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Field Surveys on Low Socio-Economic Groups

WP3: Report on Findings

Deliverable 3.2

Table of Contents

<i>Executive Summary</i>	7
1 Introduction	11
2 Survey design and implementation	12
2.1 Reference population	12
2.2 Achieved samples	13
2.2.1 Austria	13
2.2.2 France	14
2.2.3 Finland	14
2.2.4 Germany	16
2.2.5 Israel	16
2.2.6 Bulgaria	17
2.2.7 Comparisons	17
2.3 Key hypotheses	19
3 Survey findings	22
3.1 Austria	22
3.1.1 Reasons for no / low use of internet	23
3.1.2 Awareness about online services among non-users	23
3.1.3 Non-user attitudes vis-à-vis the internet	25
3.1.4 Familiarity: a strong explanatory factor	26
3.1.5 Awareness vs. use	28
3.1.6 Prospects / barriers to e-government	29
3.1.7 Targets for policy	30
3.2 France	33
3.2.1 Reasons for no/low use of internet	34
3.2.2 Awareness of online services among non-users	35
3.2.3 Non-user attitudes vis-à-vis the internet	36
3.2.4 Targets for policy	36
3.3 Finland	37
3.3.1 Reasons for no / low use of internet	37
3.3.2 Awareness of commercial and e-government services	38
3.3.3 Awareness vs. use	39
3.3.4 Attitudes to internet and e-government	40
3.3.5 Barriers to e-government	42
3.3.6 Targets for policy	42
3.4 Germany	44
3.4.1 Reasons for no / low use of the internet	45
3.4.2 Awareness of commercial and e-government internet services	45
3.4.3 Awareness vs. use	46
3.4.4 Attitudes to the internet and e-government	48
3.4.5 Barriers to e-government	49
3.4.6 Targets for policy	50

3.5	Israel	51
3.5.1	Reasons for no / low use of the internet	51
3.5.2	Awareness of commercial internet and e-government services	52
3.5.3	Awareness vs. use	53
3.5.4	Attitudes to internet and e-government	55
3.5.5	Barriers to e-government	56
3.5.6	Targets for policy	56
3.6	Bulgaria	58
3.6.1	Reasons for no / low use of the internet	59
3.6.2	Awareness of commercial internet and e-government services	59
3.6.3	Awareness vs. use	60
3.6.4	Attitudes to internet and e-government	62
3.6.5	Barriers to e-government	63
3.6.6	Targets for policy	63
3.7	Synthesis	64
4	<i>Qualitative insights from the focus groups</i>	66
4.1	Austria	66
4.1.1	On lack of access	67
4.1.2	On e-government	68
4.1.3	Feedback to ELOST survey results	68
4.1.4	Recommendations	69
4.2	France	69
4.2.1	On e-government	70
4.2.2	Recommendations	71
4.3	Finland	71
4.3.1	On e-inclusion	72
4.3.2	On e-government	72
4.3.3	Recommendations	73
4.4	Germany	74
4.4.1	On e-inclusion	74
4.4.2	On e-government	74
4.4.3	Recommendations	75
4.5	Israel	75
4.5.1	On e-inclusion	75
4.5.2	On e-government	76
4.5.3	Recommendations	76
4.6	Bulgaria	76
4.7	Synthesis	77
	<i>Acknowledgements</i>	79

Executive Summary

This document reports on the findings of the research undertaken in the framework of WP3 of the ELOST project. This included a survey on the patterns of ICT use and e-Government among low socio-economic status groups in six European countries as well as a series of citizen focus groups. The survey and focus groups were organized in Austria, Germany, France, Finland, Israel and Bulgaria.

Our target sample of completed questionnaires was 250 for each country under investigation. The sample was to be gender balanced and reflect the age distribution of the reference population defined as persons living in low-income households and, further to this, in low-skill occupation or unemployed and/or of low educational level. Interviews were carried out by phone or face-to-face. In order to achieve as high representative as possible, and taking into account the difficulties involved in over-sampling lower strata populations, the sampling and fieldwork was in some countries territorially concentrated on specific regions or cities or, in the absence of a systematic sample base, organized with the help of specific social organizations.

The Austrian and French samples are national and display an over-representation of older female respondents that are not familiar with the use of the internet. The Finnish and German samples are both urban samples (Tampere and Berlin respectively) and, therefore, display a higher share of unemployed respondents. The Israeli sample is more balanced in terms of age, activity status and education and is dominated by persons living in familial environments. The Bulgarian sample includes a significant share of persons belonging to the Roma minority but is biased towards beneficiaries of training programmes organized by NGOs. Bulgarian respondents come mainly from the two biggest cities in the country.

The majority of the ELOST survey respondents are not familiar with the use of the internet. Internet familiarity in the lower socio-economic strata ranges from eight per cent in France to 37 per cent in Austria (it is 26 and 27 per cent in Israel and Finland respectively). Only in Germany and Bulgaria are familiarity rates significantly higher (73 and 47 per cent) but this reflects more a sampling and fieldwork design bias than the real situation in these countries.

The national differences in the socio-demographic composition of the survey samples allow the exploration of problems in different population groups as well as the identification of common trends.

E-exclusion is a problem of age and education in conjunction with lack of affordability and of technical skills. Older and/or low-educated respondents are more likely to be excluded from the new information age, especially when

lacking technical skills and the money for obtaining these, or the necessary infrastructure. However, whereas older respondents appear often resigned, not expecting to ever grow into on-liners as they do not think they need it, for younger respondents this is a handicap that can (and should) be overcome if the resources and training are made available. Age is however a relative category. A special problem is displayed by middle-aged unemployed whose negative attitudes to the internet are the result rather than the cause of continued exclusion insofar as they are used to justify a certain state of affairs in the classical cognitive dissonance manner.

Affordability is often mentioned as a barrier to e-inclusion: in generic questions on the use of new technologies, around 70 per cent of respondents in most countries mention this as a possible barrier. However when asked to report on their personal reasons for not having access to the internet, a much lower rate mentions this as a barrier with the exception of Bulgarians. Affordability is a problem for 77% of Bulgarian non-users, 50% of the French, 43% of the German, 40% of the Austrian but only 26 and 17 per cent of the Israeli and Finnish non-users respectively.

With regard to technical skills the gap between general assessments and those relating to one's own person are not as wide. Indeed, in France, Bulgaria and Austria we find a close to equivalent number of persons stating technical skills as a general barrier to e-inclusion, and as a specific barrier for themselves to explain lack of access and no or low use of the internet. In contrast, in Israel, Germany and Finland about twice as many respondents assess this as a general barrier rather in relation to themselves.

Citizens participating in the focus groups confirmed that lack of funds and lack of technical skills are the two single more important factors explaining no or low use of the internet. On the subject of costs, the focus group discussions revealed that lack of transparency is an inhibiting factor for people with little money that cannot afford 'experimenting'. A related concern is the life expectation of computers. The prospect of having to engage in regular upgrades of either hardware or software de-motivates people of low income to introduce modern communication technologies in their lives.

Turning to e-government, we find this enjoying surprising high levels of publicity, even among non-users, in Germany, Austria, and Finland. This is most likely the result of the availability of sophisticated services in conjunction with successful public relations. In all countries, regular use continues nevertheless to significantly lag behind awareness.

Barriers to the use of e-government are similar across countries, even if variably significant:

- ❖ Lack of awareness (of e-Government, in general, or of specific Web Site addresses, more specifically) is a problem especially in Bulgaria, less in Germany.
- ❖ Concerns about security, privacy and confidentiality is a problem especially in Israel and Germany. In Israel, this is also a significant barrier to internet non-use, by far more important than affordability or the lack of technical skills.
- ❖ User-friendliness relating to the technical / linguistic components of the relevant Web Sites are a problem in all countries and especially in conjunction with the non-availability of online or human support.

The analysis suggests that measures to address the above sets of problems will come a long way to improving the rate of usage of e-government sites in the future. In this respect the policy problem faced has less to do with exclusion in the socio-economic sense (i.e. the demand side) but with the supply side of government information and the latter's format and presentation. Improvements on these dimensions are likely to increase the use of e-government but also improve the image of public authorities considering that, overall, there is overwhelming agreement among our survey respondents that the new communication technologies open new prospects for communication, learning and politics.

Discussions on e-government within the focus groups produced a multitude of recommendations about improving online interaction with public authorities. But they also revealed how citizens expect personal and citizen-friendly government services per se, and are not willing to accept e-government as a substitute for government. Indeed in some countries – notably in Israel and France – negative attitudes expressed vis-à-vis e-government were clearly the result of hostility vis-à-vis government and widespread dissatisfaction with the institutional practices of public authorities.

The recommendations on e-government can be summarized as follows:

On raising awareness. E-government sites / services should be advertised more actively on television. Alternatively, booklets with Web addresses and short information about most important sites should be made available in public offices or distributed by mail to all households. It is important that awareness campaigns focus not only on the products but on the benefits for the user. E-government sites should be re-organized accordingly.

On user-friendliness and quality. Quality improvements called for in most countries include: the development of learning modules in the form of games; better navigation and search facilities; improve interfaces; simplify language; avoid overloading of pages.

It is equally important to recognize the need of users for support. It was practically a demand coming from all citizens in all countries that it should be possible when using e-government to have access to a telephone and/or e-mail support line. Furthermore, it should become standard practice to provide acknowledgment of receipt replies upon the submission of inquiries or forms with a reference number for further tracing if necessary.

On public access internet points. There were complaints with regard to their number and location. The preferred locations are community centres, libraries or other built public spaces, allowing the parallel availability of printing facilities and training / learning opportunities. The possibility of providing a few PAIP in internet cafés should also be explored.

The ELOST research confirms the rapid diffusion of interest in new communication technologies among persons of low socio-economic status or background. Even though familiarity with the use of the internet is still a minority phenomenon in these echelons of society, the awareness of online commercial and/or e-government services is proof that e-inclusion is a realistic goal and the way there clear.

1 Introduction

The ELOST project implemented a survey on patterns of internet use and attitudes to e-government among low socio-economic status groups. These groups are known to be both less likely to use the internet and more cautious about e-government. However, the reasons for this are not understood well. The ELOST survey was designed to tap on the reasons of no or low use and for understanding the needs and priorities of disadvantaged citizens. It was carried out in six European countries, namely, in Austria, Germany, France, Finland, Israel and Bulgaria.

This deliverable is a report on the findings of the survey. It is structured as follows:

The second chapter reports on the survey design and implementation and, more specifically, on the reference population and the extent to which the achieved sample in each country meets the selection criteria, and the implications for any deviations observed. Referring to the questionnaire, chapter two outlines the main hypotheses that drove the design of the ELOST survey. A more detailed description of the research design underpinning the survey can be read in Deliverable 3.1 of the ELOST project which also includes the full-text of the questionnaire and codebook for the survey.

The third chapter presents the survey findings based on a set of exploratory analyses. The findings are first, presented at the country level. Subsequently, common emerging trends and distinct particularities are discussed. A more detailed comparative and explanatory analysis of the findings of the ELOST survey is reported in Deliverable 5.1 that is forthcoming (main author: TAU).

The fourth chapter reports on the findings of the citizen focus groups organized in the various partner countries. The focus groups provided input into the questionnaire design as well as feedback to the survey's results. They provide a useful addendum to the survey findings, help place these in context and assist in the elaboration of policy recommendations.

2 Survey design and implementation

2.1 Reference population

The ELOST survey is not representative of the general populations of the countries under investigation. We have rather over-sampled respondents among those population strata that are more likely to display low or no internet use. Non-use is, in turn, strongly correlated with low socio-economic position.

Socio-economic position is defined with reference to income and status. Status is a function of education and occupation as well as of the degree of integration into the labour market. The four characteristics are closely interrelated: persons of low educational background are more likely to be found in low-skill occupations or be long-term unemployed and hence to display earnings that are below average. Moreover, other 'ascribed' characteristics such as gender and ethnicity are associated with socio-economic position in an inequitable manner and variably across countries. Thus women still tend to earn less even in developed countries where educational achievements have tended to equalize. Minorities are over-represented among the poor and are to be found in low-skill professions in most countries, albeit to a variable degree depending on their length of stay in the host society.

In accordance with the above, the reference population for the ELOST survey was defined as comprising those persons living in low-income households, i.e. households below the poverty threshold (where household income is below 50 per cent of the median household income in the country) and displaying one or more of the following characteristics:

- low-skill occupations (following ISCO classification);
- unemployed for six months or more, and/or
- low educational level (i.e. without a completed high school diploma).

Our target sample of completed questionnaires was 250 for each country under investigation. The sample was to be gender balanced and reflect the age distribution of the reference population. Interviews were carried out by phone or face-to-face. In order to achieve high representativity, and taking into account the difficulties involved in over-sampling lower strata populations, the sampling and fieldwork was in some countries territorially concentrated on specific regions or cities or, in the absence of a systematic sample base, organized with the help of specific social organizations. A fully comparable sampling and fieldwork framework was not possible given the population reference and

available financial and human resources. The following sections describe the fieldwork and achieved samples in each participating country.

