

Community Survey on ICT usage in households and by individuals 2004

Final report

Please read this first !!!

General guidelines on using this template

- Fill in the required information in the space (box) foreseen next to or below the item heading, if a box is irrelevant for your national survey, indicate 'non-applicable' to avoid we have to come back to you on this item. An increase of the box' size after inserting several lines or paragraphs is no problem. However, when reporting several pages for one item, we kindly ask you to give a short summary and refer to the full text in an annex.
- Keep the numbering of the chapters and items. Additional comments can be given at the end of the report.
- This template is designed to serve both the requirements for the Interim as well as the Final reports. It is obvious that not all chapters/items can be reported at this stage of the Interim report. We nevertheless already inserted those at this stage for reasons of completeness and early information on the final report's content.
Chapters and/or paragraphs that may be left open in this report are marked with 'Final Report' (Chapters 8 and 9 and §11.5) other chapters and items are compulsory for the Interim Report.
However, where provisional information for the Final Report topics is already available, we invite you to provide us with this data at this stage (and update it in the Final Report).
In Chapter 7, we ask you to provide data on response rates and non-response. If the data-processing is still ongoing, please fill in the provisional information reflecting the current situation (a revision can be made in the Final Report).
- Please replace in the header field the code 'EU' with your country code.

We kindly thank you for respecting these guidelines.

1. Cover information

| | | |
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| 1.1 | Country | GREECE |
| 1.2 | Organisation responsible for the survey | NATIONAL STATISTICAL SERVICE OF GREECE |
| 1.3 | Organisation running the survey <i>If different from "organisation responsible".</i> | |
| 1.4 | Contact person (name, unit, e-mail, phone, fax) | CHALKIADAKI MARIANNA UNIT FOR SPECIAL HOUSEHOLD SURVEYS TEL. 0030 -210-485 2896 FAX. 0030-210-485 2906 E-MAIL: ECHP@STATISTICS.GR |

| | | |
|------------|--|---|
| 1.5 | Name of the collection The name of the survey in its original language(s) and in English (e.g. name used in the statistical office's English website). | SURVEY ON THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES |
| 1.6 | Last update of this report | 25-7-2005 |

2. General methodological information

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| 2.1 | <p>Reference period(s)</p> <p>The main reference period for the ICT variables as well as the background variables, e.g. <i>first quarter of the year</i> or <i>last three months before the interview</i> (with an indication of the respective months), or a specific date.</p> <ul style="list-style-type: none"> • <31st of March 2004 for educational level completed • Day of the survey conduction for activity status, home based business,A1-A5 • Three first months of 2004 for questions B2,B3,C2,C3,C4,C5,C6,C7 • Last 12 months (April 2003-March 2004) for questions B4,C8,D2,D3,D4> |
| 2.2 | <p>Survey period</p> <p>The beginning and end date – if already known – of the data collection period.</p> <p>1 April 2004-31 May 2004</p> |
| 2.3 | <p>Survey vehicle</p> <p>Stand-alone or embedded in another survey. If embedded, give a short description of the survey the ICT modules are inserted in.</p> <p>ICT is a stand alone survey.</p> |
| 2.4 | <p>Survey type</p> <p>Short description of the survey type (face-to-face interview, self-administered mail survey, telephone interview, combination of techniques, other; mandatory versus voluntary participation; etc.).</p> <p>Face to face interview, in some cases with simultaneous data entry in electronic questionnaire (using portable). Participation is mandatory according to Greek law.</p> |
| 2.5 | <p>Pre-testing</p> <p>If applicable, give a short description of the pre-testing scheme and the main outcomes of pre-tests.</p> <p>Pre-testing took place only during the 2002 survey.</p> |
| 2.6 | <p>Main methodological differences compared to previous survey(s)</p> <p>If any, indicate the changes in methodology that may have an impact on the (comparability over time of the) results delivered to Eurostat, e.g. change in reference period, new reference sampling frame, different scope, different grossing-up method, different treatment of non-response, etc. No need for giving detailed technical analyses, a bulletpoint overview of the main differences and the expected impact is sufficient.</p> |

Main methodological differences compared to previous survey(s)

If any, indicate the changes in methodology that may have an impact on the (comparability over time of the) results delivered to Eurostat, e.g. change in reference period, new reference sampling frame, different scope, different grossing-up method, different treatment of non-response, etc. No need for giving detailed technical analyses, a bulletpoint overview of the main differences and the expected impact is sufficient.

