



Quality assessment of the third European Quality of Life Survey

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Project: European Quality of Life Survey

Note: This report has not been subject to the standard Eurofound editorial procedure. It reflects the authors' opinions but not necessarily those of Eurofound.

Abbreviations used in the report

CoP	code of practice
ECS	European Company Survey
EQLS	European Quality of Life Survey
ESMG	Eurofound Survey Management Guidelines
ESocS	European Social Survey
ESS	European Statistical System
EU LFS	European Union Labour Force Survey
EU-SILC	European Union Statistics on Income and Living Conditions
EWCS	European Working Conditions Survey
GSBPM	Generic Statistical Business Process Model
NSI	national statistical institute
QAF	quality assurance framework
ToR	terms of reference

Country codes

The order of countries follows the EU protocol based on the alphabetical order of the geographical names of countries in the original language.

BE	Belgium	LU	Luxembourg
BG	Bulgaria	HU	Hungary
CZ	Czech Republic	MT	Malta
DK	Denmark	NL	Netherlands
DE	Germany	AT	Austria
EE	Estonia	PL	Poland
IE	Ireland	PT	Portugal
EL	Greece	RO	Romania
ES	Spain	SI	Slovenia
FR	France	SK	Slovakia
IT	Italy	FI	Finland
CY	Cyprus	SE	Sweden
LV	Latvia	UK	United Kingdom
LT	Lithuania		

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Introduction

In June 2012, DevStat Servicios de Consultoría Estadística S.L. (DevStat, hereinafter ‘the consultant’) was awarded the contract for the quality assessment of the third European Quality of Life Survey (third EQLS) by Eurofound (the European Foundation for the Improvement of Living and Working Conditions).

Quality assessment is one of the elements of the Quality Management System in the European Statistical System (ESS). Quality assessment takes existing information on quality and uses this as an input to:

- evaluate the statistical process and its outputs against pre-defined standards;
- identify strengths and weaknesses;
- derive the actions required for improvement.

Following this approach, the quality assessment of the third EQLS is structured according to two complementary parts: process and output. High-quality outputs are the result of high-quality processes. In other words, the quality of outputs is strongly related to the quality of processes.

This quality assessment report presents the findings derived from the assessment of the third EQLS in all the 34 countries surveyed (the EU27 plus Croatia, the former Yugoslav Republic of Macedonia, Iceland, Kosovo, Montenegro, Serbia and Turkey), as well as recommendations for improvement and specific quality-improvement objectives.

The report is structured into four chapters plus annexes.

Chapter 1 – Assessment of the quality framework established by Eurofound: Assesses the Eurofound quality assurance framework (QAF) against the ESS QAF. The methods available to Eurofound at both the institutional and the survey levels are cross-checked against the ones proposed in the QAF.

Chapter 2 – Process assessment of the third EQLS: Evaluates the extent to which the contractor accomplished the requirements stated in the terms of reference (ToR) drafted by Eurofound. This chapter then assesses the third EQLS statistical operation against the Generic Statistical Business Process Model (GSBPM).

Chapter 3 – Output assessment of the third EQLS: Assesses the quality of the output of the third EQLS against the five output quality dimensions set out in the ESS.

Chapter 4 – Recommendations: Chapters 1 to 3 are intended to construct a top-down, three-level assessment framework. These three levels are the general institutional level, the specific statistical process level, and the statistical output level. This assessment framework enables the formulation of recommendations and the identification of improvement opportunities.

Annexes

1 Assessment of the quality framework of Eurofound

The first chapter of this quality assessment report provides an assessment of the quality framework designed by Eurofound for the implementation of the surveys it carries out. For this purpose, the most recent version of the quality assurance framework (QAF) of the European Statistical System (ESS) is proposed as a benchmarking framework (ESS, 2012).¹

The following points detail the reasons for the use of the ESS QAF as a benchmarking framework. Furthermore, the contents of this chapter and its links with the other sections of the report are provided.

1. Although outside the scope of the ESS, which produces official statistics, Eurofound adheres to the quality criteria adopted by the ESS for the implementation of the Foundation's three large-scale comparative surveys: the European Working Conditions Survey (EWCS), the European Quality of Life Survey (EQLS) and the European Company Survey (ECS). Thus, Eurofound aims to fulfil the highest quality criteria generally applied for official statistics. Furthermore, as a producer of statistics, Eurofound has recently adopted the Eurofound Survey Management Guidelines (ESMG), which is an internal tool recommended for the quality assurance of its statistical operations.
2. The QAF approach is considered applicable to Eurofound because the activities, methods and tools recommended in the QAF are designed in such a way that they do not depend on the organisational solutions that exist in the national statistical institutes (NSIs) that are part of the ESS. In general, the ESS QAF may be used by the different agents participating in the production and dissemination of European statistics, although some adaptations may be needed. Nevertheless, since the recommendations included in the QAF are designed for official statistics producers, not all of them are relevant for Eurofound's survey activities.
3. Finally, a clarification regarding the timing of the ESGM and the third EQLS is provided. This concerns the timing between Eurofound's survey management quality framework and its most recent statistical operation. Although adopted after the start of the implementation of the third EQLS, the consultant's understanding is that the preliminary work in drafting the ESGM was already considered when launching and managing the third EQLS. Thus, the comparison between the ESS QAF and the ESGM is justified, despite the chronological order of these events.

This chapter verifies the correspondence between the recommended methods and tools included in the ESS QAF with those identified in the ESGM, which outlines the main operational processes of survey projects within Eurofound. In this chapter, the ESGM review will be limited to matters regarding the institutional environment and the statistical processes (for example, an outline of the main operational processes), because of the nature of the Eurofound QAF. Chapter 3 will complete this assessment by addressing the issues related to the statistical output.

The ESS QAF contains recommendations for activities, methods and tools, defined in an action-orientated approach, that enable the practical and effective implementation of each of the indicators established by the ten principles of the code of practice (CoP) related to quality in statistics (ESS and Eurostat, 2011). These ten principles of the CoP are:

- commitment to quality (under institutional environment);
- sound methodology;
- appropriate statistical procedures;
- non-excessive burden on respondents;
- cost effectiveness (under statistical processes);
- relevance;
- accuracy and reliability;
- timeliness and punctuality;

¹ The ESS is the partnership between the Community statistical authority (Eurostat), the national statistical institutes and other national authorities responsible in each Member State for the development, production and dissemination of European statistics. The ESS also includes the EEA and EFTA countries.

- coherence and comparability;
- accessibility and clarity (under statistical outputs).

The ESMG defines and structures the main operational processes for effective and efficient management of Eurofound's survey projects. The ESMG distinguishes between three major stages in a survey project: (1) survey planning and development, (2) fieldwork and (3) reporting and post-survey assessments. For each stage, the survey processes and subprocesses are defined. Furthermore, for each of these, the responsible agents, the outputs and the process control procedures are identified. The ESMG provides a guide that is tailored to Eurofound's needs; it expands the scope of the Generic Statistical Business Process Model (GSBPM) (METIS, 2009) for quality and metadata management, or other equivalent statistical process models, by incorporating the procurement process.

Since Eurofound outsources a significant part of the statistical production process, the QAF at the institutional level is of particular importance. The QAF is recommended as a benchmarking framework for this purpose since it also includes recommended methods at institutional level and not only at survey level. The GSBPM is used as a benchmarking framework for assessing the compliance of the survey contractor with the third EQLS technical specifications drafted by Eurofound. Finally, this chapter aims to assess the general quality assurance framework established by Eurofound, and its internal capacity for establishing and controlling the production of high-quality statistical data.

Table 1 below checks the correspondence between the QAF recommended methods and the ones available or put in place by Eurofound.

Note 1: The indicators referred to in Table 1 are those indicators proposed by the ESS QAF. The ESS QAF describes for each indicator the activities, methods and tools that facilitate the implementation of the CoP.

Note 2: Whenever correspondence cannot be established because of lack of information, this is marked with 'NA', to be interpreted as 'information not available to the consultant'. In other words, NA marks the limit of the information available to and analysed by the consultant in the scope of this contract. The benchmarking of the ESMG is to be seen as an extension of the core objective of this report, in the sense that the ESMG is the immediate environment within which the statistical operations of Eurofound are planned, implemented, monitored and evaluated. In light of the above, the consultant may not have evidence on the existence of some of the methods or tools available to Eurofound. However, the complete listing of all the QAF indicators that are relevant and applicable to Eurofound can be of further use to the Foundation for internal benchmarking.

Note 3: In some cases, specific indicators or methods listed in the QAF are not applicable or relevant to Eurofound; these cases are identified by 'Not relevant' or 'Not applicable'.

