these is the annual survey on ICT Usage in Public Administration in the Czech Republic; the pilot survey was carried out in 2003. The latest survey in regards to this issue was conducted in the first half of 2008 with respect to the reference period of 31 December 2007. This survey fully covered all state administration offices (ministries, central state administration offices, labour offices, courts, regional veterinary offices etc), regional offices and municipalities (including regional parts of Prague).

Questionnaire encompassed usage of information and communication technologies to cover needs of organization (Internet, security facilities…), web sites and services available on-line for citizens and enterprises, citizens' access to information and communication technologies arranged by public administration (public Internet access point, information kiosk…), employees with access to information and communication technologies and electronic data switch in/between state administration offices.

The survey on ICT usage by public administration doesn't arise from any European Communities Directive or any Eurostat model questionnaire. The survey is genuine activity of the Czech Statistical Office, which has emerged from needs to gain information about progress of information and communication technologies usage through the Czech public administration.

1.2. Survey of the websites of public administration

The second information source is the **survey of the websites of public administration organisations** that monitors an availability of information and on-line services on public administration websites. Thus this survey helps to capture information about development of the process of bringing public administration closer to the general public. The web survey was launched in 2003 and followed up in 2004, 2006 and 2007; the latest data are from August 2008. Web survey collects data straight from web sites. Positive approach is guaranteed by statistician who is surfing through given public administration web sites as regular citizen who is searching for specific information and services. Survey covered 25 central administration offices (ministries, Czech Statistical Office, Mapping and Cadastre, National Security Office, Energy Regulatory Office…), all 14 regional offices (including capital city Prague) and all 205 municipalities with extended competence. Database of these organizations was gathered from Portal of Public Administration.

In the survey were monitored providing of **information** (departments and office personnel where and how to solve life situations and crisis, posting important documents – office agenda, job openings…) and **services** on web sites of organisations (fulltext, blind friendly, language versions of web site, electronic registry, on-line contact, discussion, FAQ, opinion poll…). In case of municipalities with extended competence were also monitored indicators as municipality history, municipality plan of development, municipality culture, possibility of sending information to e-mail/mobile, free citywide wireless network etc. Municipalities with extended competence were also monitored from the point of availability of specific basic on-line services (personal documents, certificates as a birth certificate, wedding certificate, business license, construction permit, announcement of moving, social contributions). Their availability was assessed by degree of sophistication (**Stage 1** – Information: on-line information about public services, **Stage 2** – One-way interaction: downloading of forms, **Stage 3** – Two-way interaction: processing of forms, **Stage 4** – Transaction: full electronic case handling).

1.3. ICT usage by households, individuals and enterprises

The third information source from the area of ICT and public administration shows us a degree to which the services offered by public administration via ICT are used by citizens and firms. This information originates from the other surveys of the CZSO, namely from the survey on the use of the ICT in households and by individuals and the survey on the use of ICT in the enterprise sector.

Since 2003, the Czech Statistical Office has carried out the annual survey on „**Usage of Information and Communication Technologies by Households and Individuals**". In 2008, the survey was held in the 2nd quarter of 2008. The survey sample covered 10 000 individuals, aged 16 years or older. In the Czech Republic, this survey is conducted as an annex to the Labour Force Survey (LFS) conducted by the CZSO in the form of a personal interview using a PC (Computer Assisted Personal Interviewing – CAPI). The questionnaire included 44 questions of which 5 were pointed toward households and 39 toward individuals.

The Czech Statistical Office has carried out the annual survey on „**Usage of Information and Communication Technologies and E-commerce in Business Sector**" since 2003. The pilot survey was launched in year 2002. As a survey technique, mail survey, which was also possible to fill out and submit electronically, was used.

Since 2006, both surveys have been conducted according to Regulation (EC) No 808/2004 of the European Parliament and of the Council concerning statistics on the information society, thereby allowing for the production of data comparable with individual EU states, Iceland and Norway.

The questionnaires also covered usage of Internet in relation to public administration. The main focus was communication with public authorities by email, obtaining information from public authority web sites, downloading forms posted on public authorities web sites, filling out and sending of on-line forms to public authorities or full case handling. Electronic tender system was monitored as well in case of enterprises.

2. Results of surveys

The following paragraphs bring an overview about equipping of public administration offices with information technologies, about use of the websites of public administration organisations for communication with their clients as well as about making information technology available to citizens.