- The sample of the **2002 survey** consisted of one of the six rotating panels that make up the Greek Labour Force Survey (LFS). The LFS is a quarterly rotating panel household survey with multistage stratified design that covers the target population of the ICT survey.

The sampling design involves clustering of households in the area units that comprise the area frame. By area unit we mean a part of inhabited area ending at artificial or natural boundaries well defined and identifiable on the ground, by using a map of the locality. Such a unit could be one or more neighbouring blocks, or part of a rural locality with such boundaries.

Stages of probability sampling: The sample of private households and associated eligible residents was drawn in three stages. In the first stage of the LFS sampling a random sample of area clusters, the primary sampling units (PSUs), was systematically selected from each stratum with probability proportional to the number of private households in the cluster. In the second stage a systematic random sample of households was drawn, with a pre-fixed sampling rate, from the current population of households (based on a list prepared in the field) of each selected PSU. In the third stage, for the incoming LFS rotation (287 PSUs) one of the residents (aged sixteen to seventy four) of each selected household was selected at random in the field for the ICT survey.

- The sample of the **2003 survey** consisted of three of the four rotating panels that make up the Greek Survey of Income and Living Conditions (EU-SILC). The EU-SILC is an annual rotating panel household survey with multistage stratified design that covers the target population of the ICT survey. It should be noted that all four initial panels of the EU-SILC were simultaneously introduced for its first wave conducted in 2003. The reasons for using panels of the EU-SILC to collect the ICT information was the operational convenience, the low cost and the facility in creating a representative sample of the requisite size.

The EU-SILC survey used a stratified multistage probability sampling to select the eligible sampling units.

Stratification: The sampling design involves two levels of area stratification: (i) The first level is geographical stratification based on the partition of the total country area into thirteen standard administrative regions corresponding to the European NUTS II level. The two major city agglomerations of Greater Athens and Greater Thessalonica constitute separate major geographical strata. (ii) The second level of stratification involves grouping municipalities and communes within each NUTS II administrative region by degree of urbanization, i.e., according to their population size, into four categories. These categories are defined by the population size intervals 0-999, 1000-4999, 5000-29999, 30000 and over. The number of final strata in the thirteen regions, i.e., non-empty strata formed by crossing region and degree of urbanization, was 50. The two major city agglomerations were further partitioned into 31 and 9 substrata (administrative subsections), respectively, on the basis of the city blocks of the municipalities that constitute them. Thus, the total number of strata for this survey was 50.

Clustering: The sampling design involves clustering of households in the area units that comprise the area frame of each final stratum. By area unit we mean a part of inhabited area ending at artificial or natural boundaries well defined and identifiable on the ground by using a map of the locality. Such a unit could be one or more neighbouring blocks, or part of a rural locality with such boundaries. To reduce field costs and the time length of the fieldwork, the size of the area clusters was limited to an average of approximately fifty households in the thirteen administrative regions, and approximately seventy households in the two major city agglomerations.

- The sample of the **2004 survey** was exactly the same as the one of the 2003 survey.

3. Statistical unit(s), scope and target population

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|-----------------------------|---|
| 3.1 Statistical unit | <p>Please indicate whether the following recommendations were applied (and specify the deviations, if any):</p> <ul style="list-style-type: none"> Questions A1-A4 in the Eurostat model questionnaire: households with at least one member aged 16 to 74 (included); Question A5, Modules B, C and D in the Eurostat model questionnaire: individuals aged 16 to 74 (included). <p>Where different from the statistical unit, please indicate the actual <i>collection</i> unit.</p> |
| | <ul style="list-style-type: none"> Questions A1-A4 in the Eurostat model questionnaire: households with at least one member aged 16 to 74 (included) Question A5, Modules B, C and D : One randomly pre-selected individual aged 16-74 per household. |