Table 1: Correspondence between QAF methods and Eurofound methods

INSTITUTIONAL ENVIRONMENT	
<p>CoP principle: Commitment to quality</p> <p>Statistical authorities are committed to quality. They systematically and regularly identify strengths and weaknesses to continuously improve process and product quality.</p>	
<p>Indicator 1: Quality policy is defined and made available to the public. An organisational structure and tools are in place to deal with quality management.</p>	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
A quality commitment statement is made publicly available, laying out principles and commitments related to quality in statistics.	Eurofound's web page informs about the Agency's commitment to quality, mentioning the general ESS quality criteria.
There is a clear organisational structure for managing quality . Examples of such a structure are a quality committee, a quality manager, a centralised quality unit and other structures (for example, a selected group of staff trained as 'quality pilots' to act as project or process coaches or advisers).	NA
Definition of quality guidelines on how to implement quality management within the statistical production process	<p>The description of its specific statistical production process and the identification of the documentation for each stage are provided. The ESMG covers the nine main processes of the GSBPM, identifying the responsible parties, and includes other processes specific to Eurofound's survey operational framework (such as procurement).</p> <p>Methods for monitoring quality of each stage are not provided, although process controls are identified. Methods for real-time measurement of quality at each stage are envisaged for the future (see page 7 of the ESMG).</p>
Availability of quality guidelines	The ESMG is not made available to users.
Infrastructure for documentation that ensures updated documentation on quality	The ESMG is considered a work in progress; Eurofound mentions that it will be reviewed and renewed annually in order to incorporate the new lessons learnt. However, the 2012 restructuring within Eurofound should envisage how to solve any possible negative effects that may derive from a restructuring process and (at least) try to maintain the efforts and resources dedicated to quality issues.
Training courses are available to relevant staff on a regular basis.	Survey-related training is reported to be available in Eurofound on request.
<p>Indicator 2: Procedures are in place to plan and monitor quality of the statistical production process.</p>	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
Methodological and technical support and general tools are provided by specialised units (quality, methodology, IT) for implementing process quality monitoring or a quality assurance plan.	There is a transversal Survey Methodology Working Group in Eurofound with the objective of contributing to the improvement of the surveys through internal and external capacity building and methodological research.
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Procedures to monitor process quality in different stages of the statistical production	The ESMG mentions that monitoring of key process variables should be considered in the future.
A quality assurance plan describing the working standards, the formal obligations and the set of quality control actions to prevent and monitor errors, to	The ESMG envisages a specific quality assurance plan, such as a document or a chapter in the ToR, for each survey. Thus, the quality assurance plan is

<p>evaluate quality indicators and to control different points at each stage of the statistical process.</p> <p>The quality assurance plan or any similar scheme:</p> <ul style="list-style-type: none"> • takes user's needs into account and checks the relevance of the statistical process; • ensures effective technical and organisational design; • assures the quality of data collection; • assures the quality of data treatment (coding, editing, imputation and estimation); • ensures the systematic examination of possible trade-offs in quality; • makes information accessible and comprehensible to users, and collects reactions and feedback from users; • ensures suitable metadata is provided to users to aid their understanding of quality. 	<p>expected to be developed prior to the call for tenders, so that potential contractors are informed about quality expectations and can include their proposal for quality management as part of their tenders. The quality assurance plan will be either done by Eurofound or a contractor. The ESMG also indicates the envisaged structure of the quality assurance plan: the different phases in the survey process; agents involved in each of the phases; measurable outcomes of each of the phases (both minimal and optimal); and actions of the agents involved to achieve desirable outcomes and control the achievement of outcomes.</p> <p>The ToR of the third EQLS does not include a specific section detailing the quality assurance plan, but requires interested tenderers to provide a detailed description of the quality assurance methods that will be used.</p>
<p>Indicator 3: Product quality is regularly monitored, assessed with regard to possible trade-offs, and reported according to the quality criteria for European statistics.</p>	
<p><u>QAF methods at institutional level</u></p>	<p><u>Methods available in Eurofound</u></p>
<p>Procedures to monitor product quality (quality reporting)</p>	<p>The ESMG identifies among the quality management measures the quality control plan and the quality control reports. For the third EQLS, the quality control plan should be drafted by the tenderer in its technical offer. (This was later discussed and approved by Eurofound.) Quality control reports should be drafted by the contractor in order to ensure that all contract specifications for the data collection have been followed. For the third EQLS, the quality control reports had to provide the information in a standard and comparable way and had to cover the main data collection and processing phases.</p>
<p>User satisfaction surveys (or similar) are implemented on a regular basis and their results are made public and incorporated in quality reports where useful, since they monitor 'relevance' among other dimensions.</p>	<p>The ESMG provides information about the existence of a review and consultation phase, involving stakeholders and experts, in order to receive user feedback prior to the design of the survey. Furthermore, data user surveys, measuring the satisfaction of previously implemented survey round(s), are carried out as web surveys. In preparation for the third EQLS, a data user web survey was carried out in 2010 and its results are quoted in the quality assessment of the second EQLS (Eurofound, 2011, pp.27–28).</p>
<p><u>QAF methods at product/survey level</u></p>	<p><u>Methods available in Eurofound</u></p>
<p>User-orientated quality reports are made available to the public.</p>	<p>The third EQLS analysis report <i>Quality of life in Europe: Impacts of the crisis</i> includes information on the survey methodology, the presentation of results and the limitations of the survey.</p> <p>The reporting and data dissemination phase, as described in the ESMG, also provides for the inclusion of this information through the dissemination channels used for publishing the survey results.</p>
<p>Producer-orientated quality reports are published regularly.</p>	<p>An external quality assessment is contracted by Eurofound at the end of each survey round. The quality assessment reports are published on the</p>

	Eurofound web site, in addition to the analysis report and the data sets.
Product quality monitoring: user and producer quality reporting are used for regular quality monitoring over time.	The ESMG (a work-in-progress document, envisaged for annual review) benefits from the post-survey external quality assessment reports of particular Eurofound surveys.
Indicator 4: There is a regular and thorough review of the key statistical outputs also using external experts where appropriate.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
A plan for implementing quality reviews (auditing and self-assessment) is defined and implemented regularly for key statistical outputs.	NA
A structure for quality reviews is in place for internal audits and self-assessments.	NA
Training of internal auditors	NA
Reference documentation for quality reviews (such as quality guidelines and questionnaires)	NA
The findings of the quality reviews result in action plans .	NA
Feedback from users is used as input for actions plans.	Stakeholders and experts are consulted during the review and consultation process. Their suggestions are taken into account in the survey planning and the questionnaire drafting. Furthermore, the data user survey is also considered a post-survey action intended to provide recommendations and suggestions for forthcoming survey rounds.
Deployment of external experts (external experts are deployed to review key statistical domains)	External experts are involved in the consultation process.
Benchmarking on key statistical processes with other statistical authorities is carried out to identify good practices.	Quality assessment reports (post-survey assessment) benchmark the survey processes and their outputs with other statistical operations.
STATISTICAL PROCESSES	
CoP principle: Sound methodology	
Sound methodology underpins quality statistics. This requires adequate tools, procedures and expertise.	
Indicator 1: The overall methodological framework used for European statistics follows European and other international standards, guidelines and good practices.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
A standard methodological document integrating the methodological framework and the procedures for implementing statistical processes.	Not available because the data collection and processing phases are externally contracted. Some specific statistical processes are defined by the contracted company (such as sampling frame and weighting). However, the ToR for the survey implementation contract includes general requirements on all of these processes.
Explanation of divergence from international recommendations.	NA
Indicator 2: Procedures are in place to ensure that standard concepts, definitions and classifications are consistently applied throughout the statistical authority.	

<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
Concepts, definitions and classifications are applied in accordance with European legislation and are documented.	The questionnaires are designed by Eurofound and they follow international standards, at least for the core social variables.
A methodological infrastructure is in place that defines statistical methods, monitors their implementation and validates the results. In particular, it defines and offers standard tools for every stage of the business process model (for example, sampling, collecting and processing data).	Not available because the data collection and processing phases are contracted. Some specific statistical processes are defined by the contracted company (such as weighting and sampling frame). However, the ESMG and the ToR for the survey implementation contract include general requirements on all of these processes.
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Surveys or statistical processes benefit from the views of relevant experts and users where appropriate.	Stakeholders and experts are consulted during the review and consultation process. Their suggestions are taken into account in the survey planning and the questionnaire drafting.
Methodological documentation is elaborated for each statistical process, containing all pertinent information on metadata (such as concepts, methods and classifications) and is made public, at least in summary form.	Eurofound provides the contractor with the draft questionnaire and the glossary of the questionnaire. The questionnaire is finalised in close cooperation with the contractor, and the glossary is updated accordingly. Final questionnaires are made public on the Eurofound web site after the survey is implemented.
Staff members attend seminars and workshops on the application of standards, classifications and so on.	NA
Indicator 3: The business register and the sampling frame for population surveys are regularly evaluated and adjusted if necessary in order to ensure high quality. Not applicable	
Not applicable since Eurofound does not have direct access to sampling frames. ² However, Eurofound sets out the quality requirements for the registers used for sampling in the ToR of the third EQLS: <i>An updated, good quality sampling frame (register) with addresses/persons should be used whenever possible. The sampling frame should cover at least 95% of households/persons in the country. ... Only when a suitable sampling frame is not available for a country, the random route method should be used for selection of households and individuals. If Eurofound deems that the register proposed is unacceptable, Eurofound can insist that the contractor proposes an alternative. If the alternative is still unacceptable to Eurofound, then it will insist that the contractor uses the random route method. Tenderers are asked to propose the best quality and most appropriate registers available.</i>	
Indicator 4: Detailed concordance exists between national classifications systems and the corresponding European systems.	
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Consistency of national classifications	The same classifications are used in all the countries surveyed as a consequence of the use of a common master questionnaire.
Correspondence table	NA
Indicator 5: Graduates in the relevant academic disciplines are recruited. Not totally relevant for Eurofound (since surveys are only one of its fields of action)	
Although not totally relevant for Eurofound, the consultant's subjective assessment (derived from exchanges with the project team) is that the staff engaged in survey projects have the appropriate qualifications from relevant disciplines.	