2.2 Achieved samples

Table 2.2.1 displays the socio-demographic characteristics of the achieved samples in each country.

2.2.1 Austria

In Austria, the survey was carried out by the OGM Austrian Association for Marketing. OGM is active in the field of public opinion, marketing and media surveys and research (www.ogm.at). The interviews were carried out by telephone and were computer-assisted (CATI). The fieldwork took place in November and December 2006 across Austria; the raw data were delivered at the beginning of February 2007.

The sampling base was provided by the 'Lifestyle Consumer Databank' of the Schober Information Group that includes information on income, thus making it possible to concentrate on those individuals living in poor households, i.e. in households with earnings below € 1,000. Following the EUROSTAT definition (based on the EU-SILC survey), the poverty threshold lies at 50 per cent of the median household income. Therefore, the threshold varies by household size. In Austria, the poverty threshold for a single household lies at around € 700. Therefore, the 1,000 threshold used by OGM is a good cutting point for ensuring a good coverage of the low-income population across different household types.

As can be seen from table 2.2.1, the sample is biased towards older retired women. These are indeed over-represented among the reference population of low-income, low-education and/or low-skills respondents, especially in rural areas. Indicative in this respect is that only 17 per cent of the respondents have an educational attainment level higher than vocational training.

With regard to income, the accuracy of the sampling base used by the fieldwork institute is not entirely satisfactory. Close to one third of the respondents (29%) report living in households with a net income that is higher than € 1,000.

Further to this, only 3 of the 252 respondents report having a maternal language other than German. Yet the share of migrants among lower socio-economic strata is quite significant. The problem here appears to be a combined one of the sampling base used and the unwillingness of citizens of migrant background

to answer to telephone surveys in German. A similar problem was observed in France, Finland and Germany.

2.2.2 France

In France, the ELOST survey was incorporated in the omnibus survey Actuel carried out by the CSA on a regular basis. This enables access to a solid sampling base of the full population distinguished by key socio-demographic and economic criteria as required by ELOST. The CSA focused on income (below €1,000) and education as discriminatory variables.

The French sample is like the Austrian sample national and biased towards older female respondents living alone or with a partner. It is, however, more accurate with regard to income and education: 67 per cent of respondents live in households with net earnings below € 1,000 while all are of low educational background. Only 8 of the 256 respondents have a maternal language other than French or another EU language, an indication again that the sampling bases used by professional market institutes under-represent citizens of foreign origin.

2.2.3 Finland

In Finland, the survey was implemented by Innolink Research (www.innolinkresearch.fi), using telephone interviews and concentrating on the Tampere region. The sampling was done using register data.

The Finnish sample is more balanced in terms of gender than either the French or Austrian samples and also in terms of age. The majority of the Finnish respondents are unemployed in the age range of 35-54, of low educational background and living alone or with a partner. 54% per cent earn less than € 1,000 EUR, whereby the non-response rate to this question is 30%.¹

¹ The response rate to the income question ranged otherwise from 0% (France) to 18% (Germany). In most countries it was at around 10 to 13 per cent as expected.

Table 2.2.1 Achieved ELOST samples : Characterization by socio-economic and demographic characteristics								
	Austria	France	Finland	Germany	Israel		Bulgaria	
					<i>LSG group</i>	<i>Control</i>	<i>LSG group</i>	<i>Control</i>
Gender								
Male	42	40	49	46	44	39	54	48
Female	58	60	51	54	56	61	46	52
Age								
15-34	10	7	4	50	28	35	49	63
35-54	26	21	60	32	37	51	36	29
55+	64	72	36	18	34	14	16	8
Education								
Low	83	100	90	51	16	6	41	32
Middle	14	0	10	29	64	63	38	52
High	3	0	0	20	19	29	21	16
HH Type								
Single / couple	64	76	75	56	34	15	27	21
Family	33	18	23	32	63	82	61	64
Other	3	6	2	12	3	3	12	15
Activity								
Working	32	20	12	17	35	60	54	57
Retired	56	52	14	12	28	7	6	4
Inactive	12	28	74	71	37	33	40	39
HH Income								
Up to 250					6	0	46	28
250-499	26	35	35	44	25	0	27	35
500-749					38	0	11	16
750-999	32	32	19	17	31	0	4	6
1000-1249	14	33	6	7	0	37	1	3
1250+	16	0	0	14	0	23	5	6
DK	13	0	30	18	0	40	6	6
Total	252	256	249	250	261	68	350	100

2.2.4 Germany

In Germany, the survey was carried out in collaboration with several non-governmental organizations collaborating with NEXUS, the German consortium partner in ELOST. The clientele of these NGOs comprises elderly persons of low income; beneficiaries of social assistance or home care; recipients of assistance from religious charitable organizations as well as migrants that are targeted by integration programmes. A total of 150 interviews were thus obtained. An additional 100 interviews were carried out with recipients of unemployment assistance upon permission granted by the German Labour Office. All interviews in Germany were carried out face-to-face.

Like the Finnish sample, the German sample is urban (Berlin) and dominated by unemployed and/or inactive persons. The group is comparatively young with half of all respondents being younger than 34. The educational skills are equivalently distributed with 49 per cent reporting a high-school diploma or higher.

The younger age distribution of German respondents is in part to be explained by the fact that the interviews were carried out face-to-face. Telephone interviews tend to be biased with respect to the working time of interviewees, during which inactive and older persons are more likely to be reachable by phone at home.

2.2.5 Israel

In Israel, the fieldwork was implemented by Smith Research & Consulting, interviews were carried out by telephone. The sample was drawn from the Database of National Surveys compiled by Smith Research & Consulting over the past three years with information on household income. This is a national database organized by area (telephone) code.

The Israeli achieved sample comprised 261 respondents from low socio-economic status groups and a further 68 persons living in households above the poverty threshold as a control group.

The Israeli low socio-economic status group is concentrated in the middle age category of 35 to 54 and the middle educational level of attainment. Respondents are more likely to be living in family households while the share of the active, inactive and retired is almost balanced. Two thirds live in households with a net income lower than 750 EUR. In contrast the control group is biased towards working women with children.

2.2.6 Bulgaria

In Bulgaria, the fieldwork was carried out by the International University of Sofia; the interviews were carried out face-to-face.

The Bulgarian survey was carried out mainly in the cities of Sofia and Plovdiv where there is also a large concentration of Roma population. The achieved Bulgarian sample includes 68 % respondents of Bulgarian origin, 31% respondents of Roma origin and 1 % of respondents of Turkish origin. In contrast the control group is dominated (96%) by respondents of Bulgarian origin who are, on average, somewhat better-off than those in the targeted low socio-economic group.

Convenience sampling was used to target Bulgarian citizens for the survey; Roma respondents were selected among participants of social integration projects offered by NGOs or the community council. These projects include typically training in the use of the internet. From this perspective the sample in Bulgaria is biased towards internet users and misrepresents the share of internet users in the Bulgarian population.

2.2.7 Comparisons

The achieved samples in the countries under investigation differ as would be expected given (a) the variation of the representation of different groups within the low socio-economic reference population in different countries, but also (b) the differing quality of the sampling base and sampling approach used by the different partner institutions and their sub-contractors.

The following can be pointed out:

- The Austrian and French samples resemble each other in that they are national and in displaying a high share of older female respondents of low educational background and low income. In both samples, persons of minority or migrant origin are under-represented.
- The Finnish and German samples are both urban and display a significant share of unemployed. In Finland the majority of respondents are of low educational background and middle-aged; in Germany they are more likely to be younger than 35 and are of low to middle educational background.
- The Israeli group is dominated by persons living in family households and, consequently, the age and activity status distributions are both quite balanced. In contrast to respondents in other countries, Israeli respondents tend to be more educated.

- The Bulgarian group is like the Israeli group dominated by persons living in family households; however the share of low-educated and younger respondents is significantly higher.
- The control groups in Israel and Bulgaria differ from the targeted samples primarily in terms of income, and, to a lesser extent, with regard to education (higher) and age (younger).

Given the above variation in the socio-demographics of the achieved samples in each country, any comparative analysis must take into account the following caveats:

1. Age-specific results are likely to compound national effects or, indeed, the urban-rural divide given that in the pooled data a significant share of older respondents is Austrian / French while a significant share of younger respondents is German / Bulgarian.
2. Comparisons according to activity status should also take into account that the majority of the unemployed are from Germany and Finland.
3. Household type comparisons should consider that single households as well as two-person households are over-represented in Austria and France; while family households are over-represented in Bulgaria and Israel.
4. Finally, the income distribution is skewed to the under € 500 threshold in Israel and, especially, Bulgaria.

The above caveats imply that comparisons using the pooled data from all countries for the purpose of focusing on specific socio-demographic groups, or, alternatively, cross-national comparisons must control for the above biases in the samples.

With regard to other surveys, it is important to recall that the ELOST survey is not directly comparable with earlier surveys like SIBIS (from 2002) or the EUROSTAT regular survey on ICT use. The main reason for this is that ELOST, unlike previous surveys, focuses on low socio-economic strata rather than the general population. Further to this, the ELOST questionnaire (see below) draws a distinction between those familiar with the use of the internet and those that are not. This approach is better suited for exploring e-exclusion as compared to the question of (private) access (to a computer or internet). The few comparisons that can be made (in part reported in Deliverable 5.1) suggest that among those familiar with the internet, confidence in the latter's use and indeed the use of various services is on the increase.²

² For instance, according to the Eurostat data for the EU-15, in 2004 37 per cent used internet banking. Close to three years later in the ELOST countries and among those

2.3 Key hypotheses

The questionnaire for the ELOST survey comprised two parts and forty eight questions.³ All questions were standardized, several were multiple-choice. Those who are familiar with the internet answered the first part; the second part was for those with no or little familiarity with the use of the internet.

Respondents with previous internet experience were asked the following:

- when they used the internet for the first time;
- whether they took a training course on any aspect of computer use and when;
- whether they have access to internet at home;
- (if not): the reasons for not having access to internet at home;
- their average use of the internet during the last three months;
- where they use internet;
- whether they are aware of a public access internet point in their neighbourhood;
- whether they have used (or use) a public access internet point;
- whether they find public access internet points user-friendly;
- what they like / dislike about public access internet points;
- whether they are aware (and use) the internet for a set of activities;
- whether they are aware (and use) the internet for communicating with public authorities on various subjects;
- what are reasons for not using (at all or always) e-Government;
- their attitudes vis-à-vis e-Government;
- their confidence about doing various activities via the internet ;

familiar with the use of the internet in low socio-economic strata, this share had risen to 46%. Similarly, in 2004, 40% were reported to be able to use the internet to get information on public authorities; the respective percentages for obtaining and submitting official forms were 20 and 10%. Among the low socio-economic strata in ELOST the respective figures are 34 (as compared to 40), 35 (20) and 21 (10). Our ELOST respondents that are familiar with the use of the internet also display high confidence levels with regard the use of the internet for communication (74%), for downloading software (41), questioning sources (41) and searching (72). The figures for the general population from 2002 (based on SIBIS and not making any distinction with regard to familiarity) were 32, 15, 13 and 20.

³ The full text of the questionnaire can be downloaded from the ELOST Web Site (www.elost.org) and is available as an annex to Deliverable 3.1 (November 2006). The questionnaire was first formulated in English and then translated into local languages. It was revised first internally based on partners' comments; and refined then again following the pilot interviews carried out in each country. The pilot interviews were carried out to test the comprehensibility of the questions and of the answer categories; for tapping on possible redundancies or missing items; as well as for testing the questionnaire's length. The average length of the interviews was 25 minutes.

- what it is they are concerned about when using the internet;
- what would increase their likelihood of using the internet and e-Government;
- whether they use other means to interact with public authorities;
- whether they can imagine interacting with public authorities in the future with new communication technologies.

Persons with no previous use of the internet are asked similar questions to the above, whereby our main objective in this case was to unveil their potential familiarity with the internet through family members or significant others and to gauge their openness to this technology. More specifically, they were asked:

- why they are not familiar with the use of the internet;
- whether they would be interested in learning how to use the internet;
- whether they would be interested in taking a computer course;
- whether they have access to the internet at home even if they themselves do not use it;
- what are the main reasons for not having access to internet at home;
- how often family members use the internet;
- whether they are aware of public access internet points in their neighbourhood;
- whether they are aware of what the internet can be used for and, if so, what for;
- whether they are aware of the use of the internet for e-Government services and, if so, for which ones;
- whether they use other means to interact with public authorities;
- what they more generally think about the internet;
- whether they could envisage using new emerging communication technologies to interact with public authorities in the future.

We expect the above battery of items to allow us to distinguish between:

- ❖ those who have little familiarity with the internet and who cannot be expected to be easily gained as users in the near future by reason of lack of skills combined with lack of familiarity and, in turn, with problems in terms of accessibility; and
- ❖ non-users who in principle are not against new communication technologies but who are not using the internet and e-Government because of the costs involved and lack of skills (which, however, they would like to improve).

We expect to be able to distinguish quite clearly between the above two groups in terms of socio-demographic characteristics. This, in turn, will indicate how to better tailor raising awareness campaigns and/or training for increasing the rates of internet and/or e-Government use among low socio-economic status groups.