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| 3.2 Age groups covered | <p>In the demographic part of the questionnaire all members of the household (residing in the dwelling during the first three months of the year 2004) have been registered. For households with members aged less than 16 and/or more than 74, only, demographic part has been completed. For modules A, B, C and D the above (§3.1) hold.</p> |
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| 3.3 Territorial coverage | <p>If applicable, indicate the parts of the country that are not included as well as an estimate of the resulting percentage of undercoverage (non-covered population compared to total country population).</p> <p>All private households of the country and the members of them are covered in the survey, independently of their size or any socio-economic characteristics they may have.</p> <p>Excluded are collective households such as hotels, hospitals, military camps, nursing homes, etc. As collective households were also considered households with more than 5 lodgers. Households having as members foreigners in diplomatic missions.</p> |
|---------------------------------|---|

| | Universe | Households | Individuals |
|----------------------------------|---|-------------------|--------------------|
| 3.4 Target population | <p>The number of <i>households</i> and <i>individuals</i> in the target population (scope, universe). If not directly available, please provide an estimate (e.g. based on other social surveys). If not applicable, please indicate why.</p> | 3.324.647 | 8.468.905 |
| 3.5 Non-target population | <p>The approximate number of <i>households</i> and <i>individuals</i> outside the scope of the survey (e.g. individuals younger than 16 or older than 74; households with all members over 74 years old), i.e. the difference between the total population (in terms of households or individuals) in the country and the target population). If not applicable, please indicate why.</p> | 339.745 | 1.797.099 |

4. Questionnaire

| 4.1 | Adoption of questions and items from the Eurostat model questionnaire (v10) | | | |
|--|--|---|---|--|
| <p>Please indicate in the table below whether the questions were collected in the national survey (by inserting a 'X' in the column "Question included"). The 'O' next to the question title refers to the optional status of certain questions.</p> <p>Deviations from the Eurostat model questionnaire are to be discussed in the last column (e.g. missing, combined or additional items; different reporting periods; deviations in the routing or ordering of the questions/items (see also §4.3); difference definitions; different classification, breakdown or source (esp. in the background characteristics)).</p> <p>Where applicable, specify whether the information was derived from other sources than the ICT questionnaire.</p> | | | | |
| Question | Question included | Deviations from Eurostat model question | | |
| Module A : Access to selected ICTs | | | | |
| A1 | Does the household via one of its members have access to any of the following? | X | | |
| <u>A2</u> | Does any member of this household have access to the world wide web (Internet) at home | X | | |
| <u>A3</u> | On which of these devices is the Internet accessed at home? | X | | |
| <u>A4</u> | What types of Internet connection are used? | X | Additional item "Don't know →B1", was considered necessary in the case that A1-A4 were answered by a person not knowing this extremely specialized information. | |
| A5 | What are the main reasons for you not having access to the Internet at home? | O | X | |
| Module B : Use of computer | | | | |
| B1 | When did you most recently use a computer? | X | | |
| B2 | How often on average have you used a computer in the last 3 months | X | | |
| B3 | Where have you used a computer in the last 3 months? | X | | |
| B4 | Which of the following computer related activities have you carried out within the last 12 months? | O | X | |
| B5 | Have you taken any training courses (of 3 hours or longer) on any aspect of computer use? | O | | |
| Module C : Use of the Internet | | | | |
| C1 | When did you most recently use the Internet? | X | | |
| <u>C2</u> | On average how often did you use the Internet in the last 3 months? | X | | |
| <u>C3</u> | Where have you used the Internet in the last 3 months (using a computer or any other means)? | X | | |
| C4 | Approximately how many hours per week did you spend on the Internet at home or elsewhere (including work) in the last 3 months | O | X | |
| <u>C5</u> | In the last 3 months, have you taken any of the following security precautions? | X | | |
| <u>C6</u> | For which of the following activities did you use the Internet in the last 3 months for private use? | X | | |

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| C7 | Did you use the Internet for work-related activities outside the premises of your employer (e.g. at home) in the last 3 months? | O | | |
| C8 | <i>(juncto C7) Which ones ?</i> | O | | |
| C9 | How frequently have you used the Internet for the following health related activities, for private purposes, in the last 3 months? | | X | C7 in national questionnaire |
| C10 | In the last 12 months, have you encountered any of the following security problems through using the Internet? | | X | C8 in national questionnaire |
| Module D : Internet commerce details | | | | |
| D1 | When did you most recently order goods or services for private use over the Internet? | | X | |
| D2 | What was the total value of these goods and services (excluding financial investments)? | O | | |
| D3 | What types of goods and services did you order over the Internet for private use in the last 12 months? | O | X | |
| D4 | Did you pay for any of those goods or services by giving your payment card details (credit/debit card) over the Internet? | O | X | D3 in national questionnaire |
| D5 | Did you buy or order goods over the Internet from [...] | O | | |
| D6 | What problems, if any, have you encountered when making orders over the Internet? | O | X | D4 in national questionnaire |
| D7 | What were the main reasons for not buying / ordering any goods or services for your own private use? | O | X | D5 in national questionnaire |
| Socio-demographic background variables | | | | |
| | Household type | | X | |
| | Income | O | | |
| | Home based business | | X | |
| | Age | | X | |
| | Sex | | X | |
| | Educational level | | X | |
| | Employment situation | | X | |
| | Location (Objective1/non-Objective1, urban/rural) | | X | Whole country |