² Remarks on the implications of the access to sampling frames are available in the chapter with recommendations.

Indicator 6: Statistical authorities implement a policy of continuous vocational training for their staff. Information not available to the consultant	
Indicator 7: Cooperation with the scientific community is organised to improve methodology, the effectiveness of the methods implemented and to promote better tools where feasible.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
Contact with the scientific community Collaboration with colleagues at international level Participation and presentations at conferences Organisation of conferences	The existence of collaboration with the scientific community is directly derived from the activity of Eurofound. Specifically for the third EQLS, when preparing the survey, a seminar and training on questionnaire design was organised at Eurofound to assist with the process (January 2011).
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
External evaluation: Evaluations, assessments, or audits of the methods used are requested from external experts where appropriate.	Quality assessment reports, prepared by external experts, are produced for the Eurofound surveys. This report is written in the scope of the contract for the quality assessment of the third EQLS.
CoP principle: Appropriate statistical procedures Appropriate statistical procedures, implemented from data collection to data validation, underpin quality statistics.	
Indicator 1: When European statistics are based on administrative data, the definitions and concepts used for administrative purposes are a good approximation to those required for statistical purposes. Not applicable to Eurofound	
Indicator 2: In the case of statistical surveys, questionnaires are systematically tested prior to data collection.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
A procedure to assess and validate questionnaires involving relevant experts is in place.	The ESMG mentions among the main operational processes the Questionnaire Development Group (QDG), which aims to involve external experts who can help to increase survey relevance in general and validity of survey questions in particular.
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Testing of questionnaires prior to data collection (such as questionnaire pre-test, pilot in real situation and in-depth interviews)	The ESMG establishes the pre-testing of the survey questionnaire and pilot interviews as one of the actions for finalisation of the questionnaire. Questionnaires should be tested in two different countries (one of them an English-speaking country). The indicative number is 50 per country for quantitative testing and 15 per country for qualitative testing. After that, pilot interviews took place in all countries to test the functioning of the questionnaire as well as the fieldwork.
Use of test results in the process of implementing the final questionnaire documented in a report	The expected output for the pre-test phase is a pre-test report containing input for the final English master questionnaire and an updated glossary, and a pilot report to document any fine-tuning in the pilot phase.
Indicator 3: Survey designs, sample selections and estimation methods are well based and regularly reviewed and revised as required.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
An organisational structure for guidelines, methodologies and examination of the methods used for survey sampling, sample selection and estimation methods	General specifications, following the recommendations in the ESS, are provided in the ToR for each survey implementation. The specific details are defined by the contractor during survey implementation and reported to Eurofound, which should revise and approve them.

Reporting on methods (sample selection and estimation) to the public	The third EQLS analysis report includes information on the sample selection and the estimation. Technical reports, as provided by the contractor and after revision and approval from Eurofound, are also made available to the public along with the results of the survey.
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Compliance of survey designs and sample selections with standards	The use of non-probabilistic sample designs (random routes) is not in line with recommendations for ESS surveys.
Renewal of sample designs for recurrent surveys	NA
Comparable methods for calculating accuracy	Accuracy of the statistical output is calculated in the post-assessment phase, through the quality assessment reports.
Measurement and reporting to users of sampling precision	Sampling precision is calculated through the quality assessment reports, which are made public on the Eurofound web site.
Methodological rules are applied in estimation , that is, estimation methods, including the correction of non-response, data calibration and seasonal adjustments, follow transparent methodological rules.	The contractor has to provide details on the methodological rules applied in estimation, through quality and technical reports. General requirements are provided in the ToR. The assessment of the rules applied is done through the quality assessment reports (post-survey).
Indicator 4: Data collection, data entry and coding are routinely monitored and revised as required.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
An organisational structure provides guidelines, recommends appropriate methodologies and periodically examines the methods used for data collection, data entry and coding.	General requirements are provided in the ToR for the survey implementation. The control of the methods used and of any other statistical process is the responsibility of the project manager.
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Optimisation of data collection for reducing costs and response burden, and for improving accuracy and reducing non-sampling errors	The EQLS is organised as a wave survey and not as a panel survey. Thus the burden for each respondent, who is required to answer only once to the questionnaire, is not high. A combination of random probability sampling and random routes was implemented. When the random route was used, the address selection and interviewing phases were carried out in separately.
Provision of documents to respondents (such as letters, questionnaires and leaflets) that are regularly reviewed	Fieldwork materials (introductory letter, questionnaire and so on) are prepared and distributed to interviewers by the contractor.
A procedure to monitor data collection techniques	Fieldwork supervision is carried out by Eurofound staff through fieldwork visits and progress monitoring (assessment of timelines and evaluation of progress reports prepared by the contractor).
Training courses for interviewers	Training courses are provided.
Procedure to follow up non-response	The procedures to follow up non-response are detailed by the contractor, this task being part of the technical offer.
Data-coding methods	The methods used for data coding are detailed by the contractor, this task being part of the technical offer. The ToR only establishes the variables for which coding is necessary. Eurofound revises and approves

	the coding strategy proposed by the contractor. A detailed coding report is provided by the contractor at the end of the contract.
Revision of automatic coding methods.	NA
Quality indicators related to data collection and coding are produced and analysed according to a quality assurance plan.	The ESMG lists the following dimensions for assessing the fieldwork phase: conformity with sample design, contact rates, response rates, conformity with the schedule and real-time quality assessment of fieldwork (in other words, procedures implemented to check quality in real time during the fieldwork). For data coding, the calculation of a coefficient of agreement (the ratio of the commonly assigned codes to the total examined) is proposed.
Support to respondents (such as help on-line, freephone number and support from statisticians)	A phone number, email address and Eurofound's web site address are provided in the introductory letter given to sampled respondents if they wish to obtain more information.
Indicator 5: Appropriate editing and imputation methods are used and regularly reviewed, revised or updated as required.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
An organisational structure for guidelines, methodologies and examination of the editing and imputation methods used	General requirements are provided in the ToR for the survey implementation. The control of the methods used is the responsibility of the project manager. The ESMG proposes the calculation of the failure rate (rate of edit failures, per variable and country) for the evaluation of the data editing.
Promotion and sharing of procedures for editing and imputation	General requirements are provided in the ToR for the survey implementation.
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Analysis of the editing and imputation as part of assessing quality of the data collection	The contractor has to provide a data editing and coding report. The ESMG lists the following information that should be provided along with the data set: rules for editing that are implemented on the microdata to identify errors; rules for the identification of missing values (item non-response), methods used to correct the data (including estimation/imputation methods, automatic correction, re-contacting respondent). The ESMG also identifies the quality controls that can be considered for assessing the data processing, namely: the number of variables subject to editing (at variable/question and respondent levels) and the extent of recoding (the percentage of assigned codes subject to quality control and recoding).
Compliance of editing and imputation techniques with standards	The contractor has to provide a data editing and coding report.
Indicator 6: Revisions follow standard, well-established and transparent procedures.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
Guidelines and principles related to revisions of published statistics	NA

Promotion of methodological improvements (such as seminars on methodology, expert meetings, self-assessments and audits)	A transversal Survey Methodology Working Group in Eurofound has the objective to contribute to the improvement of the surveys through internal and external capacity-building and methodological research.
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Explanations and publication of revisions	NA
Quality indicators on revisions	NA
Indicator 7: Statistical authorities are involved in the design of administrative data in order to make administrative data more suitable for statistical purposes. Not applicable to Eurofound	
Indicator 8: Arrangements are made with owners of administrative data that set out their shared commitment to the use of these data for statistical purposes. Not applicable to Eurofound	
Indicator 9: Statistical authorities cooperate with owners of administrative data in assuring data quality. Not applicable to Eurofound	
CoP principle: Non-excessive burden on respondents The reporting burden is proportional to the needs of the users and is not excessive for respondents. The statistical authorities monitor the response burden and set targets for its reduction over time.	
Indicator 1: The range and detail of European statistics demands are limited to what is absolutely necessary.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
Priorities for European statistics	Quality of life is on the political agenda of the European Commission and on the working agenda of Eurostat, in particular, through the Commission communication ‘GDP and beyond’ (2009), and the publication of the report by Stiglitz, Sen and Fitoussi (2009). Thus Eurofound’s work on gathering and analysing (from an expert view on societal changes) data may contribute to one of the priority domains in the ESS.
Verification of response burden and level of details	NA
Assessment of the statistical work programme	Not applicable to Eurofound
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Analysis of the needs of statistical information (needs of statistical information and level of detail by domain are analysed in the ‘Specify needs’ phase of the GSBPM)	The ESMG establishes a review and consultation phase, which is intended to identify the needs of statistical information related to the theme of the survey.
Measurement of response burden	NA
Justification of each collected variable	NA
Consideration of alternative sources	NA
Indicator 2: The reporting burden is spread as widely as possible over survey populations.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
Reviews of the reporting burden	NA
Action plans for simplification/modernisation to decrease the response burden	NA
Performance indicators on the reporting burden	NA