- ❖ Further to the above, we expect the level of use of e-government among those who are familiar with the internet to be associated with technical and cognitive barriers as well as attitudes to data protection and security.

As with non-users, policies targeting partial-users must take into account the diversity of this group and the way this is framed by living conditions as well as social and cultural aspects.

3 Survey findings

This chapter reports on the findings of the ELOST survey. We first report on the main findings for each country. Subsequently we carry out a preliminary comparison highlighting common trends and distinctive patterns.

3.1 Austria

The majority of the ELOST survey respondents in Austria, namely 63%, report not being familiar with the use of the internet at all; one in eight (13%) say they are not very familiar. Only one in four (24%) state they are very familiar.

Table 3.1.1 displays the socio-demographic characteristics of users and non-users of the internet. For analytical purposes, those with no familiarity have been combined in one group with those with little familiarity.

Table 3.1.1. Socio-demographic characteristics acc. to internet familiarity (in %)		
	<i>Familiar with internet</i>	<i>Not familiar</i>
Gender		
Male	53	39
Female	47	61
Age		
15-34	25	5
35-54	48	18
55+	27	77
Education		
Low	65	89
Medium	22	11
High	13	0
HH type		
Live alone /w. spouse	45	70
Live in family w. children	55	25
Other arrangement	0	5
Activity status		
Working	58	24
Inactive	20	9
Retired	22	67
Income		
Up to € 750	30	30
750 to just under 1250	41	56
1250 plus	29	14
Total (N)	60	192

Austrian internet non-users are more likely to be female, older, retired, of low educational background and living alone or with a spouse. Statistically, age and education produce by far the most significant effects and also largely explain the effects observed with regard to household type and activity status.

3.1.1 Reasons for no / low use of internet

Table 3.1.2 displays the reasons for no or low internet use in descending order:

Table 3.1.2 Reasons for no or low internet use (in %)	
Do not need internet	74
Difficulty using computer	70
Nobody ever showed me how ...	50
Family member uses computer for me	48
Cannot afford computer	38
Internet contents are not useful	28
Internet contents are harmful	26
Not very good at reading / writing	9
Total (N)	192

Three out of four respondents state that they are not using the internet because they do not need it. This negative attitude is a function of age; its prevalence in the Austrian sample is explained by the greater incidence of older respondents among non-users.

Otherwise, attitudinal factors are less important for explaining non-use: less than one third of the respondents blame internet contents (as either not useful or harmful) for not going on-line. In contrast, lack of technical skills and concerns about affordability are stronger explanatory factors: 70 per cent of respondents admit they have difficulties using a computer while 38 per cent say they cannot afford the costs for a PC. These results are confirmed by the answers to another question addressed to those with no computer / internet access at home and not familiar with the use of internet: 56 per cent of these 134 respondents state that equipment costs are too high and 54 per cent complain about the access costs. In comparison only 31 and 28 per cent are concerned about data security and/or privacy respectively.

3.1.2 Awareness about online services among non-users

Table 3.1.3 displays the level of awareness regarding internet services among those respondents with no internet access and not familiar with the use of the internet. Awareness ranges from 20 to 31 per cent, i.e. it is comparatively low

even if not non-existent. Thus close to one third of non-users know that the internet can be used to find information about goods and services or for communication purposes. This compares to just below one in four who know that the internet can be used for downloading games, for banking services or reading newspapers.

Table 3.1.3 Awareness of on-line services among non-users with no internet access (in %)	
Internet can be used to ...	
Find info about goods /services	31
Communicate via e-mail	30
Exchange over chat rooms	27
Take educational courses	27
Use services related to travel	25
For shopping	23
To look for a job	22
To use health services	22
To download games	20
To use banking services	20
To read newspapers / listen to radio	19
Total (N)	134

Given the above comparative low levels of awareness regarding the private or commercial use of the internet, it is all the more surprising to find the same respondents being knowledgeable about e-government (see table 3.1.4).

Table 3.1.4 Awareness of e-government among non-users with no internet access (in %)	
Yes, I know or have heard of the following e-gov services ...	
Obtaining info about public authorities	61
Interacting with tax office	61
Downloading official forms	58
Submitting filled-in forms	58
Using job services	56
Search for books in public libraries	55
Requesting passport / other certificates	47
Making payments to public authorities	45
Car registration	36
Registering change of address	36
Declarations to police	31
Total (N)	134

Over 60 per cent of the respondents know about the presence of public authorities on the internet and, more specifically, the tax office; while just below

60 per cent are aware that the internet can be used for downloading and submitting official forms or for using job services. The above high levels of awareness of e-government among non-users is indicative of the success of the publicity of the Austrian e-government programme through the traditional media like TV, radio and the print press.

Personal communication remains nevertheless the favoured means of communication with governmental authorities. 95 per cent of these same respondents state that they settle business with public authorities personally; communication by telephone (conventional) ranges second with 56 per cent incidence. All other forms of communication, including traditional ones like the post, are far behind.

3.1.3 Non-user attitudes vis-à-vis the internet

Overall among respondents with low or no familiarity of the internet we find a prevalence of both positive and negative attitudes regarding the new information age. Table 3.1.5 displays the levels of agreement with a set of statements about the internet:

Table 3.1.5 Statements about the internet; agreement levels (in %)	
The Internet ... I agree completely / somewhat	
Requires advanced computer skills	81
Too expensive to use	75
Is not secure	75
Represents a problem for privacy and confidentiality	67
Too time consuming	61
Not easy to get access to	38
Opens new prospects for learning / gathering information	92
Opens new prospects for communication	87
Opens new prospects for democracy	81
Total (N)	192

Even those not familiar with new communication technologies – are convinced in their overwhelming majority that the internet opens new prospects for learning, communication and democracy.

At the same time, the majority thinks that the internet requires advanced technical skills, is too expensive, not secure and too time consuming. With regard to privacy and security it is notable that two thirds of the respondents agree that these are problems, yet only around one third state this to be a

barrier for them personally with regard to going on-line (see table 3.1.2 and subsequent discussion). This is a remarkable finding insofar as it points to the overall acceptance of the new communication technologies despite the recognition of the problems these might bring about.

3.1.4 Familiarity: a strong explanatory factor

Familiarity with the use of the internet is nevertheless in itself an explanatory factor with regard to attitudes to the internet. Table 3.1.6 compares the answers to statements about the internet between users and non-users, albeit focusing on those with no internet access at home in either case:

Table 3.1.6 Attitudes to the internet – Comparison users and non-users (in %)		
	Users	Non-users
Internet contents harmful	(22)	17
Internet contents not useful	0	18
Equipment costs too high	(33)	56
Access costs too high	(33)	55
Concerned about privacy	(11)	29
Total (N)	9	134

The sub-sample of users with no internet access at home is of course very small to allow the drawing of any statistically significant conclusions; still the trend would appear to be that negative attitudes to the internet decrease with greater familiarity.

Familiarity with the use of a new technology is clearly linked to the level of awareness of specific services. Tables 3.1.7 and 3.1.8 compare the levels of awareness about commercial services on the internet as well as e-government services among users and non-users.

Table 3.1.7 Awareness of internet services (in %)		
	Users	Non-users
Communication via e-mail	100	34
Find info about goods / services	98	35
Shopping	98	24
Reading newspapers / listen radio	98	22
Exchange chat rooms / online forums	97	26
Downloading games / music	97	24
Using banking services	97	23
Use for travel / accommodation	95	26
Looking for job	95	23
Taking educational courses	88	28
Using health services	70	23
Total (N)	60	192

Table 3.1.8 Awareness of e-government services (in %)		
	Users	Non-users
Obtain info from public authorities	95	65
Obtain official forms	93	64
Interact with tax authorities	93	66
Using job services	93	59
Submit official forms	90	63
Search for books in public libraries	85	55
Request various certificates	83	48
Registering change of address	80	40
Making payments to public authorities	78	45
Car registration	78	35
Declarations to police	68	31
Total (N)	60	192

3.1.5 Awareness vs. use

Awareness of e-government services is however not equivalent to use. Table 3.1.9 compares the levels of awareness with the levels of actual use among those familiar with the use of the internet. It shows how actual use of e-government services lacks far behind awareness. This suggests that raising awareness, even if representing the first important step, is not sufficient for establishing e-government as a standard practice of interaction with citizens.

Thus even though practically all respondents with a certain familiarity of the internet say they are aware that it is possible to obtain information about public authorities on the internet, only every second respondent reports doing so. The rate of usage is even lower with reference to the tax authorities (one third) or for the purpose of requesting various certificate (one in five).

Table 3.1.9 Awareness and use of e-government among internet users (in %)		
	Aware	Aware and use
Obtain info from public authorities	95	48
Obtain official forms	93	53
Interact with tax authorities	93	38
Using job services	93	37
Submit official forms	90	43
Search for books in public libraries	85	30
Request various certificates	83	17
Registering change of address	80	15
Making payments to public authorities	78	32
Car registration	78	15
Declarations to police	68	8
Total (N)	60	60

By far the lowest uptake of e-government services is displayed with reference to the police and registration authorities. This, however, probably also reflects the low frequency of the use of these services by the average citizen.

Contrary to the above, commercial internet services are more likely to be regularly used once they become known. The use of e-mail is close to universal among internet users while three out of four use the internet for search purposes and every second for shopping, getting information on news or to use banking services.

Table 3.1.10 Awareness and use of commercial internet services among internet users (in %)		
	Aware	Aware and regularly use
Communication via e-mail	100	88
Find info about goods / services	98	75
Shopping	98	52
Reading newspapers / listen radio	98	48
Exchange chat rooms / online forums	97	32
Downloading games / music	97	35
Using banking services	97	53
Use for travel / accommodation	95	42
Looking for job	95	31
Taking educational courses	88	18
Using health services	70	10
Total (N)	60	60

Commercial internet services that are still lacking behind in terms of use include the chat rooms, using the internet for downloading games / music but also for health services or looking for a job. Still, and with the exception of the use of the internet for health services, the use of commercial internet services is overall higher than the use of governmental internet services. This certainly in part reflects the lower incidence of interaction with governmental authorities per se; to a certain extent it is nevertheless indicative of the better publicity and user-friendliness of commercial services as compared to governmental services.

3.1.6 Prospects / barriers to e-government

Respondents with a certain familiarity with the internet and e-government were presented with a set of statements with regard to barriers / facilitators to the use of e-government and the latter's future prospects (table 3.1.11)

The overwhelming majority of respondents are theoretically positively inclined towards e-government, being of the opinion that e-government makes it possible to deal with authorities at convenient times and locations as well as faster. Six out of ten respondents further think that e-government is likely to be less mistake-prone than traditional forms of interaction and less complicated, therefore more reliable.

Table 3.1.11 Statements about e-government; agreement levels (in %)	
E-government ... I agree completely / somewhat	
Make it possible to deal with authorities at convenient times	94
Make it possible to deal with authorities at convenient locations	94
Faster than traditional means	93
Requires special equipment of software	58
Will represent the only way to deal with authorities in future	57
Difficult to use without human support	56
Reduces mistakes of public authorities	56
Not as safe as traditional means	51
Difficult to use without online support	48
Not as reliable as traditional means	42
More complicated to use than traditional means	41
Total (N)	60

Every second respondent is however concerned about e-government not being as safe as traditional means and about it being possibly difficult to use (at first) without human or online support. Consistent with this finding, every second respondent says they are concerned about issues of data security and privacy and the same number is concerned that they can keep up with technical developments. Interacting with public authorities personally is subsequently still the favoured form of communication among internet users: as with non-users 93 per cent state they use personal communication to interact with governmental authorities.

3.1.7 Targets for policy

At the onset of our research we hypothesized that attitudes, on the one hand, and skills, on the other hand, in conjunction with socio-demographic characteristics would help distinguish between different groups of non-users. As shown in section 3.1.1 above, internet non-use is primarily explained by lack of technical skills and affordability problems. However, willingness to learn how to use the internet is more a function of attitudes.

Respondents with no or low familiarity to the internet were asked whether they would be interested in learning to use the internet. The overwhelming majority, 73 per cent, answer negatively to this question. Age and education are discriminatory factors in this respect: the older the respondent and the lower his/her highest educational achievement the more likely to not be interesting in learning how to use the internet, whereby the age effect is stronger than that of education. Undoubtedly the relatively high percentage of users that are not interested in learning how to use the internet in the Austrian sample is explained by the over-representation of older respondents in the sample.

A factor analysis (principal components; varimax rotation) carried out on the battery of items listing possible reasons for not wishing to learn how to use the internet revealed two factors explaining together around 44 per cent of the variance. The first factor displayed highest loadings on attitudinal items, and, especially, on the items 'internet contents are harmful', 'internet contents are not useful' and 'do not need the internet'. The second factor reflected lack of technical skills with high loadings on the items 'I have difficulty using the computer', 'another family member uses the computer for me' and 'I am not very good at reading and writing'.

Respondents scoring high on the attitudinal factor are less likely to be interested in learning how to use the internet as compared to respondents scoring high on the skills factor: thus 24 per cent of those displaying lack of skills are interested to learn how to use the internet as compared to 19 per cent among those with negative attitudes. The result is statistically significant.