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| 4.2 | Additional questions introduced in the national questionnaire, if any |
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| 4.3 | Effects of deviations from the routing used in the Eurostat model questionnaire, if any |
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| 4.4 | General remarks on the national questionnaire, if any |
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5. Sampling frame

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| 5.1 | Name and short description of the sampling frame or register used |
| | <p>The sampling frame containing the primary units for the ICT survey is the same as for the EU-SILC of the year 2003, which is an area frame constructed using the necessary information from the Greek General Population Census 2001, and provides complete coverage of the target population of this survey.</p> |
| 5.2 | Known shortcomings of the sampling frame, if any |
| | <p>Shortcomings in terms of timeliness (e.g. time lag between last update of the sampling frame and the moment of the actual sampling), geographical coverage, coverage of different subpopulations, etc.</p> |
| | <p>The sampling frame has been updated one month before the survey was initiated, therefore, no major shortcomings should exist.</p> |

6. Sampling design

6.1 Sampling method

Please give a description of the sampling method used (e.g. stratified random sample, quota sampling, cluster sampling; one-stage or two-stage sampling; if not directly selected from the register, how are individuals selected within the household; one or all individuals within a household; etc.) and the method used for determining the sample size and sample selection. If stratification was used, please specify which variables were used to stratify, the categories of those variables and the final number of strata.

Stratified multistage probability sampling.

Stratification

The sampling design involves two levels of area stratification: (i) The first level is geographical stratification based on the partition of the total country area into thirteen standard administrative regions corresponding to the European NUTS II level. The two major city agglomerations of Greater Athens and Greater Thessalonica constitute separate major geographical strata. (ii) The second level of stratification involves grouping municipalities and communes within each NUTS II administrative region by degree of urbanization, i.e., according to their population size, into four categories. These categories are defined by the population size intervals 0-999, 1000-4999, 5000-29999, 30000 and over. The number of final strata in the thirteen regions, i.e., non-empty strata formed by crossing region and degree of urbanization, was 50. The two major city agglomerations were further partitioned into 31 and 9 substrata (administrative subsections), respectively, on the basis of the city blocks of the municipalities that constitute them. Thus, the total number of strata for this survey was 50.

Clustering

The sampling design involves clustering of households in the area units that comprise the area frame of each final stratum. By area unit we mean a part of inhabited area ending at artificial or natural boundaries well defined and identifiable on the ground by using a map of the locality. Such a unit could be one or more neighbouring blocks, or part of a rural locality with such boundaries. To reduce field costs and the time length of the fieldwork, the size of the area clusters was limited to an average of approximately fifty households in the thirteen administrative regions, and approximately seventy households in the two major city agglomerations.

Sample size

The size of the ICT sample was 6.105 households/individuals —from the three panels of the EU-SILC— of which during the EU-SILC conduction 4.970 responded (completed household questionnaires) –81,4% response rate. More specifically, the size of the three rotational groups of the EU-SILC : **6.105**. During the EU-SILC survey conduction :

For 29 households address couldn't be located

2 address had been unable to access

108 address didn't exist or had been non residential address or had been unoccupied or not principal residence.

For the rest **5.997** households to be interviewed for the EU-SILC:

4.970 households completed households questionnaire

434 refused to cooperate

451 households were temporarily away for the duration of the fieldwork

64 household were unable to respond (due to illness, incapacity, etc.)

47 households weren't interview for other reasons

According to these results, the **initial sample** for the ICT survey was **4.970** households.