2.1. ICT usage in public administration in the Czech Republic

According to the latest survey, the category of public administration organisations best-equipped with ICT are regional offices which in the majority of cases have an equipment level of 100 % (or at least approaching 100 %) as far as the selected technologies are concerned. Very high levels are also reached by the State administrations offices. It will now be important for them to maintain the equipment level they have reached and to continue to improve the quality of the services offered. Good results in ICT equipment levels and the provision of services to citizens are attained by the largest municipalities, a probability, that a municipality will be equipped with the given technology or

that it provides the given service, is declining along with the size of the municipality. However, the most significant year-on-year value increases were recorded in the case of the smallest municipalities. In spite of this fact, these municipalities' level of equipping with information technologies still have room for improvement.

Graph 1 Broadband in public administration
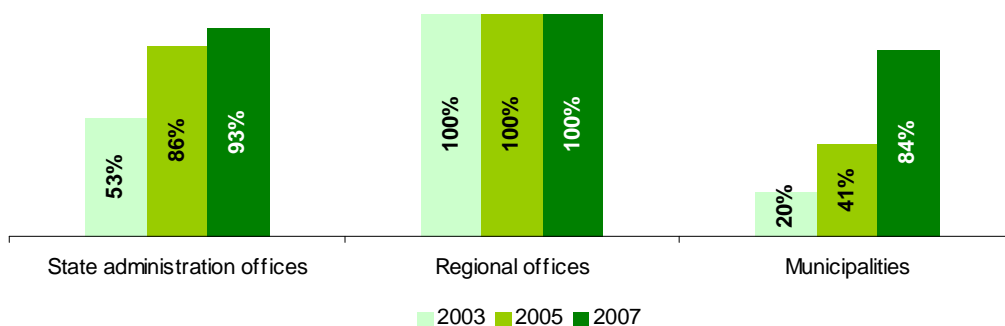
Source: Czech Statistical Office, Survey on ICT Usage in Public Administration

Websites serving as an intermediary between a citizen/enterprise and a public administration organisation is now absolutely taken for granted as far as public administration bodies are concerned. They should be used as a forum for presenting important **information** and for providing **services**, so as to eliminate (as far as possible) a citizen's need to visit the office directly. On 31 December 2007, 88 % of the state administration offices, 100 % of the regional offices and 88 % of all municipalities had their own website. From the results is clear that information pertaining to life situations are now a common part of public administrations' websites. A form can be downloaded from 60 % of the states' administration offices and from 39 % of municipalities' websites. As is shown on the attached graph, a smaller percentage of organisations offer a form for on-line completion or the possibility for full electronic filing via their websites.

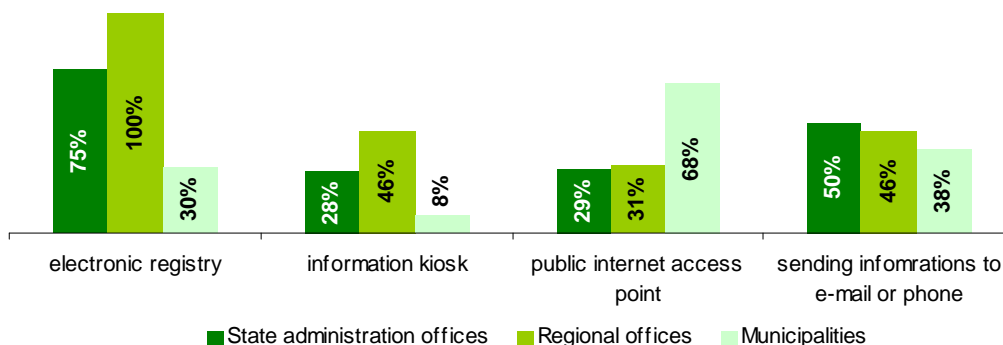**Graph 2 On-line services on public administration web sites, 31.12.2007**
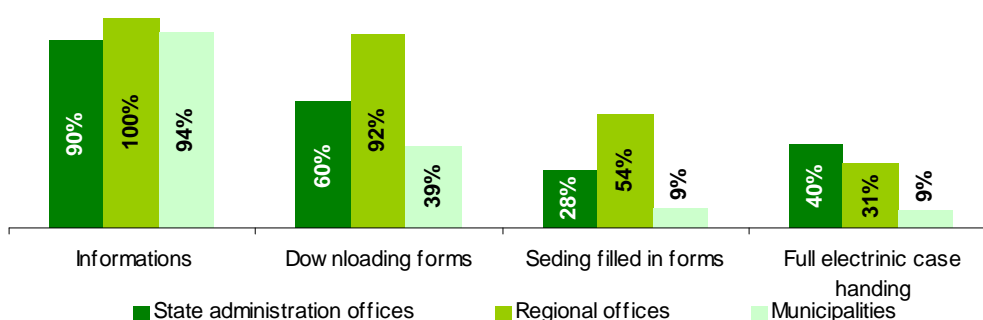
Source: Czech Statistical Office, Survey on ICT Usage in Public Administration