What these results suggest is that in Austria:

- ❖ Older internet non-users are negatively inclined towards new communication technologies like the internet for themselves even if having an overall positive appreciation of technological developments in terms of their societal impacts. Getting these citizens on-line would necessitate measures tailored to these citizens' needs and expectations such as raising awareness campaigns that provide examples as to how the internet and e-government can be practically useful for them while exemplifying the useful and non-harmful contents of the internet.
- ❖ Among younger internet non-users, non-use is a factor of lack of internet access, itself to be explained by lack of technical skills and affordability concerns. The former factor is by far more important than the latter. Getting this group on-line requires broadening the offer in training courses while recognizing that lack of skills is not alone a question of technique.

Insofar as the use (as opposed to awareness) of e-government, our results suggest that the problem here is compound in different ways. A factor analysis of a battery of items with statements about e-government (principal components; varimax rotation; question 14) revealed five factors with cumulative explanatory variance of 77 per cent:

- Factor 1 (explaining 29% of variance) reveals lack of awareness with strong loadings on the items / statements 'not aware of Web addresses', 'do not know how to use these services', 'not aware of e-government'. The strength of this factor is in line with the findings reported previously that awareness is a necessary even if not sufficient element towards the wider diffusion and uptake of e-government (see section 3.1.5).

- Factor 2 (explaining 14% of variance) brings together concerns about technical issues with high loadings on items 'worried about connections not being secure' and 'afraid of viruses'.
- Factor 3 (explaining 12% of variance) has high loadings on the items 'font is too small', 'language used by officials difficult to understand' and 'no online support available' and reveals concerns about user-friendliness.
- Factor 4 (explaining 10% of variance) is similarly about user-friendliness but more about the problem of navigation.
- Finally, factor 5 (explaining 9% of variance) concerns in particular persons with low proficiency in the official language of a country.

The analysis suggests that measures to address the above sets of problems will come a long way to improving the rate of usage of e-government sites in the future. In this respect the policy problem faced has less to do with exclusion in the socio-economic sense (i.e. the demand side) but with the supply side of government information and the format of the latter.

3.2 France

Only 21 out of the total 256 French respondents are familiar with the use of the internet. This corresponds to 8 per cent. Table 3.2.1 displays the socio-demographic characteristics of the two groups, whereby the results for the users-group ought to be treated with caution given the small cell size.

Table 3.2.1. Socio-demographic characteristics acc. to internet familiarity (in %)		
	<i>Familiar with internet</i>	<i>Not familiar</i>
Gender		
Male	33	40
Female	67	60
Age		
15-34	43	4
35-54	28	21
55+	29	75
Education		
Low	100	100
Medium	0	0
High	0	0
HH type		
Live alone /w. spouse	43	78
Live in family w. children	57	15
Other arrangement	0	7
Activity status		
Working	43	19
Inactive	33	23
Retired	24	58
Income		
Up to € 750	29	36
750 to just under 1250	71	64
1250 plus	0	0
Total (N)	21	235

Basically the French ELOST survey provides information about internet non-users among the low-earning, low-education echelons of the French society. These are more likely to be women (60 per cent), above 55 years of age (75%), living alone (78%) or with a spouse (15%) and being inactive (23%) or retired (58%).

Given the small size of the sub-sample of users among low earners, the analysis reported below focuses solely on the non-users.

3.2.1 Reasons for no/low use of internet

Table 3.2.2 displays the reasons for non-use in descending order in terms of importance:

Table 3.2.2 Reasons for no or low internet use (in %)	
Do not need internet	83
Difficulty using computer	68
Nobody ever showed me how ...	50
Cannot afford computer	50
Internet contents are not useful	50
Family member uses computer for me	33
Internet contents are harmful	31
Not very good at reading / writing	28
Total (N)	235

The majority of the respondents think they do not need a computer and report having difficulty using one. Every second respondent mentions affordability as a barrier, while every third respondent sees difficulty with reading / writing as an additional problem.

A factor analysis of the above items produces a three-factor solution (principal components analysis; varimax rotation) as follows:

- Factor 1 taps on affordability and technical skill problems with high loadings on 'cannot afford computer', 'nobody ever showed me how ...', 'not very good at reading/writing' and 'difficulty using computer'. Three out of four French respondents score on this factor, 35 per cent agree with three or all four items.
- Factor 2 taps on attitudinal barriers with high loadings on the items 'internet contents are not useful' and 'internet contents are harmful'. Close to every fifth French respondent (18%) is of the opinion that internet contents are both harmful and not useful.
- Factor 3 displays high loadings on the two items 'do not need internet' and 'family member uses computer for me'. 27 per cent of the respondents think they do not themselves need internet because of a family member having access instead.

These three factors explain cumulatively 54 per cent of the variance on this question; by far the strongest is factor 1 that explains 25 per cent of the variance. Unlike in Austria, however, none of these factors explains willingness to learn the internet (overall low at 24%).

3.2.2 Awareness of online services among non-users

Despite the prevalence of internet non-use among lower status older French respondents, their level of awareness of online services is quite high – indeed higher than in Austria (table 3.2.3). On average, every second French respondent is aware of the various commercial services on the internet even if not using them.

Table 3.2.3 Awareness of on-line services among non-users (in %)	
Internet can be used to ...	
To look for a job	59
To download games	58
For shopping	55
Use services related to travel	54
Find info about goods /services	54
To use banking services	52
Communicate via e-mail	49
To read newspapers / listen to radio	45
To use health services	43
Exchange over chat rooms	43
Take educational courses	34
Total (N)	235

In contrast, awareness of e-government is more variable (table 3.2.4).

Table 3.2.4 Awareness of e-government services among non-users (in %)	
Yes, I know or have heard of the following e-government services ...	
Interacting with tax office	63
Using job services	57
Obtaining info about public authorities	55
Making payments to public authorities	44
Search for books in public libraries	38
Requesting passport / other certificates	37
Registering change of address	37
Downloading official forms	34
Submitting filled-in forms	32
Declarations to police	24
Car registration	16
Total (N)	235

Six out of ten of French respondents is aware of the presence of the tax office e-government services as well as those of the employment agency. Every second respondent knows furthermore that it is possible to obtain information

on public authorities on the internet. However, only four out of ten know that it is possible to download official forms and three out of ten that it is possible to submit filled-in forms.

The great majority of French respondents prefers to get in contact with government authorities by telephone (fixed line) (91%), by post (85%) or personally (67%).

3.2.3 Non-user attitudes vis-à-vis the internet

Three out of four respondents think that the internet is too expensive to use and requires advanced computer skills ; every third respondent is concerned about security as well as privacy and confidentiality.

Table 3.2.5 Statements about the internet; agreement levels (in %)	
The Internet ... I agree completely / somewhat	
Too expensive to use	73
Requires advanced computer skills	72
Is not secure	67
Represents a problem for privacy and confidentiality	67
Too time consuming	63
Not easy to get access to	58
Opens new prospects for communication	87
Opens new prospects for learning / gathering information	84
Opens new prospects for democracy	54
Total (N)	235

At the same time, the majority is convinced that the internet opens new prospects for communication and learning. Only every second respondent seek the internet as relevant for politics and democracy.

3.2.4 Targets for policy

Improving the access to and use of new communication technologies among older and poorer French citizens (the principal group in the ELOST French sample) will necessitate measures principally in two directions, namely, with regard to financial incentives and training. These are the two main barriers to e-inclusion in France and, as also shown by the focus group discussion (see next chapter), also valid for younger poor French citizens.

3.3 Finland

27 per cent of the Finnish sample is familiar with the internet, the rest are either not at all familiar or very little. Table 3.3.1 compares the two groups:

Table 3.3.1. Socio-demographic characteristics acc. to internet familiarity (in %)		
	<i>Familiar with internet</i>	<i>Not familiar</i>
Gender		
Male	47	49
Female	53	51
Age		
15-34	12	2
35-54	76	53
55+	12	45
Education		
Low	89	90
Medium	11	9
High	0	1
HH type		
Live alone /w. spouse	71	77
Live in family w. children	26	22
Other arrangement	3	1
Activity status		
Working	25	7
Inactive	75	74
Retired	0	19
Income		
Up to € 750	46	52
750 to just under 1250	40	40
1250 plus	14	8
Total (N)	68	178

The two groups differ primarily with respect to age (internet users are younger). The majority in both groups is to be found in the inactive status group: 69 per cent of the overall sample are unemployed. Hence the Finnish data (like the German data later reported upon) provide insight into the barriers faced by unemployed people with regard to the internet and e-government.

3.3.1 Reasons for no / low use of internet

Close to all Finnish respondents of low status say they do not need the internet, therefore are not familiar with its use; every second respondents claims that internet contents are not useful. Responses to other items reveals that the lack of skills (mainly technical but not only) has also to do with non-use. Affordability

is only a relevant issue for 17 per cent of the respondents. Table 3.3.2 displays the reasons stated in descending order of incidence.

Do not need internet	97
Internet contents are not useful	55
Difficulty using computer	44
Not very good at reading / writing	27
Nobody ever showed me how ...	26
Cannot afford computer	17
Family member uses computer for me	16
Internet contents are harmful	11
Total (N)	179

3.3.2 Awareness of commercial and e-government services

The level of awareness of commercial services on the internet is very high among internet users but also among non-users (table 3.3.3).

	Users	Non-users
Communication via e-mail	100	96
Find info about goods / services	100	92
Using banking services	100	95
Downloading games / music	99	89
Reading newspapers / listen radio	99	59
Shopping	98	81
Exchange chat rooms / online forums	98	84
Looking for job	96	53
Use for travel / accommodation	88	51
Taking educational courses	85	40
Using health services	84	40
Total (N)	68	178

Interestingly, comparatively low awareness levels among non-users are, among else, reported for the use of the internet for looking for a job. This is surprising given the predominance of unemployed respondents in the Finnish sample.

Turning to e-government services, we find similar high levels of awareness both among users and non-users.

Table 3.3.4 Awareness of e-government services (in %)		
	Users	Non-users
Obtain official forms	97	84
Submit official forms	97	83
Search for books in public libraries	97	76
Using job services	96	80
Registering change of address	93	75
Obtain info from public authorities	91	78
Interact with tax authorities	90	76
Request various certificates	87	64
Making payments to public authorities	84	61
Declarations to police	71	48
Total (N)	68	178

Comparatively fewer respondents are aware of the possibility of using the internet to register a car or to make declarations to the police. However, a higher share of Finnish respondents is aware of these services as compared to Austrian or French respondents.

3.3.3 Awareness vs. use

The use of internet and e-government services is not as high as awareness. The tables that follow compare awareness with regular use among internet users.

Table 3.3.5 Awareness and use of commercial internet services (in %)		
	Aware	Aware and regularly use
Using banking services	100	84
Find info about goods / services	100	75
Communication via e-mail	100	54
Reading newspapers / listen radio	99	41
Looking for job	96	29
Downloading games / music	99	27
Shopping	98	16
Exchange chat rooms / online forums	98	12
Use for travel / accommodation	88	4
Taking educational courses	85	3
Using health services	84	0
Total (N)	68	68

Table 3.3.5 ranks the various services according to frequency of use. Finnish respondents are most likely to use the internet for the purpose of financial transactions or for finding out information about goods and services; significantly less for communication (by e-mail or through chat / online forums) or for shopping.

Table 3.3.6 Awareness and use of e-government services (in %)		
	Aware	Aware and regularly use
Obtain official forms	97	29
Using job services	96	28
Obtain info from public authorities	91	22
Making payments to public authorities	84	19
Submit official forms	97	18
Search for books in public libraries	97	15
Interact with tax authorities	90	12
Request various certificates	87	6
Registering change of address	93	3
Car registration	71	0
Declarations to police	71	0
Total (N)	68	68

The use of e-government is quite low. The highest usage is found for downloading official forms and looking for job, but even here not more than three out of ten respondents are found to be regular users.

The favoured form of communication with public authorities among Finnish respondents that are also familiar with the use of the internet is by personal communication (88%), by post (88%) and by mobile phone (77%). Similar results are obtained for non-users: personal communication (93%), post (87%), mobile phone (68%).

3.3.4 Attitudes to internet and e-government

Internet non-users have an overall positive approach to the internet, and think that it opens new prospects for communication, knowledge and democracy; however they are also in their overwhelming majority concerned about costs, security, privacy and confidentiality (table 3.3.7).

Table 3.3.7 Statements about internet; agreement levels (in %) among non-users	
The Internet ... I agree completely / somewhat	
Too expensive to use	89
Requires advanced computer skills	69
Is not secure	69
Represents a problem for privacy and confidentiality	69
Too time consuming	57
Not easy to get access to	37
Opens new prospects for learning / gathering information	98
Opens new prospects for communication	98
Opens new prospects for democracy	94
Total (N)	178

Users of the internet, on the other hand, seem absolutely convinced that e-government is both faster and more reliable with regard to reducing mistakes of public authorities. They are also of the opinion in their overwhelming majority that it is not more complicated to use than traditional means (table 3.3.8).