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| 6.1 | <p>Stages of probability sampling</p> <p>The sample of private households and associated eligible residents was drawn in three stages. In the first stage of the EU-SILC sampling a random sample of area clusters, the primary sampling units (PSUs), was systematically selected from the frame of clusters in each final stratum with probability proportional to the number of private households in the clusters. The determination of the number of PSUs in each stratum was based on the allocated sample size, the desired number of households to select in each PSU (6 to 12 households, but the same number in the same stratum) and the panel rotation pattern requiring a multiple of 4 panels in each stratum. A total of 792 PSUs were selected in the three panels that were used for the ICT survey, with an average of 60 households per PSU according to Census 2001 counts. In the second stage, a systematic random sample of households was drawn with a pre-fixed sampling rate from the current population of households (based on a list prepared in the field) of each selected PSU. In the third stage of sampling, one of the residents aged sixteen to seventy four of each selected household was selected at random using Kish's method for the ICT survey.</p> |
| 6.2 | <p>Additional measures taken at the time of sampling design to improve representativeness</p> <p>If any, and if not covered under §6.1. E.g. corrections for sampling frame undercoverage, etc.</p> <p>Given that the sampling frame is updated regularly, no additional measures were taken.</p> |

| | <i>Sample size</i> | <i>Households</i> | <i>Individuals</i> |
|-----|--|----------------------------|--------------------|
| 6.3 | <p>Gross sample size</p> <p>The number of households/individuals initially selected from the sampling frame (if not applicable, please indicate why).</p> | To be filled in under §7.A | |
| 6.4 | <p>Net sample size</p> <p>The number of households/individuals that can be used in the final database (if not applicable, please indicate why).</p> | | |

7. Response and non-response

Note: This chapter only deals with non-response error. Other non-sampling error such as frame errors, measurement and processing errors or model assumption errors are discussed elsewhere or outside the scope of this methodological report.

UNIT NON-RESPONSE

Unit non-response occurs when not all elements (households and/or individuals) of the gross sample (i.e. the initial sample drawn from the reference sampling frame) participate in the survey and are thus not included in the net sample.

However, not all types of non-response are taken into account when calculating the response rate (in §7.D) as they can be rather related to the quality of e.g. the sampling frame than to the quality of the survey data.

Note: In this report - for reasons of comparability across countries - all non-contacts are considered to be *non-response of eligible cases* (where in reality some of the non-contacts may concern ineligible cases).

| | | <i>Number of households</i> | <i>Number of individuals</i> |
|------------|---|-----------------------------|------------------------------|
| 7.A | Gross sample size The number of households/individuals initially selected from the sampling frame (if not applicable, please indicate why). | 4.970 | 4.970 |

| | <i>Type of unit non-response (ineligible cases)</i> | <i>Number of households</i> | <i>Number of individuals</i> |
|------------|---|-----------------------------|------------------------------|
| 7.1 | Ineligible: out-of-scope E.g. selected household is not in the target population because all members are over 75 years old. | 427 | 427 |
| 7.2 | Other ineligible E.g. no dwelling exists at the selected address or selected individual has died between the reference data of the sampling frame (cf. §5.2) and the moment of the interview. | 0 | 0 |

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| 7.B | Number of eligible elements I.e. the gross sample size corrected for the ineligible cases. ► $[\$7.B] = [\$7.A] - [\$7.1] - [\$7.2]$ | 4.543 | 4.543 |
|------------|---|--------------|--------------|

| | <i>Type of unit non-response (eligible cases)</i> | <i>Number of households</i> | <i>Number of individuals</i> |
|------------|---|-----------------------------|------------------------------|
| 7.3 | Non-contact E.g. no one was home or postal survey was never sent back. | 207 | 207 |
| 7.4 | Refusal E.g. selected household or individual was contacted but refused to take part in the survey. | 156 | 156 |
| 7.5 | Inability to respond E.g. selected household or individual was unable to participate due to language barriers or cognitive or physical incapacity to respond. | 0 | 0 |