Use of statistical sampling methods to ensure the reporting burden does not fall unnecessarily on particular categories of respondents	Sampling methods are detailed by the contractor, based on the sampling frame it has available in each country.
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Reduction of the reporting burden by appropriate sampling design	The sampling design is provided by the contractor. The third EQLS ToR does not include any requirements on the reduction of the reporting burden.
Calculation of the reporting burden	The reporting burden is not calculated. However, due to the frequency of Eurofound's surveys (the EQLS takes place every four years), the burden should not be high.
Limitation of questions to collect information that will not be published	There are no questions in the EQLS that are not intended for reporting and publishing.
Indicator 3: The information sought from businesses is, as far as possible, readily available from their accounts, and electronic means are used where possible to facilitate its return. Not applicable to Eurofound's EQLS	
Indicator 4: Administrative sources are used whenever possible to avoid duplicating requests for information. Not applicable to Eurofound	
Indicator 5: Data sharing within statistical authorities is generalised in order to avoid multiplication of surveys.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
Technical tools for data sharing (such as formal agreements, web services and common databases)	NA
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
Documentation of repositories of data	Eurofound uses the UK Data Archive for disseminating and documenting microdata.
Sharing of data archives	NA
Indicator 6: Statistical authorities promote measures that enable the linking of data sources in order to reduce the reporting burden. Not applicable to Eurofound	
CoP principle: Cost effectiveness Resources are used effectively	
Indicator 1: Internal and independent external measures monitor the statistical authority's use of resources.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
Indicators of human and financial resources are monitored centrally and regularly reported to management.	Eurofound's activities and project management are regularly audited by the Court of Auditors and the European Commission's Internal Audit Service (IAS). The IAS examined Eurofound's survey management in 2011.
Allocation of resources to statistical processes Evaluation of human resources Staff opinion surveys Reviews of IT infrastructure Procedures to calculate ex-ante costs	NA
Indicator 2: The productivity potential of information and communications technology is being optimised for data collection, processing and dissemination. Information not available to the consultant	

Indicator 3: Proactive efforts are made to improve the statistical potential of administrative data and to limit recourse to direct surveys. Not applicable to Eurofound	
Indicator 4: Statistical authorities promote and implement standardised solutions that increase effectiveness and efficiency.	
<u>QAF methods at institutional level</u>	<u>Methods available in Eurofound</u>
Standardised programmes and procedures for statistical processes are defined and implemented in the main stages of statistical production areas (such as sampling, registers, data collection and data exchange) according to the business process model.	The fieldwork and data processing for the third EQLS was contracted. However, all the phases outsourced by Eurofound form a continuous flow of related sub-processes within the GSBPM. The GSBPM is the standard model for quality and metadata management established by UNECE, Eurostat and OECD. The ToR for the survey implementation establishes general requirements that should be accomplished by the contractor.
A strategy to adopt or develop standards in various fields (such as quality management, process modelling, software development, software tools, project management and document management)	For the management of survey projects, Eurofound prepared the ESMG, a work-in-progress document aimed at developing internal standards. This document should be reviewed annually.
<u>QAF methods at product/survey level</u>	<u>Methods available in Eurofound</u>
A statement in the methodological documentation	NA

Main conclusions from the assessment of Eurofound's QAF

Eurofound's QAF covers the vast majority of the recommended methods and tools proposed by the ESS QAF, which have been customised for the specific activity and purpose of the Foundation. Flexibility is maintained, while quality is ensured among Eurofound's statistical operations.

Eurofound adheres to the highest standards set for the production of official statistics, and it has developed a quality framework (the ESMG) that provides a guide that is tailored to meet Eurofound's needs. The ESMG expands the scope of the GSBPM by incorporating the procurement process among its phases. However, the ESMG is considered a work in progress, and requires annual renewals to make improvements and incorporate lessons learnt.

The current general trend in public budget cuts may hamper the continuity of newly undertaken actions that do not have a long tradition within the institution. This may be the case with the recent Eurofound quality framework, which is itself a newly undertaken action. Quality measures should be maintained and quality actions should be improved, affirming the institution's commitment to quality, in order to ensure the credibility of the data derived from Eurofound's statistical operations. This requires, as envisaged in the ESMG, the establishment of a quality assurance plan, as a document or chapter in each survey's terms of reference.

2 Process assessment of the third EQLS

The second chapter of this quality assessment report is focused on the survey processes of the third EQLS. This quality assessment has been performed by the consultant in the following three stages.

1. First, the quality of the survey processes of the third EQLS in the 34 countries surveyed is reviewed against the phases of the GSBPM. This primary benchmarking framework makes it possible to identify the phases or processes that are exclusively or mostly implemented by the survey contractor.
2. For each of these phases or processes, a process flowchart is drawn, which permits the identification of those sources of variation that directly affect the quality of the output. The flowcharts present the sequences of subprocesses, and identify the inputs and the outputs, as well as the main responsible party of the process (see Annex 1).
3. In the third step, the coherence of the survey subprocesses with the requirements stated in the ToR is assessed and key variables defined as 'compliant with the ToR' are analysed. The possible outcomes are: (1) compliant, (2) not compliant, (3) compliant with minor deviations and (4) not available.

The main conclusions reached from the assessment of the survey process of the third EQLS are included at the end of this chapter. In addition, Chapter 4 gives an overview of all the conclusions formulated in this report and provides guidelines for improvement.

The GSBPM can be interpreted as the union of the main international models and standards³ since it reflects all their components. The GSBPM is shown in Figure 1, which also identifies in grey the subprocesses implemented by the survey contractor or those which required its contribution. The remaining subprocesses are those exclusively implemented by Eurofound or by other organisations, such as process 9.2 – Conduct evaluation, which is the subject of this contract.

Of all the third EQLS survey processes where the survey contractor intervened, the most relevant are the Collect and Process phases. However, the survey contractor also contributed to processes such as Design, Build, Analyse and Evaluate. The EQLS survey process carried out by the contractor is composed of the following main phases (that is, groups of subprocesses as implemented by the survey contractor according to the technical specifications):

1. questionnaire design and testing;
2. survey planning;
3. data collection;
4. data processing and reporting.

Each of these phases, flow diagrams of which can be found in Annex 1, is analysed in detail in the following sections, according to the methodology presented at the beginning of this chapter. It is important to note that, as the figure displays, all the phases outsourced by Eurofound form a continuous flow of related subprocesses within the GSBPM.

³ Information Systems Architecture for National and International Statistical Offices, UN 1999, and the Eurostat Cycle de Vie des Données (CVD) model

Figure 1: The GSBPM






Table 2: Questionnaire design and testing phase in the 34 countries surveyed – coherence with ToR

	Subprocess	ToR requirements	Assessment of compliance
●	Preparation and submission of a pre-test plan	Pre-test plan	COMPLIANT
●	Preparation of pre-test fieldwork materials	General requirements (more details included in the ESMG)	COMPLIANT
●	Translation of the questionnaire into French for pre-test	Translation of the draft master questionnaire into one other language	COMPLIANT
●	Questionnaire and glossary testing: <ul style="list-style-type: none"> pre-test in the UK and Belgium quantitative testing: 30 interviews per country qualitative testing: 15 interviews per country 	General requirements from the ESMG: <ul style="list-style-type: none"> questionnaire testing in two different countries (one of them an English-speaking country) quantitative testing: 50 interviews per country qualitative testing: 15 interviews per country. 	COMPLIANT Note: ESMG recommendations mention 50 quantitative interviews per country. It is understood that the number of quantitative interviews carried out was previously agreed with Eurofound. Comment: For non-EU countries, a pre-test of cognitive interviews with five respondents per country was organised in all countries (except Iceland).
●	Preparation and submission of a pre-test report	Pre-test report	COMPLIANT
●	Preparation of final master questionnaire in English	The contractor will be involved in developing or improving some parts of the master questionnaire after the pre-test.	COMPLIANT
●	Questionnaire translation and validation	Questionnaire translation (the ToR details the procedure to be used for the translation and establishes the criteria for the selection of translators).	COMPLIANT Comment: For non-EU countries (except Iceland), a more extensive translation process was applied, given the fact that the EQLS was being implemented for the first time in these countries.
●	Preparation and submission of translation reports	Questionnaire translation and verification report (the ToR lists the contents of the report).	NOT AVAILABLE Comment 1: The consultant does not have access to the intermediary translation and verification reports, but only to the final translation report, which does not include all sections detailed in the ToR (for example, a list of differences between questionnaires to be used in territories or countries using the same language).

	Subprocess	ToR requirements	Assessment of compliance
			Comment 2: The translations were validated by Eurofound (on the basis of in-house human resources), except for Danish, Estonian, Greek, Latvian, Maltese, Romanian, and Polish, which were validated by the fieldwork coordinator (p.5 of the translation report).
●	Preparation and translation of the final fieldwork materials	The coordination centre is responsible for preparing the final functionally equivalent language versions of the questionnaire, the showcards and all other fieldwork materials.	COMPLIANT
●	Pilot testing – technical report and quality control report: ‘a pilot was carried out to test the EQLS questionnaire and fieldwork, with at least 25 cases in each country covered by the EQLS’.	Pilot phase: piloting should be done in all languages of the country.	COMPLIANT
	Translation after pilot (questionnaire and fieldwork materials) – translation report: ‘after the pilot phase a few questions in the main questionnaire were adapted. An independent translation agency translated these adaptations in all local languages. The local project managers double-checked the translations. After this, the contractor provided each country with a printable Excel file of the questionnaire in the local language (documents were also provided to Eurofound)’. The same procedure was used for the glossary and the contact sheet. The introduction letter, national briefing documents and the ‘Sorry you were out’ card were translated by the countries and sent to Eurofound.	Pilot phase (no specific requirements)	NOT AVAILABLE Comment: No specific requirement was included in the ToR for how the translations should be done after the pilot. The same steps should have been followed as for the initial translation of the questionnaire (for example, the translation should have been back-checked).