Table 3.3.8 Statements about e-government; agreement levels (in %) among users	
E-government ... I agree completely / somewhat	
Faster than traditional means	99
Reduces mistakes of public authorities	92
Will represent the only way to deal with authorities in future	54
Make it possible to deal with authorities at convenient locations	53
Make it possible to deal with authorities at convenient times	52
Requires special equipment of software	52
Not as reliable as traditional means	50
Difficult to use without human support	48
Not as safe as traditional means	47
Difficult to use without online support	46
More complicated to use than traditional means	18
Total (N)	68

Yet as discussed in the previous section use of e-government is not widely diffused among low status Finnish citizens. This is in part to be explained by lags in technical skills and concerns about safety. Every second respondent thinks the use of e-government requires special equipment, is not easy to use without human or online support, and is not as safe.

3.3.5 Barriers to e-government

Asked about problems encountered, or aware of, with regard to e-government, respondents who are familiar with the use of the internet mention navigation and the official language as main barriers (table 3.3.9):

Find it difficult to navigate	43
Language used by officials difficult to understand	31
Not aware of Web Site addresses	15
Worried about connections not being secure	12
No on-line support available	11
Afraid of possible viruses	10
No human support available	8
Not fluent in Finnish	7
Not aware of e-government	4
Do not know how to use the service	3
Font of letters is too small	3
No possibility to print out forms	3
Total (N)	68

Concerns about security and viruses is reported by about 10% of respondents.

3.3.6 Targets for policy

Overcoming e-exclusion and getting more people online in Finland will require developing programmes targeting two distinct problems, namely, lack of technical skills, on the one hand, and negative attitudes in combination with lack of generic skills, on the other hand.

A factor analysis of the question tapping on reasons for non-use of the internet identified two factors as follows:

- Factor 1 (explaining 33% of variance) clusters attitudinal problems together with lack of generic skills and displays high loadings on the items 'internet contents are harmful', 'internet contents are not useful', 'nobody showed me' and 'not good in reading and writing'.
- Factor 2 (explaining 15% of variance) has high loadings on the item tapping on lack of computer skills as well as the item 'family member uses internet for me'.

Both factors are linked to non-use; however, as in Austria, the attitudinal factor is linked to willingness to learn: persons with negative attitudes are less likely to be willing to learn as compared to persons without negative attitudes. In total, not more than 26% of Finnish respondents that are not familiar with the use of the internet say they are interested to learn. Negative attitudes vis-à-vis the internet are primarily a function of age and education.

Increasing the acceptance and use of e-government will also necessitate various measures. A factor analysis of the question (addressed to users) assessing the advantages and drawbacks of e-government produced five factors:

- The first factor (explaining 29% of variance) displays high loadings on the items 'not aware of e-government addresses', and 'not aware of e-government services'. This dimension taps on the problem of awareness.
- The second factor (17% of variance) taps on the barriers associated with user-friendliness, displaying high loadings on 'official language is too complicated' and 'navigation is difficult'.
- The third factor (12% of variance) taps on the need (still) of several users to have human or online support available.
- The fourth factor (9% of variance) displays high loadings on the two items dealing with safety / security and the problem of viruses.
- Finally, the fifth factor (9% of variance) taps on the problem of speakers that are not proficient in the national language.

Measures or programmes in the above areas will increase the use of e-government among low-status Finnish citizens, but probably also more generally.

3.4 Germany

73% of the German sample of respondents to the ELOST survey are familiar with the use of the internet. This is a very different result from that observed in the previous three countries (and also in Israel: see next section), and to be explained by the different sampling approach adopted in the German case. To reiterate, in Germany the survey targeted to a great extent unemployed people registered with the German Labour Office or recipients of social assistance. The latter uses the internet extensively to assist with job search and placements. Unlike the Finnish sample where unemployed persons are also over-represented, the German sample is skewed towards younger unemployed (i.e. not older than 34) hence also the higher rate of internet familiarity. The younger age of the German sample has in part also to do with the fact that the interviews were carried out face-to-face.

Table 3.4.1 compares users and non-users according to a socio-demographic criteria.

Table 3.4.1. Socio-demographic characteristics acc. to internet familiarity (in %)		
	<i>Familiar with internet</i>	<i>Not familiar</i>
Gender		
Male	49	38
Female	51	62
Age		
15-34	62	19
35-54	28	43
55+	10	38
Education		
Low	55	42
Medium	21	49
High	24	9
HH type		
Live alone /w. spouse	53	65
Live in family w. children	32	33
Other arrangement	15	2
Activity status		
Working	18	16
Inactive	77	53
Retired	5	31
Income		
Up to € 750	54	54
750 to just under 1250	30	26
1250 plus	16	20
Total (N)	182	68

The group of respondents that are familiar with the use of the internet is comprised primarily by young unemployed of different levels of educational achievement. The non-user group is comprised mainly by older retired women of low and medium educational background.

3.4.1 Reasons for no / low use of the internet

Table 3.4.2 shows the answers to the question addressed to non-users about the reasons for not being familiar with the use of the internet:

Table 3.4.2 Reasons for no or low internet use (in %)	
Do not need internet	57
Difficulty using computer	50
Family member uses computer for me	47
Cannot afford computer	43
Nobody ever showed me how ...	39
Internet contents are not useful	19
Not very good at reading / writing	14
Internet contents are harmful	7
Total (N)	68

Only very few of the non-users among German respondents is negatively inclined to the internet: 7% find that internet contents are harmful while 19% think that internet contents are not useful. Six out of ten think they do not need the internet. Four out of ten mention affordability as a main reason for not using the internet.

3.4.2 Awareness of commercial and e-government internet services

Table 3.4.3 compares the awareness of commercial internet services between users and non-users.

Awareness of the availability of commercial services on the internet is quite diffused, approaching 100 per cent for users; and, in most cases, above 60 per cent for non-users.

The knowledge about e-government services is lower but still very high (table 3.4.4).

Table 3.4.3 Awareness of internet services (in %)		
	Users	Non-users
Communication via e-mail	99	77
Using banking services	98	65
Downloading games / music	98	68
Find info about goods / services	97	71
Reading newspapers / listen radio	97	46
Shopping	97	64
Use for travel / accommodation	97	66
Exchange chat rooms / online forums	96	57
Looking for job	96	76
Using health services	73	46
Taking educational courses	72	37
Total (N)	182	68

Table 3.4.4 Awareness of e-government services (in %)		
	Users	Non-users
Using job services	94	89
Obtain info from public authorities	85	63
Obtain official forms	85	46
Submit official forms	73	38
Search for books in public libraries	73	37
Interact with tax authorities	73	67
Making payments to public authorities	49	35
Request various certificates	40	33
Registering change of address	38	29
Car registration	33	32
Declarations to police	33	36
Total (N)	182	68

3.4.3 Awareness vs. use

The highest ratio between awareness and use is observed for the use of the internet for finding information about goods and services as well as for looking for a job. In both of these cases, the majority of those respondents saying they are aware of the service also report being regular users.

The opposite is the case for e-learning (using the internet for educational courses) where only eight per cent of those saying they are aware of this possibility also report using it; similar findings are observed for e-health (using the internet for obtaining information on health and health services).

Turning to e-government, we find that around six of ten respondents saying they are aware of available electronic job services also use them; a similar ratio is observed with regard to obtaining information about public authorities and specifically for downloading official forms. At the other end, less than one fifth of those being aware of the possibility of submitting official forms through the internet also use the service; similarly with the tax office.

Table 3.4.5 Awareness and use of commercial internet services (in %)		
	Aware	Aware and regularly use
Communication via e-mail	99	86
Using banking services	98	49
Downloading games / music	98	47
Find info about goods / services	97	79
Reading newspapers / listen radio	97	48
Shopping	97	43
Use for travel / accommodation	97	44
Exchange chat rooms / online forums	96	37
Looking for job	96	64
Using health services	73	18
Taking educational courses	72	6
Total (N)	182	182

Table 3.4.6 Awareness and use of e-government services (in %)		
	Aware	Aware and regularly use
Using job services	94	59
Obtain info from public authorities	85	57
Obtain official forms	85	43
Submit official forms	73	14
Search for books in public libraries	73	36
Interact with tax authorities	73	15
Making payments to public authorities	49	14
Request various certificates	40	3
Registering change of address	38	8
Car registration	33	2
Declarations to police	33	2
Total (N)	182	182

Even though the use of e-government service cannot be expected to ever reach the levels observed for commercial internet services, improvement from the present state is possible. This is especially the case for the use of the internet for submitting official forms, requesting various certificates or interacting with tax authorities.

3.4.4 Attitudes to the internet and e-government

Eight out of ten non-users associate the internet with the need for advanced computer skills, expense, time and lack of safety (table 3.4.7).

Nine out of ten respondents are concerned about security, privacy and confidentiality. This is a remarkably high share, even higher than in any other country. Familiarity is however here clearly the explanatory variable: less than one third of those familiar with the use of the internet answering to a similar question with reference to e-government (table 3.4.9) are concerned about privacy and security.

Table 3.4.7 Statements about internet; agreement levels (in %) among non-users	
The Internet ... I agree completely / somewhat	
Is not secure	88
Represents a problem for privacy and confidentiality	88
Requires advanced computer skills	80
Too expensive to use	76
Too time consuming	65
Not easy to get access to	57
Lack useful information	32
Opens new prospects for learning / gathering information	96
Opens new prospects for communication	95
Opens new prospects for democracy	67
Total (N)	68

Table 3.4.8 Statements about e-government; agreement levels (in %) among users	
E-government ... I agree completely / somewhat	
Make it possible to deal with authorities at convenient locations	96
Make it possible to deal with authorities at convenient times	95
Faster than traditional means	93
Not as reliable as traditional means	56
Not as safe as traditional means	55
Requires special equipment of software	47
Difficult to use without online support	41
Reduces mistakes of public authorities	40
Will represent the only way to deal with authorities in future	39
More complicated to use than traditional means	39
Difficult to use without human support	38
Total (N)	182

As in other countries, German respondents that are familiar with the internet welcome e-government as a possibility for dealing with public authorities faster, at convenient times and convenient locations. However, they would not opt for e-government voluntarily: six out of ten continue to think that, in comparison with traditional means, e-government is not as reliable or as safe, while every second respondent laments the necessity (perceived) for special equipment.

The overwhelming majority (97%) prefer personal communication, the telephone (92%) or the post (86%). Similar results are observed among older non-users: the respective percentages are 100 (personal communication), 73 (phone) and 77 (post).

3.4.5 Barriers to e-government

Asked to assess the barriers to e-government, German respondents mention principally the lack of (human) support and the complexity of the official language. Close to every second respondent reports these problems. Every fourth respondent is worried about connections not being secure and about not having the necessary skills to use the service available. Navigation is a problem of around 30 per cent of the respondents.

Table 3.4.9 Barriers to e-government; agreement levels (in %) among users	
No human support available	45
Language used by officials difficult to understand	44
Not aware of Web Site addresses	41
Not aware of e-government	34
Find it difficult to navigate	32
No on-line support available	28
Worried about connections not being secure	27
Afraid of possible viruses	26
Do not know how to use the service	25
No possibility to print out forms	11
Not fluent in German	3
Font of letters is too small	7
Total (N)	182

The German sample of familiar internet users is bigger than that in other countries. This allows us to carry out some more detailed analyses about the socio-economic profile of the above barriers. This shows that the problems reported about the complexity of official language as well as safety and security are, in part, explained by age. Younger respondents are significantly less likely to report these problems. This is, however, not the case for the complaints about the absence of human support. This is a common complaint equally among young and older respondents.

3.4.6 Targets for policy

Three factors explain the lack of access and non-use of the internet. The establishment of these factors was based on a factor analysis of the responses to the question addressed to non-users, about not using the internet (see also table 3.4.1):

- Factor 1 (explaining 27% of variance) taps on the problem of lack of skills – both technical and generic. It has high loadings on the items ‘difficulty using computer’ and ‘difficulty with reading and writing’ – a total of 8 per cent of respondents report problems with skills.
- Factor 2 (explaining 17% of variance) is an attitudinal dimension and concerns those respondents that are worried about the possible harmful effects of the internet and/or think the latter are not useful – a total of 6 per cent report problems with attitudes.
- Finally factor 3 (explaining 15% of variance) is a factor of affordability – 43 per cent mention this as a problem.

Like in the other ELOST countries, attitudes are also linked to willingness to learn in statistically significant terms.

Policies to increase the acceptability and use of e-government must focus on the following four areas:

- Improving navigation and/or widening the offer for human and/or on-line support (factor 1 explaining 22% of variance)
- Improving security and virus-free connections or supplying information on this issue (14% of variance)
- Raising awareness about e-government as such and relevant addresses (10% of variance)
- Improving the offer in the languages of major migrant groups (10% of variance).

The above resulted from a factor analysis of the question addressed to internet users about their assessment of e-government sites / procedures. The four-factor solution (principal components; varimax rotation) explained cumulatively 58% of the variance.

3.5 Israel

The ELOST survey in Israel covers 261 respondents of low socio-economic status. 26 per cent report familiarity with the use of the internet. Table 3.5.1 compares users and non-users.