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|------------|--|----------|----------|
| 7.6 | Rejected interviews E.g. the selected household/individual did take part but the survey form cannot be used (poor quality - e.g. strong inconsistencies; unacceptable item-response – e.g. individual left most of the questions unanswered; survey form got lost and interview cannot be repeated; etc.). | 0 | 0 |
| 7.7 | Other non-response Please specify the other types of non-response encountered. <u>Note:</u> please add the other non-response related to ineligibility of the selected elements under §7.2. • ... • ... | 0 | 0 |

| | | | |
|------------|---|--------------|--------------|
| 7.C | Net sample size The number of households/individuals that can be used in the final database (if not applicable, please indicate why). This notion corresponds to the <i>final sample</i> in the Tabulation Scheme. ► $[\$7.C] = [\$7.B] - [\$7.3] - [\$7.4] - [\$7.5] - [\$7.6] - [\$7.7]$ | 4.180 | 4.180 |
|------------|---|--------------|--------------|

| | | <i>Households</i> | <i>Individuals</i> |
|------------|--|-------------------|--------------------|
| 7.D | Unit response rate The unit response rate is the ratio of the <i>number of in-scope respondents</i> (= the number of achieved interviews or the net sample size, see §7.C) to the <i>number of eligible elements</i> selected from the sampling frame (see §7.B). The number of eligible elements equals <i>the gross sample size</i> (see §7.A) <i>minus the ineligible cases</i> (see §7.1 and §7.2). ► $[\$7.D] = [\$7.C] / [\$7.B]$ | 92,01% | 92,01% |

| | |
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| 7.8 | Comments on the unit response rate, if any The sampling frame containing the primary units for the ICT survey is the same as for the EU-SILC of the year 2003. In the year 2003 firstly the EU-SILC took place and afterwards the ICT survey. More specifically from the 6105 households forwarded for the EU-SILC interview, 139 hadn't been interviewed as their addresses couldn't be located, were unable to access, didn't exist or were non residential/ unoccupied. From the 5997 remaining households, only 4970 responded (non response rate for the EU-SILC $4970/5997=82,87\%$) and thus formed the sample for the ICT survey, as we had their phone numbers as well as household's synthesis. |
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| 7.9 | Methods used for minimizing unit non-response Where applicable, give a description of measures taken to reduce the unit non-response (e.g. advance notification in the form of a letter or phone call; showing respondents how the data they are providing are being used; system of reminders; etc.). An advance notification letter was sent to all households, one month before the survey conduction. In cases where the households couldn't be approached, mainly due to temporary absence, a number of calls-backs (up to three) were used. In these cases, another notification letter was left, informing the households that the interviewer would visit them again on a certain date / time. |
|------------|--|

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| 7.10 | <p>Methods used for dealing with unit non-response</p> <p>Indicate whether imputations are made for unit non-response and give a short description of the methods used (e.g. correction factor in the weighting procedure, imputation based on background characteristics known from the sampling frame, etc.).</p> <p>The household weights of the ICT sample in each of the thirteen major geographic strata will also be adjusted for non-response (using the inverse response rate) separately within each substratum defined by degree of urbanization. In the two major city agglomerations the non-response adjustment was made within each of their substrata. To produce a set of person weights, the household weights will be further multiplied by the weight of the selected person (inverse household size, defined as the number of persons of the eligible age) and calibrated to the population total (based on demographic projection) for persons of the eligible age.</p> |
| 7.11 | <p>Other comments relating to the unit non-response</p> <p>If any, please use this box to inform on additional issues on the non-response calculation (e.g. method used in national publications, etc.).</p> |

ITEM NON-RESPONSE

Item non-response occurs when a respondent provides some, but not all, of the requested information, or if the reported information is not useable (note that entirely non-useable questionnaire are already counted in the *unit* non-response, see §7.6).

It may occur for a variety of reasons. Items may be missing because the respondent broke off the interview after partially completing it (but enough data were provided so that the questionnaire is not classified as a unit non-response). Items may be missing because the respondent inadvertently skipped an item, a module or a page (especially in self-administered mail surveys). Or a respondent may simply not have the information on the question (and no don't know option is foreseen) or refuse to give the requested information.

As item non-response usually goes hand-in-hand with systematic bias (e.g. the proportion of *No* answers may be higher among people with item non-response compared to those who did answer on a specific item), it is useful to assess the degree and impact of this type of non-response.

| | |
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| 7.12 | <p>Questions or items with item response rates below 90%</p> <p>If any, identify the items with low response rates (the cut-off value to be used is 0.90) and indicate their respective response rates. The item non-response rate should of course be calculated taking into account the routing and filtering in the questionnaire.</p> <p>In general, the data entry program didn't allow for missing items. However, the only items skipped by the interviewers were "educational level", "activity status" and "home based business". In any case, these item non response rate was very low, less than 3%.</p> |
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If any, please use this box to inform on additional issues on the non-response calculation (e.g. method used in national publications, etc.).