Table 3: Survey planning phase – coherence with ToR

	Subprocess	ToR requirements	Assessment
	<p>Sampling – EU27 plus Turkey, Croatia, the former Yugoslav Republic of Macedonia, Kosovo, Serbia, Montenegro and Iceland; persons aged 18+.</p> <p><i>Sampling report</i></p> <ul style="list-style-type: none"> • Sampling frame proposal • Sampling plans for each country • 16 countries were ‘random probability countries’: 15 EU Member States (Belgium, the Czech Republic, Denmark, Hungary, Ireland, Latvia, Luxembourg, Malta, the Netherlands, Austria, Poland, Slovenia, Finland, Sweden and the UK) and Iceland. • 18 countries were ‘enumerated random routes countries’: 12 EU Member States (Bulgaria, Cyprus, Germany, Estonia, Greece, Spain, France, Italy, Lithuania, Portugal, Romania and Slovakia) plus Turkey, Croatia, the former Yugoslav Republic of Macedonia, Kosovo, Serbia and Montenegro. • Sample stratified by NUTS 2/3 and degree of urbanisation, except for Malta. • Sample selection: Primary sampling units (PSUs) were selected randomly in each stratum; within each PSU addresses/persons were chosen at random from the available register or by random route (in the Netherlands and Sweden, a one-stage random stratified sampling of registered individuals was carried out); the maximum size was 20 addresses/persons per PSU (except in Malta, Sweden and the Netherlands, where samples were not clustered, but drawn from individual-based registers). • For all countries, PSUs were greater than 100 	<p>Sampling –EU27 plus Turkey, Croatia, the former Yugoslav Republic of Macedonia, Kosovo, Serbia, Montenegro and Iceland; persons aged 18+.</p> <p><i>Sampling procedures</i></p> <ul style="list-style-type: none"> • Updated, good-quality sampling frame, covering at least 95% of households/persons in the country. • If a suitable sampling frame is not available for a country, the random route should be used. • Sample stratified by NUTS 2 region and degree of urbanisation. • Sample selection: PSU and households/persons selected randomly; each PSU has a maximum size of 20 possible addresses/persons (the selection will be done centrally). • Sample selection for random routes: the address selected randomly will be the starting address for a cluster of sampled addresses in a PSU; the rest will be selected with a systematic procedure. 	<p>COMPLIANT</p> <p>(See Annex 2 for a detailed description of the sampling method per country.)</p> <p>Comment: The sampling methods (Annex 2) followed in the different countries fall into two basic categories: register-based random probability sampling and random-route sampling. This heterogeneity may have some effect on the comparability between countries.</p>

	Subprocess	ToR requirements	Assessment
	<p>persons, except for Montenegro and Iceland.</p> <ul style="list-style-type: none"> An enumeration phase for the pilot sample (60 addresses) was carried out in EU countries; in non-EU countries a first batch of enumerated addresses was checked before the countries were allowed to enumerate the full main sample. All random route countries used a three-stage sample design (except Estonia and Lithuania). 		
	Preparation and submission of weighting and coding reports	<p><i>Weighting</i></p> <p>Three types of weighting and three weights:</p> <ul style="list-style-type: none"> selection probability weights calibration weights population weights <p>The weighting report should contain information on the weights applied to each national data set and on the population figures for each weighting variable.</p> <p>Coding report: no specific requirements</p>	<p>COMPLIANT</p> <p>Comment: Weights calculated at country level were beyond an adopted interval (smaller than 0.3 or larger than 3) in 1.3% of the cases. These weights have been trimmed to 0.3 and 3 respectively.</p>
	<p><i>Training of interviewers for pilot</i></p> <ul style="list-style-type: none"> A draft interviewer manual in English was sent to Eurofound for approval (in June 2011). The translation was made after approval (all translations were finalised in September 2011). The technical report and the quality control report make reference to the contents of the project manual and interviewer instructions (including measures to increase response rates). 	<p>No specific requirements are established for the training of interviewers for the pilot test.</p> <p><i>Instructions to interviewers and training</i></p> <ul style="list-style-type: none"> Fieldwork will be conducted on the basis of detailed and uniform instructions on the procedure to be followed for selecting the interviewee and for the interview itself. The master English version of instructions shall be approved by Eurofound before translation. The instructions should list measures for conversion of non-response (refusal) to response. 	COMPLIANT




	Subprocess	ToR requirements	Assessment
	<p><i>Enumeration phase for pilot</i></p> <ul style="list-style-type: none"> • Sampling report: ‘Due to the length of the sample, the decision was taken to enumerate the pilot sampling points first and to enumerate the main sample after the pilot’. • The enumeration phase for the pilot in EU Member States was made in July 2011; 60 addresses were enumerated (according to quality control report); • The enumeration phase for the pilot in non-EU countries took place in February–March 2012. 	<p>Not required in the ToR for the pilot phase, but detailed for the main fieldwork.</p> <p>Specific requirement on the training that should be provided to enumerators: ‘Training should be provided in advance of the enumeration phase to all enumerators’.</p>	COMPLIANT
	<p><i>Pilot phase</i></p> <ul style="list-style-type: none"> • For EU countries, it was carried out between 20 July and 8 August 2011. • For non-EU countries, it was carried-out between 18 April and 7 May 2012, except for Iceland where the pilot was carried between 8 and 25 May 2012. • At least 25 interviews were covered in each country. • The pilot report for the EU27 was sent to Eurofound on the 19 August 2011. • The final version of the pilot report for non-EU countries was sent to Eurofound on the 7 June 2012. 	<p><i>Pilot phase</i></p> <ul style="list-style-type: none"> • Duration of approximately two weeks. • Sample of 25 interviews. • Piloting should be done in all languages of the country. • A detailed report on piloting should be prepared by Eurofound no more than five days after piloting has been completed. 	<p>COMPLIANT WITH MINOR DEVIATIONS</p> <p>Comment 1: The pilot report in EU27 was submitted with a slight delay.</p> <p>Comment 2: Some of the sampling plans for the EU27 countries were modified after the pilot. In the non-EU countries, all issues related to the sampling plans were solved before the pilot stage.</p>

Table 4: Data collection phase – coherence with ToR requirements

	Subprocess	ToR requirements	Key variables
●	<p><i>Enumeration phase</i></p> <ul style="list-style-type: none"> For Bulgaria, Cyprus, Germany, Estonia, Greece, Spain, France, Italy, Lithuania, Portugal, Romania, Slovakia, Turkey, Croatia, the former Yugoslav Republic of Macedonia, Kosovo, Serbia and Montenegro; First stage: in the EU27 enumeration of the pilot sampling points (60 addresses); for non-EU countries no separate batch of addresses for the pilot stage has been enumerated (these were selected at random from the main sample). Second stage: enumeration of the main fieldwork. A sample list with eligible addresses for each PSU was developed. For each country, 10% of the sample plus two sample points were back-checked; Details of the enumeration process and on the back-check of enumerated samples are provided in the sampling report. 	<p><i>Enumeration phase for random route countries</i></p> <ul style="list-style-type: none"> Enumeration of addresses in a random route walk shall be a separate task to the fieldwork and shall be completed no later than one month prior to the fieldwork. Training should be provided in advance of the enumeration phase to all enumerators. Routing slips should be prepared and given to interviewers. A minimum of 10% of the routes must be checked against the selection rule. Enumeration and the register checking report should be provided to Eurofound prior to the start of the fieldwork. 	<p>COMPLIANT WITH MINOR DEVIATIONS</p> <p>Comment: Reporting on back-check was included in sampling report delivered to Eurofound on 30 September 2012 (after the start of the fieldwork, 12 September 2012).</p>
●	<p><i>Training of national coordinators and of interviewers</i></p> <ul style="list-style-type: none"> For EU27 countries, a one-day EQLS seminar in Brussels (2 September 2011) for project managers and country coordinators. For non-EU countries, the seminar was organised in Leuven (12 April 2012). All interviewers participated in an in-depth briefing of approximately a half-day duration. No interviewer was allowed to conduct interviews without the training. Training sessions were held in central locations by the project manager or research director, in regional centres by supervisors, by telephone (teleconference), or, in some cases, written training with online support and video training. 	<p><i>Training of national coordinators and of interviewers</i></p> <ul style="list-style-type: none"> A one-day briefing seminar shall be organised for representatives of the national agencies (one or two weeks prior to the fieldwork). Training will be provided to all interviewers before fieldwork (either in a central location by the local research director or project manager, personally by supervisors in regional centres or by telephone). 	<p>COMPLIANT WITH MINOR DEVIATIONS</p> <p>Comment 1: In few cases, the training sessions overlapped with the scheduled first days of the fieldwork.</p>