An ever greater number of organisations provide a public **access to information**, e.g. via an **information kiosk** *(a terminal located in a public place, providing non-stop transmission of information to the actual citizen. From the information kiosk it is possible to obtain information concerning public administration, transport, culture, news, navigation information, etc),* access to the **Internet at the organisation's premises** or also possibility of sending important information to an **e-mail or mobile telephone**. It is becoming far more common lately for free wireless Internet to be offered within a municipality's territory *(**WIFI -** access to the Internet via WiFi technology, within a municipality's territory. It is intended primarily for sending e-mails and viewing websites, with access to select websites is blocked. It is also not possible to download music and films. The connection speed*

depends on the number of users connected at any point in time, being a minimum of 64 kbps.). This possibility is offered to citizens by 11 % of all municipalities. This percentage is higher in the case of municipalities with 20,000 or more citizens (20 %). In municipalities belonging to smaller size categories their share of offering this service is almost comparable (at around 10 %).

Graph 3 Access to information technology in public administration offices, 31.12.2007


	electronic registry	information kiosk	public internet access point	sending infomrations to e-mail or phone
State administration offices	75%	28%	29%	50%
Regional offices	100%	46%	31%	46%
Municipalities	30%	8%	68%	38%

Source: Czech Statistical Office, Survey on ICT Usage in Public Administration

2.2. Websites of public administration

The results of the **web survey** show that public administration offices fully realise the advantages of using information and communication technologies. These days public administration offices commonly provide information on their websites about the activities of the given public administration office, its proceedings, budgets, and decisions. The provision of information about the staff and an e-mail contact and discussion forums allows for feedback to be received on all of a public administration office's statements and decisions. The websites of large institutions tend to take a form of portals, offering a large quantity of information and services for specific user groups. The websites also serve as an information node for social and cultural happenings in the municipalities or regions.

One of the indicators monitored is also website accessibility for users with serious vision impairment, so-called **blind friendly** versions of websites. During the course of one year there was a great increase in the number of organisations who adapted their websites to the needs of vision-impaired citizens, thereby enabling them simpler access to important information in the public administration area. In 2007, 8 % of central state administration organisations had blind friendly websites, compared to a mere 4 % of municipalities with extended competence. A year later, in August 2008, this had increased to 20 % of central state administration organisations and 26 % of municipalities with extended competence.
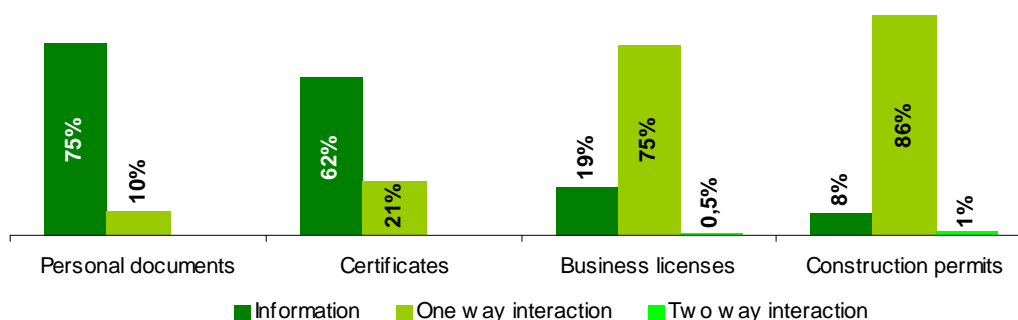
Graph 4 Public administration offices with blind friendly web sites
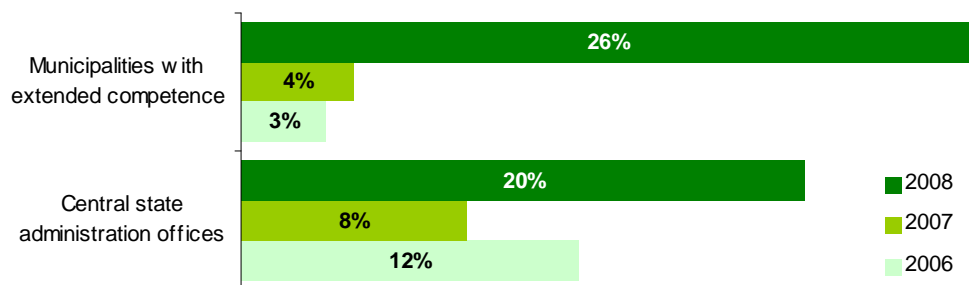
Source: Czech Statistical Office, Survey of the websites of public administration organisations

Very important indicators, monitored via a survey of websites, are **on-line services** and their **degree of interaction** that is offered by offices of municipalities with extended competence. This includes, for example, personal or registry office documents, trade licences or building permits. For example, the most frequently offered service on-line in 2008 was the possibility of obtaining a **building permit**. Information about this service was provided by 17 from a total of 205 offices (8 %). Moreover, 176 offices (86 %) offer forms for downloading. A form for on-line completion for building permits is provided by three municipalities with extended competence and one municipality on its website allows for complete electronic filings of building permit applications. The survey conducted in August 2008 showed that in all cases there was an increase in the number of municipalities with extended competence that devoted efforts to these basic services. In addition to this, it showed that there is a shift from merely publishing information to more sophisticated degrees of interactions.