8. Grossing-up procedures

Please give a description of the extrapolation or weighting procedures used to gross up the *households* (§8.1) and the *individuals* (§8.2) in the net sample to the (target) population, discussing the different steps taken or factors applied to the design weighting to take into account the (post)stratification, balancing for unit non-response, etc.

In case similar methods are used for grossing-up the net samples of households and individuals, the discussion can be integrated under one heading.

8.1 Grossing-up procedures for households

Let h be one of the final strata of households (Final stratum = Geography x Urbanization), then this will take the following values: $h = 1, 2, \dots, H$ (where $H = 90$). In each of the final strata (let h), if statistical information was selected from a sample of n_h households, the extrapolation factor was defined as:

$$w_h = \frac{N_h}{n_h} \quad (8.1)$$

where N_h is the number of households in the target population in stratum h . As this number was not directly available, the N_h was estimated from sampling data as following:

$$N_h = N'_h \cdot \alpha \quad (8.2)$$

where:

N'_h : The total number of households from population census of the year 2001 belonging in stratum h and

$$\alpha = 1 - \frac{427}{427 + 4180} \quad (8.3)$$

In relation (8.3), the number 4180 represents the total of sampling households n , from which data were selected at whole country ($n = \sum_{h=1}^H n_h$) and the number 427 represents the total number of selected households at whole country, which were not in the target population, because all members were over 75 years old.

The factor α was considered as constant in each stratum h , because the sample size of households in each stratum was not high enough in order robust estimations of the factor α_h to be produced. If n'_h are the out-of scope households in stratum h , then the factor α_h was defined as:

$$\alpha_h = 1 - \frac{n'_h}{n'_h + n_h} \quad (8.4)$$

Robust estimations of N_h were produced considering $\alpha_h = \alpha \quad \forall h$.

8.2 Grossing-up procedures for individuals

For the calculation of extrapolation factors aiming at grossing up the individuals, the sampling individuals were post stratified by sex and age groups. The age groups were 12, and they were defined by the year intervals: 16-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69 and 70-74. The total number of post strata containing the sampling individuals was 24 (2 sex categories x 12 age groups).

Let h be one of the final post strata of individual (Final post stratum = sex x age groups), then this will take the following values: $h = 1, 2, \dots, L$ (where $L = 24$). In each of the final post strata (let h), if statistical information was selected from a sample of m_h sampling individuals, the extrapolation factor was defined as:

$$w'_h = \frac{M_h}{m_h} \quad (8.5)$$

where M_h is the number of individuals in the target population in stratum h according to population census data of the year 2001.

9. Sampling error

Relative standard error / coefficient of variation (for a selection of indicators)

The sampling error reflects the fact that only a particular sample was surveyed rather than the entire population. The (estimated) **relative standard error** – or (estimated) **coefficient of variation (CV)** – is the ratio of the square root of the variance of the estimator for the proportion (σ) to the expected value of the proportion (θ). It is estimated by the ratio of the square root of the estimate of the sampling variance ($\hat{\sigma}_{(\hat{\theta})}$) to the estimated value.

$$CV_{\hat{\theta}} = \frac{\hat{\sigma}_{(\hat{\theta})}}{\hat{\theta}}$$

The estimation of the sampling variance should ideally take into account the sampling design (e.g. the stratification).

In case the CV's are derived using the variance formula for simple random sampling and incorporating a factor which reflects the multi-stage, clustered nature of the sampling design, please comment on the assumptions made and or the methods used (§9.7).