Table 3.5.1. Socio-demographic characteristics acc. to internet familiarity (in %)		
	<i>Familiar with internet</i>	<i>Not familiar</i>
Gender		
Male	45	43
Female	55	57
Age		
15-34	56	19
35-54	34	39
55+	10	42
Education		
Low	2	21
Medium	64	64
High	34	15
HH type		
Live alone /w. spouse	18	38
Live in family w. children	80	58
Other arrangement	2	4
Activity status		
Working	52	29
Inactive	37	40
Retired	11	31
Income		
Up to € 750	58	73
750 to just under 1250	42	27
1250 plus	0	0
Total (N)	67	194

The two groups differ (statistically) significantly with regard to age (familiar users are younger), education (non-users are more likely to be of low educational background), activity status (more working respondents among familiar users), income (non-users are poorer) and household type (non-users are slightly less likely to live in families). Age and education are the stronger discriminatory variables between the two groups.

3.5.1 Reasons for no / low use of the internet

Affordability is the reason most frequently mentioned as a reason for no internet access (and use). 26 per cent of non-users say they cannot afford to have a

computer at home. The lack of technical skills ranks second with 20 per cent (table 3.5.2).

Cannot afford computer	26
Difficulty using computer	20
Do not need internet	19
Internet contents are harmful	13
Family member uses computer for me	9
Nobody ever showed me how ...	9
Internet contents are not useful	8
Not very good at reading / writing	4
Total (N)	194

Overall however, and as compared to other countries, the factors listed in the ELOST questionnaire as possibly explaining lack of access and use do not display as high an uptake as in other countries. A factor analysis of the above items in order to reveal key dimensions explaining no use did, therefore, not produce any useful results.

On the other hand, the willingness to learn the use of the internet is higher among Israeli non-users as compared to most European non-users: 43 per cent of the respondents say they would be interested to learn. This compares with 24, 26 and 27 per cent in France, Finland and Austria respectively and is only lower than the 60% of non-users in Germany also saying they are interested in learning internet use. These appear to be a country specific results.

3.5.2 Awareness of commercial internet and e-government services

Among users the highest awareness is displayed with reference to banking services, using the internet for downloading games / music and also for communication. Among non-users the ranking is somewhat different: product-oriented services are more known, as well as the use of the internet for finding a job (table 3.5.3).

Turning to e-government, we find that two e-government services are equally or more known among non-users than users, namely, electronic job services, and the use of the internet in public libraries. Users are more likely to know that it is possible to use the internet to download or submit official forms and for making payments to public authorities. The use of the internet for interacting with tax authorities is not as widely known, again different than in other countries participating in the ELOST survey.

	Users	Non-users
Using banking services	91	59
Downloading games / music	91	68
Communication via e-mail	89	60
Reading newspapers / listen radio	85	57
Find info about goods / services	83	65
Use for travel / accommodation	79	59
Exchange chat rooms / online forums	68	38
Looking for job	67	60
Taking educational courses	64	41
Using health services	59	41
Shopping	NA	NA
Total (N)	67	194

	Users	Non-users
Obtain official forms	67	30
Obtain info from public authorities	61	38
Making payments to public authorities	56	38
Search for books in public libraries	55	55
Submit official forms	52	32
Using job services	51	55
Request various certificates	49	29
Interact with tax authorities	41	30
Car registration	35	18
Registering change of address	32	18
Declarations to police	23	0
Total (N)	67	194

The awareness of e-government is at significant lower levels than the awareness of commercial internet services. This is especially the case for non-users.

3.5.3 Awareness vs. use

The use of e-government services seriously lacks behind the levels of awareness. With regard to commercial internet services, the ratio of use to awareness ranges from 1:2 to 1:3. It is lower in the case of e-government, ranging from 1:5 to 1:3 (tables 3.5.5 and 3.5.6).

Table 3.5.5 Awareness and use of commercial internet services (in %)		
	Aware	Aware and regularly use
Using banking services	91	55
Downloading games / music	91	53
Communication via e-mail	89	53
Reading newspapers / listen radio	85	52
Find info about goods / services	83	50
Use for travel / accommodation	79	21
Exchange chat rooms / online forums	68	29
Looking for job	67	33
Taking educational courses	64	24
Using health services	59	20
Shopping	NA	NA
Total (N)	67	67

Table 3.5.6 Awareness and use of e-government services (in %)		
	Aware	Aware and regularly use
Obtain official forms	67	30
Obtain info from public authorities	61	27
Making payments to public authorities	56	18
Search for books in public libraries	55	30
Submit official forms	52	18
Using job services	51	12
Request various certificates	49	11
Interact with tax authorities	41	9
Car registration	35	3
Registering change of address	32	6
Declarations to police	23	5
Total (N)	67	67

In the case of commercial internet services, the highest rate of use is observed for banking services and communication (similarly to awareness). In the case of e-government, the highest rates of use are found for the use of the internet in public libraries and for obtaining official forms from the Web Sites of public authorities.

3.5.4 Attitudes to internet and e-government

Nine out of ten Israeli non-users of the internet agree completely or somewhat with the statement that the internet represents a problem for privacy and confidentiality; eight out of ten are concerned about security. In no other country is concern about the internet with regard to privacy and security as high as in Israel. Another specific finding for Israel in relation to this question is the large numbers of respondents refusing to answer or answering 'don't know'. For some statements the non-response rate is around 25%. This is the case for the question of affordability (too expensive to use), security (internet is not secure) and privacy (represents a problem for privacy and confidentiality).

Table 3.5.7 Statements about internet; agreement levels (in %) among non-users	
The Internet ... I agree completely / somewhat	
Represents a problem for privacy and confidentiality	92
Too time consuming	87
Is not secure	79
Too expensive to use	77
Requires advanced computer skills	73
Not easy to get access to	54
Lack useful information	42
Opens new prospects for communication	96
Opens new prospects for learning / gathering information	94
Opens new prospects for democracy	81
Total (N)	194

Table 3.5.8 Statements about e-government; agreement levels (in %) among users	
E-government ... I agree completely / somewhat	
Make it possible to deal with authorities at convenient times	79
Make it possible to deal with authorities at convenient locations	75
Difficult to use without online support	69
Not as safe as traditional means	63
Reduces mistakes of public authorities	63
Faster than traditional means	63
Not as reliable as traditional means	62
Requires special equipment of software	61
Difficult to use without human support	60
More complicated to use than traditional means	58
Will represent the only way to deal with authorities in future	48
Total (N)	194

Security is also an issue for e-government actual or would-be users: six out of ten of familiar internet users think that e-government is not as safe as traditional means of interaction with public authorities; a similar proportion is concerned that it might not be as reliable. This is despite the fact that eight out of ten respondents welcome e-government for providing the opportunity to deal with authorities at more convenient times and locations.

The majority of Israeli citizens prefers to interact with public authorities by phone (65%). Unlike in other countries, only one thirds opts for personal communication. (The respective figures for non-users are 72 and 42 per cent).

3.5.5 Barriers to e-government

Concerns about security as well as about viruses rank high among the barriers to the more regular use of e-government among Israeli respondents. Lack of awareness is equally diffused.

Not aware of e-government	60
Do not know how to use the service	60
Worried about connections not being secure	60
No human support available	59
No on-line support available	58
Afraid of possible viruses	57
Not aware of Web Site addresses	53
No possibility to print out forms	39
Language used by officials difficult to understand	37
Not fluent in Hebrew	33
Find it difficult to navigate	31
Font of letters is too small	21
Total (N)	67

Technical problems such as difficulties with navigation or user-unfriendly writing format is reported by two to three out of ten respondents; the complexity of official language by four out of ten respondents.

3.5.6 Targets for policy

The answers to question 39 of the questionnaire (variables 173 to 179) concerning attitudes to the internet among non-users (see table 3.5.7) were submitted to a factor analysis for the purpose of revealing the dimensions that

explain non-use. A three factor solution emerged explaining 60% of the variance:

- By far the most significant factor (26% of variance) is that tapping on the dimension of security / privacy / confidentiality.
- A second factor (19% of variance) concerns affordability.
- A third factor (15% of variance) taps on the problem of lack of computer skills.

Overcoming e-exclusion in Israel will necessitate a concerted effort towards greater security and privacy protection on the internet – more than in other countries.

A similar problem is faced with reference to e-government. The factor analysis of question Q14 addressed to familiar internet users about their experiences with e-government produces a four-factor solution (explaining 61% of variance). The first dimension reveals the problem of those persons with lack of proficiency in Hebrew; the second dimension is about the need for either human or online support; the third dimension is about the lack of awareness and the fourth dimension about safety and security.

3.6 Bulgaria

The survey in Bulgaria covered 350 persons, of whom 47% reported familiarity with the internet. Among non-users the item non-response rates on some questions is significantly high. This implies that the results reported below on non-users should also be treated with caution.

Users and non-users differ as in other countries with regard to age, educational achievement and socio-economic status. The income, gender and household type distributions of the two groups do not differ significantly.

Table 3.6.1. Socio-demographic characteristics acc. to internet familiarity (in %)		
	<i>Familiar with internet</i>	<i>Not familiar</i>
Gender		
Male	57	51
Female	43	49
Age		
15-34	69	31
35-54	27	43
55+	4	26
Education		
Low	24	57
Medium	49	28
High	27	15
HH type		
Live alone /w. spouse	31	25
Live in family w. children	60	64
Other arrangement	9	11
Activity status		
Working	60	53
Inactive	40	34
Retired	0	13
Income		
Up to € 750	85	93
750 to just under 1250	7	3
1250 plus	8	4
Total (N)	165	185

3.6.1 Reasons for no / low use of the internet

The question addressed to those not familiar with the internet and tapping on possible reasons for this lack of access and/or non-use displayed very high rates of non-response. Non-response to categories of this question ranged from 20% to just below or over 50% (items with *). These high item non-response rates reflect the widespread lack of knowledge about the internet in Bulgaria.

Table 3.6.2 Reasons for no or low internet use (in %)	
Difficulty using computer	85
Cannot afford computer	77
Nobody ever showed me how ...	75
Do not need internet*	66
Not very good at reading / writing*	39
Family member uses computer for me*	37
Internet contents are not useful*	37
Internet contents are harmful*	28
Total (N)	185

85 per cent of non-users say they have difficulties using the computer, while 77 per cent state affordability problems. Negative attitudes are also quite widespread. It is especially the attitude-related questions that display high non-response rates – probably because they could not judge either the harmfulness or usefulness of the internet.

3.6.2 Awareness of commercial internet and e-government services

Table 3.6.3 displays the levels of awareness of commercial internet services among users and non-users. Table 3.6.4 compares awareness levels with respect to e-government.

Awareness of commercial internet services is very high, especially among users. Insofar as non-users are concerned, high awareness is observed for communication via e-mail. Otherwise, commercial internet services are known by every second non-user at most. The possibility to use the internet to look for a job or obtain an (information about) an educational course is only known to every third / every fourth non-user respectively.

	Users	Non-users
Communication via e-mail	100	73
Exchange chat rooms / online forums	100	48
Downloading games / music	98	55
Find info about goods / services	98	48
Reading newspapers / listen radio	92	30
Shopping	90	37
Looking for job	89	35
Use for travel / accommodation	85	27
Using banking services	80	26
Taking educational courses	74	23
Using health services	60	16
Total (N)	165	185

E-government is known especially in connection to downloading and submitting official forms and obtaining information from public authorities. Among non-users awareness is quite low: every second respondent says they are aware that it is possible to obtain information on public authorities using the internet; for all other services the levels of awareness are lower.

	Users	Non-users
Obtain official forms	74	41
Submit official forms	68	37
Obtain info from public authorities	66	48
Using job services	54	30
Interact with tax authorities	53	23
Making payments to public authorities	50	22
Search for books in public libraries	48	22
Request various certificates	33	12
Registering change of address	30	13
Car registration	25	12
Declarations to police	24	15
Total (N)	165	185

3.6.3 Awareness vs. use

The internet is used by most Bulgarians for communicating via e-mail or via chat rooms and online forums as well as for finding out information about goods and services. It is significantly less frequently used for shopping (17%) for arranging travel (20%) or for banking (19%).

The use of e-government services (table 3.6.6) is even lower. Less than one third of Bulgarian citizens with familiarity of the internet use the latter for downloading official forms, every fourth for submitting them. The internet is also very little used for obtaining information from public authorities (15%) despite the fact that the possibility of this service is known to over two thirds of the respondents.

Table 3.6.5 Awareness and use of commercial internet services (in %)		
	Aware	Aware and regularly use
Communication via e-mail	100	88
Exchange chat rooms / online forums	100	72
Downloading games / music	98	64
Find info about goods / services	98	74
Reading newspapers / listen radio	92	55
Shopping	90	17
Looking for job	89	27
Use for travel / accommodation	85	20
Using banking services	80	19
Taking educational courses	74	12
Using health services	60	10
Total (N)	185	185

Table 3.6.6 Awareness and use of e-government services (in %)		
	Aware	Aware and regularly use
Obtain official forms	74	28
Submit official forms	68	20
Obtain info from public authorities	66	15
Using job services	54	8
Interact with tax authorities	53	6
Making payments to public authorities	50	10
Search for books in public libraries	48	15
Request various certificates	33	1
Registering change of address	30	4
Car registration	25	4
Declarations to police	24	4
Total (N)	185	185

Bulgarian citizens continue to prefer communication by phone or in person for getting in contact with public authorities. The shares stating this are 66 and 61 per cent respectively among internet non-users and 73 and 69 per cent among users.