	Subprocess	ToR requirements	Key variables
	<p><i>Fieldwork</i></p> <ul style="list-style-type: none"> • Face-to-face interviews were carried out to persons aged 18+. • Reference sample size was achieved in all the 34 countries. • The average duration of fieldwork was 12 weeks in the EU27, but delays occurred in many of the countries; in non-EU countries average fieldwork duration was nine weeks. • Generally, the interviewer had to contact a respondent at least four times (including the first visit), but more than four visits were recommended to increase response rate. • CAPI technique was used in 20 countries out of the EU27 and in two out of the seven non-EU countries. • PAPI was used in seven EU countries and in five non-EU countries. • The average length of the interview was 38 minutes, with a minimum duration of 15 minutes and of maximum 95. • A minimum and maximum number of interviews per interviewer could not be respected in some cases. • Contact sheets were filled in. • The desired response rate set out in ToR of a minimum 50% was not achieved for most countries. • Weekly reports were prepared and submitted to Eurofound. • For non-EU countries, a contingency plan was designed prior to the data collection in each country to allow monitoring of the EQLS fieldwork. 	<p><i>Fieldwork</i></p> <ul style="list-style-type: none"> • Universe: persons aged 18+. • Reference sample size: 1,000 per EU Member State, except for Germany (2,000), and for France, Italy, Poland and the UK (1,500 each). • Face-to-face interviews in people's homes. • CAPI and PAPI. • For CAPI the programme and application must be tested at least two weeks prior to the fieldwork. • Twelve-week duration starting with 13 September 2011 for the reference sample; for double sample size, the fieldwork period would be of 16–20 weeks. • At least three recalls must be made at each address where contact has not been established initially, with one visit made at the weekend. • Each interviewer may do no fewer than 10 and no more than 30 interviews. • All visits should be recorded as part of the metadata of the survey. • A response rate of at least 50% should be achieved in each country. • Weekly fieldwork reports shall be provided. 	<p>COMPLIANT WITH MINOR DEVIATIONS</p> <p>Comment 1: For the new fieldwork periods in the EU27 and for the minimum and maximum number of interviews per interviewer, agreement was reached with Eurofound.</p> <p>Comment 2: The desired response rate was not achieved. The average response rate of the EU27 was 41.32%, ranging from a minimum of 15.45% in Luxembourg to a maximum of 70.69% in Malta. For non-EU countries, the average response rate was 44.71%, ranging from 17.20% in Iceland to 88.78% in Kosovo.</p> <p>Comment 3: The establishment of a field plan/contingency plan in non-EU countries proved to be effective.</p> <p>Comment 4: Paradata analysis reveals that in all EU countries except Cyprus, at least four visits were required to complete the interviews and thus achieve the sample size. The highest number of visits was registered in the UK (8,990 visits) followed by France (7,620 visits) and Germany (7,530 visits).</p> <p>In two out of the seven non-EU countries surveyed (Kosovo and Montenegro), the sample size was achieved after the third visit. In non-EU countries in general, the number of five or more visits is much lower when compared proportionally to EU countries.</p> <p>This part of the paradata analysis (the number of visits for completing interviews) is included in Annex 3.</p>



	Subprocess	ToR requirements	Key variables
	<p><i>Quality control of fieldwork</i></p> <ul style="list-style-type: none"> • Back-checks involved re-contacting the three types of target persons as per the ToR, based on a back-check WebCATI questionnaire. • Quality back-check could not be completed for all the three types in all the countries. • Fieldwork visits were carried out by Eurofound between 13 October and 2 November 2011 in nine countries. The feedback of Eurofound was provided to the national agencies. No fieldwork visits were organised for non-EU countries. • For the non-EU countries, a system was developed to send daily automatic correction emails to agencies in case errors were found in the daily automatic data control check. This procedure allowed very close monitoring and reduction of data-cleaning tasks. 	<p><i>Quality control of fieldwork</i></p> <ul style="list-style-type: none"> • Quality control procedures should cover at least 10% of respondents, 10% of refusals and 10% of non-contacts. • Fieldwork supervision or visits by Eurofound made according to ESMG. • Quality control report should be provided. 	<p>COMPLIANT WITH MINOR DEVIATIONS</p> <p>Comment: Quality control back-check could not cover the percentage required for all types of target persons in all the countries.</p> <p>With regard to completed interviews, the back-check of 10% was achieved for all 34 countries except Portugal.</p> <p>Refusal back-check could not be carried out in Austria, Bulgaria, Germany, Italy, Luxembourg and Poland due to privacy issues, financial restrictions or for not being acceptable in that country.</p> <p>Non-contact back-check was not carried out in Bulgaria, France, Italy and Luxembourg either because of lack of phone numbers or because of not being acceptable in that country. The percentage was not achieved in several countries.</p>

Table 5: Data processing and reporting phase – coherence with ToR requirements

	Subprocess	ToR requirements	Key variables
●	Data entry for countries using PAPI questionnaires was done via an online system that permitted the data to be sent directly to the central system. PAPI questionnaires were used in 12 countries.	Data entry (for PAPI countries) – No specific requirement	COMPLIANT
●	<p><i>Data coding</i></p> <ul style="list-style-type: none"> The coding process was implemented either by the interviewer during the interview (occupation, income) or at the data-processing stage using SPSS software. A code frame was agreed with Eurofound. The coding process included: <ul style="list-style-type: none"> coding of NUTS 2 (used for the sampling frame and to create a regional variable in the final data set), with regional data double-checked using a post code recode per country; coding of occupation (ISCO-08) directly during the interview; coding of income (from euro in the master questionnaire to local currencies, where applicable); coding of ISCED first-digit categories. 	<p><i>Data coding</i></p> <ul style="list-style-type: none"> Required on variables ‘attained level of education’ (ISCED) and ‘region’ (NUTS 2/NUTS 3). The coding instructions will be provided by the coordination centre. Coding instructions should be approved by Eurofound. Local agencies are responsible for coding of the microdata. 	COMPLIANT
●	<p><i>Weighting</i></p> <p>The weighting report describes the weighting procedures, the weights applied and an analysis on the impact of cross-national weights. Detailed weighting figures per country are also provided. The procedure of weighting design includes selection probability weighting, post-stratification weighting and cross-national population weighting.</p>	<p><i>Weighting</i></p> <p>The following types and weights are required:</p> <ul style="list-style-type: none"> selection probability weights; calibration weights; population weights. <p>The contractor shall provide a report on the weights applied to each national data set and on the population figures for each weighting variable.</p> <p>Analysis showing the effects of weighting on estimates shall also be provided.</p>	<p>COMPLIANT</p> <p>Comment 1: Weights calculated at country level were extreme (larger than 3 or smaller than 0.3) in 1.3% of the cases. These extreme weights were trimmed to 3 and 0.3 respectively. Chapter 4 proposes guidelines to deal with this.</p> <p>Comment 2: As mentioned above, the weights are not meant to provide estimates of totals by grossing up</p>

	Subprocess	ToR requirements	Key variables
			individual records, but to provide estimates of proportions.
	<p><i>Data editing (cleaning)</i></p> <ul style="list-style-type: none"> • Instructions for data editing were prepared and submitted to Eurofound in November 2011. • Data validation was applied through common programming software with one master questionnaire. • Data validation included a three-step process: screening phase, diagnostic phase and treatment phase. An internal tool ('Alberta') of the contractor was used for the identification of lack of data and outliers or inconsistencies via SPSS syntax. • The process is described in the data editing and cleaning report that was provided to Eurofound in July 2012. • Files with 'suspect interviews' and 'warning dataset' were provided to Eurofound in June 2012. 	<p><i>Data editing (cleaning)</i></p> <ul style="list-style-type: none"> • Data validation should be applied at a minimum of two levels: variables and person. • The variables and combination of variables involved and the rules and conditions will be decided in collaboration with Eurofound. • Rules and conditions will be clearly described by the coordination centre and will be applied in an identical way in all countries. • Validation must be applied in an automated way, with the help of suitable software. • The log file of implemented checks must be provided to Eurofound. • A report on data Cleaning and editing should be prepared. • Data from the third EQLS will be entered in a format compatible with the previous editions of the EQLS. 	COMPLIANT
	<p><i>Microdata and analyses</i></p> <p>According to the timetable included in the technical report, the final draft data set, tables and reports for the third EQLS in the EU27 were provided to Eurofound in July 2012, and were approved shortly after. For non-EU countries, these were provided on 26 November 2012.</p>	<p><i>Microdata and analysis</i></p> <ul style="list-style-type: none"> • The microdata with all raw data collected in the field (interview, contact sheet and interview protocol) plus national and cross-national weighting and quality control information must be delivered to Eurofound in an SPSS file. • An SPSS file integrating the third EQLS results into a database provided by Eurofound, which contains microdata from the two previous rounds of the survey (the weights and metadata should also be recorded in this file). • Third EQLS data shall be delivered as well in an ASCII text data file or in comma-delimited format. A list of variable names and codes used in the survey must be provided in a data file readable by other statistical programmes. • Standard tables A, B and C shall be provided. • Statistical metadata descriptions shall be provided. 	COMPLIANT

Main conclusions on the process assessment of the third EQLS

The analysis of the EQLS procedure and the GSBPM proves compliance with the international standard statistical process model established by Eurostat, UNECE and the OECD. This compliance is a positive aspect that also allows for easy and effective monitoring by Eurofound of the external intervention by the contractor in the production process. Furthermore, the vast majority of the subprocesses outsourced have been effectively accomplished by the contractor, as shown in Tables 2–5. The analysis of processes has also led to the formulation of recommendations for improvement, which are included in Chapter 4 of this report.