Graph 5 On-line services on web sites of municipalities with extended competence, 2008
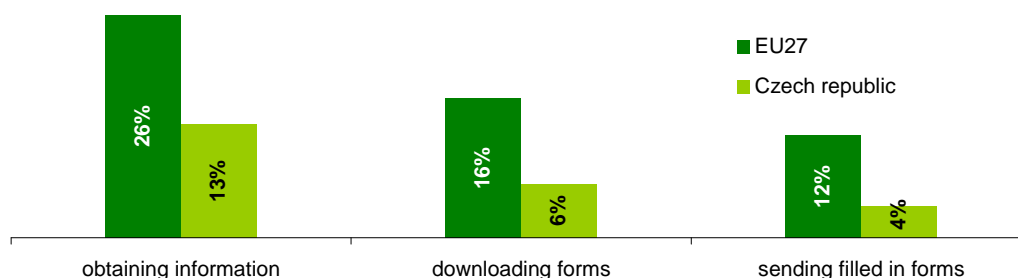

Source: Czech Statistical Office, Survey of the websites of public administration organisations

Overall, it can be stated that the survey of public administration websites in 2008 confirmed a growing importance of use of information and communication technologies in the interaction between public administration offices and citizens. The form and content of websites improves year-by-year, thus enabling citizens, entrepreneurs and firms easier access to information and services. A percentage growth was recorded in the vast majority of indicators compared to the last survey conducted in 2007.

2.3. ICT usage by households, individuals and enterprises

As shown above, public administration offices offer services to citizens and publish an ever-greater volume of information on their websites and via modern technologies, to an ever-greater degree. But of great importance, however, is the degree to which individuals use these services. According to the most recent data (2008) 18 % of all **individuals** over 16 years of age use the Internet in relation to public service in the Czech Republic, which counts for 34 % of all Internet users. The most frequent users of the Internet for this purpose are individuals aged between 25 – 54 years (around 27 % of individuals) and tertiary educated individuals (37 % of the tertiary educated population).

Graph 6 Individuals who used Internet in relation to public administration, 2008

Source: Czech Statistical Office, Survey on ICT Usage by Households and Individuals

In 2007, the Internet in relation to public administration was used by 73 % of **enterprises** with ten or more employees. The most common way of using the Internet in the Czech Republic in 2007 in relation to public administration by enterprises was communication with public authorities by e-mail (77 % enterprises with 10 or more employees). In the same year, 70 % of enterprises obtained information on public administration websites, 63 % of enterprises downloaded forms and only 35 % of enterprises sent filled in forms. Internet in relation to public administration was mostly used by large enterprises and the least by small. In 2007 used Internet in relation to public administration 94 % of enterprises with 250 or more employees but only 68 % of enterprises with 10 – 49 employees. Differences are obvious especially in sending filled in forms (78 % of large enterprises and 28 % of small enterprises).

Graph 7 Enterprises which used Internet in relation to public administration, 2008
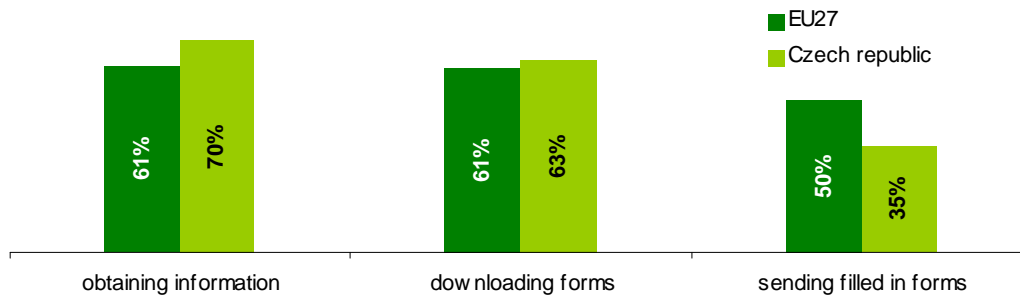
Source: Czech Statistical Office, Survey on ICT Usage by Enterprises