3.6.4 Attitudes to internet and e-government

Negative attitudes vis-à-vis the internet predominate among non-users while users are equally negatively inclined towards e-government.

Table 3.6.7 displays the responses of non-users to a list of statements about the internet. Between eight and nine out of ten respondents consider that the use of the internet requires advanced computer skills, that it is not easy to get access to and too expensive to use. Concerns about security and privacy are also quite widespread: every seventh or eighth (out of ten) respondents admits to such worries at least occasionally. At the same time the overwhelming majority believes that the internet opens new prospects for communication, learning and politics.

Table 3.6.7 Statements about internet; agreement levels (in %) among non-users	
The Internet ... I agree completely / somewhat	
Requires advanced computer skills	93
Not easy to get access to	85
Too expensive to use	84
Too time consuming	79
Is not secure	77
Represents a problem for privacy and confidentiality	75
Lack useful information	44
Opens new prospects for communication	88
Opens new prospects for learning / gathering information	85
Opens new prospects for democracy	72
Total (N)	185

Table 3.6.8 Statements about e-government; agreement levels (in %) among users	
E-government ... I agree completely / somewhat	
Make it possible to deal with authorities at convenient times	85
Make it possible to deal with authorities at convenient locations	84
Faster than traditional means	83
Difficult to use without online support	80
Reduces mistakes of public authorities	67
More complicated to use than traditional means	67
Difficult to use without human support	65
Will represent the only way to deal with authorities in future	63
Requires special equipment of software	62
Not as safe as traditional means	59
Not as reliable as traditional means	N/A
Total (N)	165

Similar trends can be observed with regard to e-government (table 3.6.8). Among internet users there is wide recognition that e-government is potentially a better means for interacting with public authorities (faster, more convenient). However an equal number find it difficult to use without on-line or human support, consider it complicated and possibly unsafe.

3.6.5 Barriers to e-government

The answers to the question on barriers to e-government suggests that the main barrier to e-government in Bulgaria at present is lack of awareness and knowledge about its possible usefulness (table 3.6.9).

Table 3.6.9 Barriers to e-government; agreement levels (in %) among users	
Not aware of e-government	74
Do not know how to use the service	65
Not aware of Web Site addresses	49
No human support available	41
No possibility to print out forms	39
Afraid of possible viruses	38
Find it difficult to navigate	38
No on-line support available	32
Worried about connections not being secure	30
Language used by officials difficult to understand	16
Font of letters is too small	7
Not fluent in Bulgarian	5
Total (N)	165

Unlike in many other countries, technical and user-friendliness related dimensions are not as serious a concern; however this might also simply reflect assumptions rather than real assessments, considering that three out of four respondents admit not to have ever heard of e-government.

3.6.6 Targets for policy

Providing financial support and training courses represent the priorities for Bulgaria with regard to e-inclusion.

With respect to e-government, much still needs to be done with respect to improving the awareness of e-government services but also their quality. A factor analysis on the items of the question on the barriers to e-government (addressed to internet users) revealed a four-factor solution explaining 64 per cent of the variance:

The strongest factor (28% of variance) displayed high loadings on the first three items of table 3.6.9. This factor taps on the lack of awareness dimension.

The second factor (14% of variance) has strong loadings on those statements that deal with the lack of support as well as the statement dealing with navigation difficulties. Obviously those users that are more likely to demand for support are those facing difficulties navigating through relevant sites. This suggests that the quality of the sites needs improvement.

The third dimension (12% of variance) is that of security and safety, while the fourth factor taps on user-friendliness in terms of font size and language (9% of variance).

3.7 Synthesis

The ELOST survey carried out in six European countries has confirmed some common trends with regard to the situation of low socio-economic status groups vis-à-vis the internet and e-government.

E-exclusion is today a problem primarily of age and education in conjunction with constraints in terms of affordability and the lack of technical skills. Older and/or low-educated respondents are more likely to be excluded from the new information age, especially when lacking technical skills and the money for obtaining these, or the necessary infrastructure.

Negative attitudes about the internet (generally or more specifically in terms of its potential harmful and non-useful contents) also impact on the willingness to learn how to use the new technologies but are primarily to be found among older respondents. 'Older' in this context refers not only to retired citizens that are over 65 (for whom lack of interest to learn is probably a more general attribute and not one relating to new technologies only) but also to middle-age inactive or unemployed persons. Negative attitudes might cause e-exclusion but may also be the result of continued exclusion, i.e. they might be used to justify a certain state of affairs in the classical cognitive dissonance manner.

Affordability is often mentioned as a barrier to e-inclusion: in generic questions on the use of new technologies, around 70 per cent of respondents in most countries mention this as a possible barrier. However when asked to report on their personal reasons for not having access to the internet, a much lower rate mentions this as a barrier with the exception of Bulgarians. Affordability is a problem for 77% of Bulgarian non-users, 50% of the French, 43% of the German, 40% of the Austrian but only 26 and 17 per cent of the Israeli and Finnish non-users respectively.

With regard to technical skills the gap between general assessments and those relating to one's own person are not as wide. Indeed, in France, Bulgaria and Austria we find a close to equivalent number of persons stating technical skills as a general barrier to e-inclusion, and as a specific barrier for themselves to explain lack of access and no or low use of the internet. In contrast, in Israel, Germany and Finland about twice as many respondents assess this as a barrier in general as compared to themselves.

Turning to e-government, in several countries and most notably in Austria, Finland and Germany, the levels of awareness observed are quite high, even among non-users. This suggests that e-government awareness campaigns have had their desired impact. However, among internet users, the use of e-government still lags significantly behind both awareness levels and the average use of commercial internet services. The explanations identified for this low use of e-government are similar across countries and relate primarily to the quality of the Web Sites, on the one hand, and the lack of support, on the other hand. Improvements on these dimensions are likely to increase the use of e-government but also improve the image of public authorities considering that, overall, there is overwhelming agreement among our survey respondents that the new communication technologies open new prospects for communication, learning and politics.

4 Qualitative insights from the focus groups

Combining quantitative and qualitative sources of information and analytical methods contributes to the knowledge base from which to develop policy recommendations. Moreover, qualitative in-depth interviews or discussion groups provide insights that can assist to better interpret quantitative survey results. Starting from this realization, the ELOST project team decided to organize focus groups to complement the ELOST quantitative survey.

Focus groups were organized both before and after the survey and, like the survey, targeted low-income / low-status citizens in the participating countries. These were mainly recruited with the help of social agencies or unemployment offices.

The first focus group meetings were designed to take place prior to the survey, and had as main goal to discuss with participants their experiences with the internet and e-government and find out the reasons for no or low levels of use. The participants of the first round of focus groups were also administered the questionnaire for the survey; their input was used to refine the questions.

The second round of focus group meetings were conceptualized as a forum for discussing the survey results and, on this basis, developing recommendations. Ideally the participants to these second round focus groups should have been the same as those in the first; however, this was possible only in a few cases.

The guidelines provided to the research teams in the different countries concerning recruitment and organization, as well as the agenda of the focus group meetings were presented in Deliverable 3.1. These guidelines were flexible and teams were allowed to diverge from them to do justice to national specificities or taking into account local constraints.

In the subsequent sections we summarize the focus group results for each participating country. In the concluding section we compare these and reflect briefly on the implications of our findings for the results of the ELOST survey reported in the previous chapter.

4.1 Austria

Two focus groups were organized in Austria, the first in November 2006, the second in June 2007. Participants were recruited with the help of social work agencies and represented persons living in low income households. Ten persons participated at the first focus group, six at the second.

Three of the ten participants were older (55+) retired or inactive women; another three were younger (35-45) women that were unemployed but actively looking for a job; two were adolescent men still in education; and two were men in their mid-thirties: one was working, the other living on social assistance. The second focus group meeting was attended by the male adolescents, two of the older retired women and one of the unemployed women.

All younger unemployed women had learned to use the internet through a course provided by the Labour Office; the two young men were familiar users as a result of school education; while the older women and also the men had little familiarity with the use of the internet, relying instead on family members or friends but, nevertheless, motivated to learn. Part of the first focus group meeting was devoted to demonstrating the use of the internet and exploring various e-government sites. This demonstration exercise showed that familiarity with the use of the internet was only really a characteristic of the adolescent members of the group; the familiarity of the three unemployed women was lower.

Besides using it as an opportunity to explore the internet and e-government, the first focus group meeting served to explore the experiences made by participants with the internet / e-government and the attitudes they had towards both. The second focus group meeting six months later was used to present the preliminary survey findings and discuss them and, on this basis, prepare recommendations.

The main findings of the Austrian focus groups can be summarized as follows:

4.1.1 On lack of access

Participants expressed concern about costs associated with access and use of the internet; security (including the problem of viruses) and possible harmful contents. The latter was especially a concern of the older female participants: pornographic sites but, especially, sites with violent contents were named as problematic. Costs were also a problem especially for the older participants; the discussion revealed that information about the real costs of internet access and use was in part lacking. As with mobile phones, the availability of different providers has contributed to the lack of transparency about internet costs. This acts to deter several non-users from gaining access to the internet.

The safety / security issue was linked to several misperceptions. Participants were worried about the safety of the internet mainly because they did not know how to best protect themselves from viruses; and, again, they felt that the available information (and related costs) were neither transparent nor obvious.

4.1.2 On e-government

The demonstration of various e-government sites and subsequent discussion of these revealed the following barriers:

The user-friendliness of sites is an issue with regard to the size of fonts, navigation facilities and the complexity of official language. Navigation is not a problem for young users who have grown up with the use of the internet; but it is a major barrier for all others: navigating through an Internet site is a skill that has to be learned; alternatively navigation facilities have to be improved – often it suffices to avoid overloading front pages with too much text. Long sentences with complex constructions should also be avoided; as much as terms that are not explained in a glossary.

Another problem with e-government that is often overlooked is the way in which many government sites rely on English terms. The 'gv' ending that is used in Austria for indicating a government site is itself derived from English (government).

The majority of the participants prefers personal communication to get in contact with public authorities. The phone is not considered a real alternative.

Public access internet points had been encountered by some participants but judged as more relevant for tourists than for citizens and primarily useful for using the map or finding a telephone number or an address. The idea of using the internet standing on the street was not judged as useful on the whole. Internet cafés were thought a better option.

4.1.3 Feedback to ELOST survey results

The Austrian focus group participants provided the following feedback to the ELOST survey results:

The issue of costs is primarily one of costs of access rather than the costs for a personal computer. The costs for a PC represent a one-time investment and are transparent. This is not the case for internet access and use costs.

Negative attitudes to the use of internet and problems of affordability often overlap and are both associated to age. Participants reported knowing of many acquaintances who were elderly and thought negatively about the internet.

At least one participant was of the opinion that caution is needed when interpreting the finding that several non-users say they do not need the internet.

Many survey respondents might prefer to state they do not need something rather than admitting that they lack either the skills or the money or both.

4.1.4 Recommendations

General recommendations included:

1. The construction of computers and operating systems in a more flexible way so as not to need a new computer every two to three years for keeping up with technical developments.
2. Providing better information on how to avoid aggressive (violent) Web sites. (A rather innovative proposal in this respect was to establish sites on the internet allowing people to express violence or negative views; but restrain the latter's use only on those sites).
3. Improving the transparency of the pricing information (both for internet use and mobile phones).

Specific recommendations about e-government were as follows:

1. Advertise e-government sites more on television and use the opportunity to inform people about contents and opportunities offered.
2. Integrate learning modules on e-government sites in the form of games – this relates to both the contents of the sites and navigation skills.
3. Develop better search functions to facilitate navigation
4. Integrate help (ideally someone that can be called up to provide help, not just on-line help);
5. Provide training: for instance in community centres or libraries where there are internet sites there should also be persons that can provide assistance with filling-in forms etc. A similar thing could be done at old-people's homes.
6. Establish or promote computer flea-markets for buying cheaper used computers (that work).

4.2 France

One focus group was organized in France. This took place in June 2007 at one of the premises of the Public Access Forums (Espaces public numériques

ENP), a programme set up by the City of Paris to support computer and internet training among unemployed persons and persons residing in under-privileged areas.

The focus group discussion attracted 11 participants: the majority were unemployed persons of migrant origin and of mixed ages (youngest 17, oldest 60). One participant was a retired professional working in a voluntary organization dealing with the re-integration into the labour market; another was an activist in the field of e-inclusion working for various non-governmental organizations; a third was a student. All focus group participants had attended training courses provided by ENP, thus were familiar with the use of computers and the internet but not of e-government. The meeting was also attended by the City of Paris coordinator of the ENP programme and the local coordinator of the specific forum in Belleville at which the meeting took place.