3 Output assessment of the third EQLS

Description of the outputs

The assessment of output quality is based on the following outputs of the third EQLS:

- the questionnaire (English version), which has been used for a screening exercise to analyse its coherence with other reference surveys;
- the data file containing individual observations and sampling information, which has been used to calculate sampling errors and non-response rates;
- the following Eurofound reports: *Third European Quality of Life Survey – Technical report* (prepared by the contractor); *Quality of life in Europe: Impacts of the crisis* (third EQLS overview report by Eurofound); the non-response analysis report (version December 2012).

In order to carry out useful comparisons with other relevant European surveys such as the European Union Statistics on Income and Living Conditions (EU-SILC) or the European Union Labour Force Survey (EU LFS), the following sources have been used:

- EU-SILC quality reports for the 16 analysed countries;
- datasets from Eurostat for the EU LFS and EU-SILC to obtain aggregated data on household size, education, work status and work time;
- methodological reports for making comparisons between surveys.

Methodology for assessing the output

Methodological references

The quality dimensions of the output considered in this report are relevance and completeness, accuracy of results, timeliness and punctuality, accessibility and clarity, and coherence and comparability with other existing statistics.

These dimensions are defined according to the main methodological reference for statistical quality reports in the European context, the *ESS Standard for quality reports* (Eurostat, 2009).

- **Relevance and completeness** refers to whether the outputs meet current and potential users' needs, and to the extent to which all statistics that are needed are available.
- The **accuracy** of statistical outputs in the general statistical sense is the degree of closeness of estimates to the true values.
- The **timeliness** of statistical outputs is the length of time between the event or phenomenon they describe and their availability. **Punctuality** is the time lag between the release date of data and the target date on which it was scheduled for release as announced in an official release calendar.
- **Accessibility and clarity** concerns the extent to which outputs are presented in a clear and understandable form, disseminated in a suitable and convenient manner, made available and accessible on an impartial basis, and accompanied by supporting metadata and guidance.
- The **coherence** of two or more statistical outputs refers to the degree to which the statistical processes by which they were generated used the same concepts – classifications, definitions and target populations – and harmonised methods. Coherent statistical outputs have the potential to be validly combined and used jointly. Examples of joint use are where the statistical outputs refer to the same population, reference period and region but comprise different sets of data items (say, employment data and production data) or where they comprise the same data items (say, employment data) but for different reference periods, regions, or other domains. **Comparability** is a special case of coherence and refers to the latter example, where the statistical outputs refer to the same data items and the aim of combining them is to make comparisons over time, or across regions or other domains.

Methods for compilation of quality indicators

The methodology that has been applied to assess the quality in terms of coherence and accuracy is described below.

Analysis of relevance and completeness

To assess the relevance of the EQLS, it is important to compare the topics covered by the EQLS with those covered by other EU surveys. This analysis had already been carried out by Eurofound by comparing with other well-established social surveys and therefore little can be added here.

Analysis of accuracy

To assess the accuracy of the EQLS data, the following actions have been carried out:

- analysis of sampling errors;
- analysis of non-response.

The calculation of **sampling errors** as the principal indicator of a survey's accuracy is a process that requires much more time for analysis and computation than generating estimates of totals and proportions, which, in general, are weighted sums of the sample units. Moreover, when the samples are complex (multistage, unequal probabilities and so on), not all the information necessary for the exact calculation of the error is always available in the original microdata files, namely the variable specifying the clustering and stratification. Thus, approximations that do not distort the results significantly must be used instead.

Due to the reasons given above, the practice of statistical agencies or private pollsters is not to calculate all possible sampling errors of a survey. Instead, they usually proceed to calculate the sampling errors of a certain number of 'representative' variables that cover the objectives of the survey and, consequently, convey a good idea about the rest. In this case, 22 questions out of 68 have been chosen (see Annex 4), which cover all topics addressed by the third EQLS, giving preference (where possible) to questions that have appeared in earlier waves or can be found in other statistics on population and living conditions included in the European Statistical Programme, mainly EU-SILC. None of the sociodemographic segmentation questions have been included in the computation of the sampling errors.

For each of the 34 countries included in the microdata files, **standard errors** and **coefficients of variation** have been computed as indicators of sampling error, for the total population and by sex of the respondent. These calculations make it possible to perform a minimum assessment of the capacity of the third EQLS to break results down by this basic demographic variable. The variances have been calculated by means of the usual unbiased estimates based on the sampling design that can be found, for example, in Lehtonen and Pahkinen (2004) or Lohr (1999). The software used was the statistical package R.⁴

As an indicator of the effectiveness of the sample design, in addition to standard errors, the design effect has been computed, taking as a basis a simple random sampling with replacement design. The design effect is a measure of the precision in comparison to simple random sampling, and is also used to derive the effective sample size. The design effect has been computed as the ratio between the variance of the complex sampling and the variance of a simple random sampling design with replacement for the same sample size of final units.

$$deff = \frac{V_c}{V_{srs}}$$

where V_c is the variance of the complex sampling and V_{srs} is the variance that would have been obtained by simple random sampling with replacement for the same sample size of final units.

The analysis of **non-response**, which usually forms part of the analysis of accuracy by calculating the non-sampling error due to non-response, has been carried out by computing the item non-response rate from the microdata. Specifically, the percentage of non-response for every item of the questionnaire in every country has been computed,⁵ and the questions with the highest non-response level exhaustively

⁴ <http://www.r-project.org>

⁵ Item non-response aggregates the codes 'Refusal' and 'Don't know'.

characterised. Unit non-response has been analysed and compared for the EQLS, EU-SILC and ESocS in the section ‘Non-response analysis’.

Analysis of timeliness and punctuality

This assessment has been carried out by comparing the foreseen and actual calendars for dissemination.

Analysis of accessibility and clarity

This assessment has been implemented by accessing Eurofound’s web site and the UK Data Archive.

Analysis of coherence and comparability

Coherence means that outputs are mutually consistent and can be used in combination; comparability is an aspect of coherence and means that outputs referring to the same data items are mutually consistent and can be used for comparisons across time, region or any other relevant domain.

To assess the coherence of the third EQLS with other statistical sources, a preliminary screening of questionnaires with respect to the core social variables has been carried out.⁶ The objective of the screening is to identify how the core social variables are requested in each survey, and which response options are given. This is a necessary step to complete before checking the coherence of statistical results by comparing the distribution of responses.

Results of the assessment of output quality

Relevance and completeness

Relevance refers to whether the outputs meet current and potential users’ needs.⁷ The following aspects will be analysed in order to assess the relevance of the EQLS.

The EQLS in the broader background framework of European social statistics: value added with respect to the other existing surveys

- The EQLS has an exclusive focus on the European environment, which is currently going through profound economic crisis. This economic climate has caused major social challenges that have to be addressed carefully. Therefore, the data and information collected from the EQLS provides useful insights into the experiences and preferences of European citizens.
- The EQLS examines subjective well-being, something that no other European survey provides. The OECD has started to measure well-being and progress and the ESocS provides some information. However, these sources do not cover such an extensive list of indicators as the EQLS, and they do not provide this information for all EU countries, making it impossible to perform comparisons.
- Comparability with other European surveys such as EU-SILC and the EU LFS is only possible with certain objective variables such as working hours, education, work status and household size. However, EU-SILC and the EU LFS do not contain extensive information on quality of life.
- The EQLS is a unique survey that combines objective and subjective variables to capture the big picture of well-being and quality of life among citizens across European countries.

⁶ The ESS considered the systematic introduction of a number of variables in all social surveys to be able to produce comparable statistics across countries and across domains. The selection of such variables was done based on relevance of the information collected, simplicity and use of existing tested and internationally harmonised definitions, feasibility and ease of implementation in existing surveys so as not to increase the burden on respondents. The final list of core social variables is available in the *Task Force on Core Social Variables – Final report* (2007 edition). See http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-006/EN/KS-RA-07-006-EN.PDF

⁷ It has not been possible to assess this dimension without results of a user feedback survey.

User assessment and feedback

- Eurofound aims to retrieve feedback from users through a short online survey. It is fundamental for this function to be working in order to gather and evaluate the feedback coming from the user. To achieve more information on user activity and satisfaction, Eurofound should consider analysing the number of downloads of EQLS documents and reports, the number of visits made to the EQLS pages of the Eurofound web site and the number of data requests received by the UK Data Archive.

Completeness is defined as ‘the extent to which all statistics that are needed are available. It is usually described as a measure of the amount of available data from a statistical system compared to the amount that was expected to be obtained’ (Ehling and Körner, 2007). The third EQLS covers all the relevant topics on quality of life. However, completeness can also be assessed by evaluating whether the themes that are covered in the survey satisfy users’ needs.

Accuracy and reliability

Assessment of accuracy was made by analysing the typology of errors that may occur in a statistical survey: sampling errors and non-sampling errors. Both of these types of errors are subject to **variability** (the statistics changing between different methodologies of a survey due to random effects) and **bias** (the average of the estimates from each implementation not being equal to the true value due to systematic effects). In this section, non-response analysis and analysis of sampling errors will be carried out.