Please indicate below the estimated value of the proportion as well as the respective *relative standard error* for the indicators and sub-indicators mentioned.

| | <i>Indicator or subindicator</i> | <i>Estimated proportion</i> | <i>Coefficient of variation</i> |
|--------|--|-----------------------------|---------------------------------|
| 9.1 | Proportion of households having access to the Internet at home (item 'Yes' in variable A2 of the 2004 model questionnaire) | 16,54 | 3,5 |
| 9.2 | Proportion of households using a broadband connection (a 'Yes' on option b, c or d in variable A4 of the 2004 model questionnaire) | 1,40 | 34,6 |
| 9.3 | Proportion of indiv. having used a computer in the last 3 months (individuals who ticked the 1 st option in variable B1 of the 2004 model questionnaire) | 26,22 | 2,6 |
| 9.4 | Proportion of individuals regularly using the Internet: overall (individuals who ticked option 1 or 2 in variable C2 of the 2004 model questionnaire) | 17,30 | 3,5 |
| 9.4.1 | Proportion of ind. regularly using the Internet: males | 59,51 | 2,9 |
| 9.4.2 | Proportion of ind. regularly using the Internet: females | 40,49 | 4,2 |
| 9.4.3 | Proportion of ind. regularly using the Internet: age group 16-24 years | 33,40 | 5,1 |
| 9.4.4 | Proportion of ind. regularly using the Internet: age group 25-34 years | 30,35 | 5,3 |
| 9.4.5 | Proportion of ind. regularly using the Internet: age group 35-44 years | 23,90 | 5,8 |
| 9.4.6 | Proportion of ind. regularly using the Internet: age group 45-54 years | 9,68 | 10,8 |
| 9.4.7 | Proportion of ind. regularly using the Internet: age group 55-64 years | 1,98 | 24,4 |
| 9.4.8 | Proportion of ind. regularly using the Internet: age group 65-74 years | 0,69 | 41,1 |
| 9.4.9 | Proportion of ind. regularly using the Internet: low educational level | 8,63 | 14,7 |
| 9.4.10 | Proportion of ind. regularly using the Internet: medium educational level | 49,06 | 4,1 |
| 9.4.11 | Proportion of ind. regularly using the Internet: high educational level | 42,31 | 4,5 |
| 9.4.12 | Proportion of ind. regularly using the Internet: students | 28,65 | 6,2 |
| 9.4.13 | Proportion of ind. regularly using the Internet: employees | 48,19 | 4,1 |
| 9.4.14 | Proportion of ind. regularly using the Internet: self-employed | 16,86 | 8,4 |
| 9.4.15 | Proportion of ind. regularly using the Internet: unemployed | 3,09 | 22,8 |
| 9.4.16 | Proportion of ind. regularly using the Internet: retired | 0,73 | 41,1 |
| 9.5 | Proportion of individuals having downloaded official forms (individuals who ticked item o in variable C6 of the 2004 model questionnaire) | 16,25 | 9,1 |
| 9.6 | Proportion of individuals having ordered goods or services for private use over the internet in the last 3 months (individuals who ticked option 1 in variable D1 of the 2004 model questionnaire) | 3,94 | 17,4 |

| | |
|-----|--|
| 9.7 | <p>Comments on the calculation of the coefficient of variation</p> <p>Although the selection of sampling units (households, individuals) was carried out with the application of multistage sampling, the calculations of extrapolation factors and the coefficients of variations were based on single stratified random sampling, with the use of auxiliary information coming from population census of the year 2000. The use of auxiliary information (as population totals in post strata) improved the accuracy of the produced results.</p> |
|-----|--|

10. Closing remarks

| | |
|------|--|
| 10.1 | <p>Problems encountered and lessons to be learnt</p> <p>These comments can relate to methodological issues as well as to the questionnaire itself (item construction, clarity of definitions to interviewers and respondents, routing and filtering, etc.)</p> <p>The only concept being obscured was the “home based business” concept.</p> <p>Also, the types of internet connection hadn't been easily answered, as being extremely specialized information, especially for members of the households answering the household information (A1-A4) not using the internet themselves, however we had added as an answer in A4 “Don't know” in order to surpass the problem.</p> |
| 10.2 | <p>Other comments, if any</p> |

11. Annexes

Note: Please also provide the annexes in a computer-readable format and in English

| | | |
|------|---|-----|
| 11.1 | Questionnaire in national language | YES |
| 11.2 | Questionnaire in English (if available) | YES |
| 11.3 | Interviewer instructions (if available) | YES |
| 11.4 | National reports on methodology (if available) | |
| 11.5 | Analysis of key results, backed up by tables and graphs | YES |

| | |
|-------------|--|
| 11.6 | Other annexes Please give an overview of other annexes (whether or not referred to in the preceding chapters of this report) <ul style="list-style-type: none">• ...• ... |
|-------------|--|