The meeting lasted a full day beginning at 11.00 and lasting till 17.00 with a lunch break. Participants received 50 Euro to reimburse expenses for their participation.

4.2.1 On e-government

Very few participants were familiar with e-government. None, for instance, knew the www.monservicepublic.fr site. They reported finding the electronic presence of public authorities 'arid, too difficult to use, complex and far too abstract'. At the same time they admitted that this might in part be due to their lack of knowledge. It also became soon clear that negative attitudes to e-government in part reflected negative attitudes to government authorities as a result of negative experiences made following the official channel for various purposes. Participants were also convinced that a key problem in France is the lack of familiarity with the use of the internet and e-government among civil servants themselves.

Dealing with public authorities should be done in person. This was generally advocated. Personal communication, it was argued, entailed at least the option or possibility of coming across a 'reasonably-minded' civil servant who would be helpful and who could be trusted to see that a citizen's application would receive its due attention. E-government rendered everything impersonal and thus made it less likely that things would be completed in a reliable manner and in the citizens' favour. Therefore, even with e-government it should be possible to establish and maintain a personal contact with persons that would be there to help – less with technical issues but more with regard to one's case.

In this context, security and data protection was raised as an important issue. A few participants noted that this was made worse by alert messages sent

automatically when using specific sites (for instance for completing forms or sending payments) for too long.

Another problem of e-government sites is their complexity: they are 'loaded' with information upfront; the latter is written in a language that is difficult to understand; no multi-lingual sites / assistance is available.

4.2.2 Recommendations

The following recommendations were made by the participants of the French focus group:

Public access points were judged as good; however more of them would be necessary. These should not stand in the street but in public spaces. One idea in this respect was to establish an e-government house in each district with computers for free use and personnel to assist with their use for e-government purposes. E-government houses but also other public spaces with public access internet points should, in addition, have printing facilities.

There should be more training personnel made available to teach people the use of computers and the internet.

Users of e-government should be given the opportunity to ask questions (by phone or by e-mail) and these questions should also be acknowledged and answered. There should also be a user forum at a central e-government site to enable the provision of feedback, recommendations, critiques etc.

4.3 Finland

In Finland two sets of focus group discussions took place in each of the two phases of the project. Only three participants participated in both rounds. The four focus groups were as follows:

- a. The first took place at the project centre of the Blue Cross in October 2006 and attracted five participants, three women (middle-aged) and two men (one middle age, the other in his mid-thirties). Blue Cross is an organization assisting persons facing difficulties to re-integrate into the labour market. All of the participants had participated at a project entitled 'Towards Equal Life'. All participants were unemployed, four faced psychological problems.

- b. The second focus group meeting took place in November at the Finnish labour and unemployment office ETAPPI. All seven participants were unemployed of different ages, four men, three women.
- c. The third focus group took place in Witonen in March 2007 at a day centre for people with alcohol abuse problem and in search of a job. This attracted eight participants, four women, four men, the majority older than fifty.
- d. The last focus group meeting took place again in ETAPPI in June 2007, attracting seven unemployed persons of different ages, the majority women. Three of the participants of this group had also participated at the first ETAPPI focus group taking place in November 2006.

About half of the participants in the Finnish focus groups were somewhat or very familiar with the use of the internet.

The meetings' agendas were largely designed following the general guidelines: the first two groups were used to explore the familiarity and attitudes of respondents with the use of the internet and e-government; the two later groups for receiving feedback to the survey results and elaborating recommendations on how to improve the user-friendliness of e-government and e-inclusion more generally.

4.3.1 On e-inclusion

Two reasons were mentioned most frequently for lack of familiarity with the use of the internet, namely, lack of funds and lack of technical skills.

Affordability is a problem especially of unemployed persons. Both the equipment costs and those for regular access were judged as high and difficult to predict given the upgrades necessary to implement at regular intervals.

With regard to technical skills, participants were keen to point out that they required help with the installation of the computer and of specific programmes. One participant reported that she had bought a computer and not used it for over a year because she had nobody to help her with the installation.

4.3.2 On e-government

Finnish citizens participating in the ELOST focus groups tended to view e-government as a complementary service but not as one that could replace traditional means to interact with public authorities. Especially with reference to the interaction with the social insurance it was argued that forms had still to be

brought personally to the authorities, therefore there seemed to be no reason to download them and complete them in advance. A similar point was made with regard to applications for unemployment benefit which had to be renewed on a regular basis (among others, for reasons of monitoring and control). Personal contact was also judged as preferable because it allowed one to make a direct personal impression on the civil servant making decisions about citizen-specific demands.

Other participants pointed at their lack of awareness about e-government site addresses, how to use them and for what purpose. A couple of participants mentioned instead the overflow of information as a problem. Both appears to apply, often concurrently.

Public access internet points (available in public libraries and city councils) were judged as useful. A common complaint was the little time available to use them in conjunction with slow connections. Data security was perceived as a problem but not one with which focus group participants were especially concerned with for themselves.

4.3.3 Recommendations

The following recommendations were made for improving the user-friendliness and inclusion of e-government.

1. Compile and publish a booklet with Web addresses and short information about most important e-government sites. These booklets should be made available in public offices or even distributed by mail like the yearly phone books that are delivered to each household. The existence of the portal www.suomi.fi which, among others, includes information on Finnish e-government was not known to most participants. This suggests that information on e-government made available alone through the internet might not suffice to increase awareness.
2. Online services entailing ordering, filling-in or signing forms should incorporate an automatic acknowledgement form with a reference number allowing the tracing of documentation or for asking questions.
3. Institutions providing online services should also provide phone support for filling-in forms.

4.4 Germany

The first German focus group took place in Berlin at the end of October 2006 and comprised six participants. Four were men, two women, three over 50, two of low income, one unemployed, two of immigrant origin. The first focus group meeting was primarily used to comment on the questionnaire for the ELOST survey.

The second focus group meeting took place in July 2007 and attracted five of the six participants that had participated at the first meeting. This meeting was used to discuss the preliminary results of the ELOST survey and come up with recommendations.

4.4.1 On e-inclusion

In the opinion of the German participants to the ELOST focus groups, the main barrier to the use of the internet is affordability. The costs of PC equipment and having to pay for training courses were explicitly mentioned as relevant factors. Citizens not familiar with modern communication technologies were intimidated by the huge number of offers and felt they run the danger of spending lots of money on something possibly outdated or soon in need of upgrading. The existence of low-cost training courses was not known to participants.

4.4.2 On e-government

Lack of awareness, on the one hand, and the absence of full-blown reliable services, on the other, were judged as being responsible for the low uptake of e-government in Germany. German e-government services were assessed as being available more 'on paper' than in reality. They never work fully and do not replace the need to still contact governmental employees when questions arise, or in order to follow-up inquiries.

German respondents also thought that e-government entailed the risk of further entrenchment into privacy and confidentiality. For e-government to really work, a far greater and deeper overview of personal data would be necessary. This would render citizens more 'visible' and vulnerable.

In general, focus group participants doubted that an inclusive e-government would ever be possible. E-government, some participants argued, was not developed in order to bring government closer to citizens but rather in order to save costs by shifting work to the citizens and making the work of civil servants obsolete. This goal it had, however, still to achieve.

4.4.3 Recommendations

The following recommendations was made by German focus group participants for improving the offer and coverage of e-government:

1. Training possibilities should be improved, especially for young people. The general feeling about e-learning provided at school was that despite the latter's availability, many teachers were not up-to-date with modern technologies.
2. The offer of public access internet points should be expanded, including at internet cafés.
3. Financial advantages should be offered to e-government users: for instance, a reduction of fees for making certain applications.
4. Rather than investing alone in the infrastructure improvement of government services, money should be invested in organizations and associations working directly with citizens.

4.5 Israel

Two focus group meetings took place in Israel in July 2007. The first targeted adult persons, the second youngsters. Each group comprised eight participants. The group discussions lasted around two hours. The majority of the participants lived in low-income households; still most had a personal computer and internet access.

4.5.1 On e-inclusion

Most participants regarded computer usage and literacy as something evolving in a 'natural' way, like television or the mobile phone. However, owning and knowing how to use the computer did not always result in having internet access at home. Some participants had made the intentional choice not to obtain internet at home in order to avoid exposing children to harmful contents. For some, internet use was associated with the private use of the internet at work.

In the adolescent group, the use of the internet was not as actual as it had been at earlier life stages. Direct contacts with friends were considered more important than communicating through the internet.

4.5.2 On e-government

Israeli focus group participants were either not aware of Israeli e-government services and/or negatively inclined to it. Youngsters could not bother and saw no reason to learn more about or interact with 'bureaucracy'. Insofar as the adults were concerned, the antipathy expressed vis-à-vis e-government seemed rather to reflect negative attitudes – even animosity – towards government per se rather than e-government specifically. Government officials were judged as rude and citizen-unfriendly. More specifically with regard to e-government there was a general sense that this represented a one-way interaction.

4.5.3 Recommendations

The following recommendations were made by Israeli focus group participants about how to improve e-government:

1. The objective ought to be improving the transparency, proximity and friendliness of government as such, not only that of e-government.
2. Existing e-government services are primarily product-oriented. They provide a lot of information but fail to specify the benefits for the user. Therefore, more attention ought to be given to disseminating information about what use to make of e-government services. E-government ought not to assume that citizens already know everything they need to know about governmental services.
3. A related problem is the complexity of e-government sites which tends to transmit the impression that there is too much information. This overwhelms users and makes it more difficult to find out relevant information when necessary.
4. Interfaces should be improved. The possibilities for directly interacting with officials, asking questions or following-up inquiries should be improved. Acknowledging receipt of inquiries would be a first good way forward.

4.6 Bulgaria

Setting up a focus group turned out especially difficult in Bulgaria. The nine participants that were summoned for the piloting of the ELOST questionnaire could not agree to meet together for a group discussion. Six months later, in the

Spring 2007 and upon completion of the ELOST survey, it was finally possible to bring eleven participants (original nine plus two) partly together in two meetings. Nevertheless the extent of group discussion (as opposed to bilateral interaction with the moderators) was limited.

The majority of the respondents were Bulgarian, two were of Roma origin. Most lived very poorly. This was especially the case of the two Roma participants as well as of the retired or disabled Bulgarians. The majority was of low educational background but there were exceptions. Three were women, the rest men.

Affordability is by far the main barrier to e-inclusion in Bulgaria. Most low-income citizens cannot afford computers or internet access at home. If, and when they learn the use of the computer, it is through participation in computer courses targeting unemployed persons and organized by non-governmental organizations. Beyond this, there is a psychological barrier regarding the use of the computer given that negative attitudes and misperceptions are quite widespread.

Insofar as e-government is concerned, those that had familiarity with the use of the internet and thus the opportunity to test e-government sites, complained that these did not deliver the services they promised.

Bulgarian respondents not residing in the capital city pointed out the inclusive potential of e-government – assuming it worked. Citizens living in rural areas stand especially to benefit from e-government given that they live far away from where most public institutions are located.

4.7 Synthesis

The focus group findings confirm by and large the findings of the ELOST survey and enlarge our understanding of the latter.

Lack of access to the internet is explained, first and foremost, by lack of funds and lack of technical skills. Negative attitudes have also a role to play, however, they can be as much the result of lack of access as the cause.

On the subject of costs, the focus group discussions revealed that lack of transparency – compounded by the very many offers available albeit presented in different ways – is an inhibiting factor for people with little money that cannot afford 'experimenting'. A related concern is the life expectation of computers. The prospect of having to engage in regular upgrades of either hardware or software de-motivates people of low income to introduce modern communication technologies in their lives.

Discussions on e-government produced a multitude of recommendations about improving online interaction with public authorities; but also revealed how citizens expect personal and citizen-friendly government services and are not willing to accept e-government as a substitute for government. Indeed in some countries – notably in Israel and France – negative attitudes expressed vis-à-vis e-government were clearly the result of hostility vis-à-vis government and widespread dissatisfaction with the institutional practices of public authorities.

The recommendations on e-government can be summarized as follows:

On raising awareness

E-government sites / services should be advertised more actively on television. Alternatively, booklets with Web addresses and short information about most important sites should be made available in public offices or distributed by mail to all households. It is important that awareness campaigns focus not only on the products but on the benefits for the user. E-government sites should be re-organized accordingly.

On user-friendliness and quality

Quality improvements called for in most countries include: the development of learning modules in the form of games; better navigation and search facilities; improve interfaces; simplify language; avoid overloading of pages.

It is equally important to recognize the need of users for support. It was practically a demand coming from all citizens in all countries that it should be possible when using e-government to have access to a telephone and/or e-mail support line. Furthermore, it should become standard practice to provide acknowledgment of receipt replies upon the submission of inquiries or forms with a reference number for further tracing if necessary.

On public access internet points

Not on the street but in community centres, libraries or other covered public spaces and linked to printing facilities and training / learning opportunities. The possibility of providing a few PAIP in internet cafés should also be explored.

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The data from the ELOST survey can be made available for secondary analysis to other researchers subject to request and provided no commercial use of the findings will be made.