Non-response analysis includes:

- **unit non-response** analysis;
- **item non-response**: valid responses for each questionnaire item (size of unweighted sample).

Analysis of sampling errors examines:

- **standard errors and coefficients of variation**
- **design effects** of main variables.⁸

Non-response analysis

Unit non-response can be defined as the failure to obtain information from an eligible household. In the EQLS, non-response is classified as being due to: (1) the inability to make contact with the selected sample unit (no contact); (2) unwillingness of the sampled unit to participate in the survey (refusal); or (3) being unable to interview the sample unit. This information is collected in the contact sheets of the EQLS and processed by the consultant.

To set a benchmark framework, the unit non-response of the third EQLS has been compared with those of the second EQLS and other two key social surveys:

- EU-SILC 2010;⁹
- ESocS 2010.¹⁰

EU-SILC sampling is designed as a rotating panel (except for Luxembourg, which uses a pure panel). To guarantee comparability, the non-response rates of the third EQLS are compared with those of the new sub-sample of EU-SILC instead of the non-response rates for the whole EU-SILC sample.

⁸ *ESS Standard for Quality Reports* (Eurostat, 2009) suggests the use of standard errors, coefficients of variation and confidence intervals as indicators for accuracy. The design effect is a method used to measure the efficiency of the sample design by comparing the standard error of the design implemented with a simple random sample design.

⁹ See the national quality reports published by NSIs, available at http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/quality/national_quality_reports, and the comparative quality reports published by Eurostat, available at http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/quality/eu_quality_reports.

¹⁰ See the Report on quality assessment of contact file in Round 5 (July 2012) and *Field procedures in the European Social Survey Round 6: Enhancing response rates*, available at http://www.europeansocialsurvey.org/index.php?option=com_docman&task=cat_view&gid=188&Itemid=80

A. Evolution of non-response in the EQLS

In this section, a comparison of the response rates, refusal rates and non-contact rates is carried out between the second EQLS (2007) and third EQLS (2011), giving a clear picture of the evolution of these indicators from one wave to another.

Table 6: Comparison of response rates in the second and third EQLS

Country	Third EQLS			Second EQLS		
	Response rate %	Refusals %	Non-contacts %	Response rate %	Refusals %	Non-contacts %
AT	49.4	23.8	22.5	56.2	28.5	15.3
BE	46.8	35.0	10.5	49.2	36.1	14.6
BG	59.4	19.0	17.7	81.9	15.7	0.4
CY	78.3	15.9	2.8	58.6	37.6	3.8
CZ	44.3	39.9	10.5	55.4	30.9	13.6
DE	40.6	46.9	10.2	47.3	18.7	34.0
DK	27.5	42.1	8.0	27.8	36.3	36.0
EE	53.2	18.8	24.1	48.0	29.2	22.8
EL	41.3	49.9	0.2	32.7	63.5	3.8
ES	30.9	36.5	15.4	34.9	43.0	22.1
FI	38.6	35.9	20.8	32.9	29.2	37.8
FR	29.8	34.4	27.9	33.6	50.6	15.8
HU	40.0	52.2	0.2	64.9	34.8	0.4
IE	49.4	14.3	20.3	72.2	15.2	11.7
IT	38.9	48.0	9.7	41.0	53.6	5.4
LT	44.0	28.2	23.2	46.3	44.0	9.7
LU	14.0	50.6	24.8	30.4	39.2	30.4
LV	39.6	15.8	20.1	48.1	38.4	13.5
MT	63.5	17.0	9.1	62.5	22.3	15.3
NL	29.4	42.6	17.1	29.3	50.4	20.3
PL	61.0	26.3	11.2	41.1	57.1	1.8
PT	33.6	20.7	31.7	73.5	20.1	6.4
RO	57.2	16.7	21.2	78.5	10.8	10.8
SE	46.0	43.9	9.5	-	-	-
SI	47.6	36.7	12.4	51.6	43.3	5.1
SK	61.2	24.0	13.6	72.7	21.5	5.9
UK	25.1	36.7	29.2	26.2	52.0	21.9

Note: Rates are computed as percentage of the gross sample.

As in other social surveys in the EU, there is a general trend of declining response rates in the EQLS. Additionally, the variability of non-response and refusal rates is large in the third EQLS. Response rates vary among countries between 14.0% (Luxembourg) and 78.3% (Cyprus). The same occurs with the refusal rates (ranging from 14.0% in Ireland and 52.2% in Hungary).

**Table 7: Differences in response, refusal and no-contact rates
(third EQLS rate - second EQLS rate)**

Country	Response rate %	Country	Refusal rate %	Country	No-contact rate %
PL	19.9	PL	-30.8	DK	-28.0
CY	19.7	LV	-22.6	DE	-23.8
EL	8.6	CY	-21.7	FI	-17.0
FI	5.7	FR	-16.2	ES	-6.7
EE	5.2	LT	-15.8	MT	-6.2
MT	1.0	UK	-15.3	LU	-5.6
NL	0.1	EL	-13.6	BE	-4.1
DK	-0.3	EE	-10.4	EL	-3.6
UK	-1.1	NL	-7.8	NL	-3.2
IT	-2.1	SI	-6.6	CZ	-3.1
LT	-2.3	ES	-6.5	CY	-1.0
BE	-2.4	IT	-5.6	HU	-0.2
FR	-3.8	MT	-5.3	EE	1.3
ES	-4.0	AT	-4.7	IT	4.3
SI	-4.0	BE	-1.1	LV	6.6
DE	-6.7	IE	-0.9	AT	7.2
AT	-6.8	PT	0.6	SI	7.3
LV	-8.5	SK	2.5	UK	7.3
CZ	-11.1	BG	3.3	SK	7.7
SK	-11.5	DK	5.8	IE	8.6
LU	-16.4	RO	5.9	PL	9.4
RO	-21.3	FI	6.7	RO	10.4
BG	-22.5	CZ	9.0	FR	12.1
IE	-22.8	LU	11.4	LT	13.5
HU	-24.9	HU	17.4	BG	17.3
PT	-39.9	DE	28.2	PT	25.3

Note: Rates are computed as percentage of the gross sample.

As pointed out above, there is a general trend of declining response rates in most European countries: in only seven Member States have response rates increased from the second to the third waves (Poland, Cyprus, Greece, Finland, Estonia, Malta and the Netherlands). This decline is greatest in Portugal, Hungary, Ireland, Bulgaria and Romania.

It must be highlighted that 16 Member States have been able to decrease their refusal rates. This may be a consequence of the communication and fieldwork strategies implemented to reduce refusals and convert them into valid interviews. The non-contact rate has been improved in 12 Member States.

The non-response analysis report prepared by Eurofound and the contractor shows that the same measures to reduce non-response and refusal may have different results in different countries. For instance, when four or more contact attempts are made, the rate of refusal is higher than the first three

contact attempts in all countries. The opposite is true for Austria, Germany, Denmark, Spain, the Netherlands, Sweden and the UK, where a lower refusal rate was experienced when four or more contact attempts were made. Strategies to fight non-response should be proposed country by country.

B. Comparison with EU-SILC 2010

Non-response categories defined in the third EQLS and EU-SILC and the formulas to compute the corresponding non-response rates are presented in Annexes 5 and 6. To be comparable with EU-SILC, the non-response rates for the EQLS are computed as a percentage of the net sample in this subsection.

Comparing response rates in EU-SILC 2010 and the third EQLS

Table 8: Comparing response rates in EU-SILC 2010 and third EQLS

Country	EU-SILC 2010 %	Third EQLS %	Difference (EU-SILC - EQLS)
AT	61.6	51.4	10.2
BE	44.2	49.9	-5.8
BG	75.6	61.4	14.2
CY	86.0	80.7	5.2
CZ	65.7	45.2	20.5
DE	87.1	41.4	45.7
DK	63.4	35.3	28.1
EE	74.6	54.9	19.7
EL	69.4	45.1	24.3
ES	73.8	37.1	36.6
FI	70.1	39.6	30.5
FR	70.9	31.7	39.2
HU	88.1	42.4	45.7
IE	82.7	49.9	32.8
IT	80.4	40.2	40.2
LT	74.6	45.2	29.4
LU	29.8	15.5	14.3
LV	69.0	51.9	17.2
MT	73.3	70.7	2.6
NL	78.8	32.4	46.4
PL	70.2	61.6	8.5
PT	90.7	38.2	52.5
RO	-	59.7	-
SI	69.2	48.8	20.4
SK	94.9	61.7	33.1
UK	60.1	26.5	33.6

Note: Sweden is excluded from the analysis as all interviews were completed using telephone recruitment.

Response rates are in general higher for EU-SILC 2010, specifically in Germany, Hungary, the Netherlands and Portugal.

Figure 2: Difference in response rates (EU-SILC 2010 - third EQLS)



Belgium (a country with low response rates in various surveys) is the only country with higher response rate for the EQLS than for EU-SILC. The difference in non-response rates for Malta, Cyprus, Poland and Austria between both surveys is less than 10%.

Comparing refusal rates in EU-SILC 2010 and third EQLS

The refusal rates for both surveys at country level are presented in Table 9. In all cases, refusals account for most of the non-response (from 40% to 87% in EU-SILC, and from 43% to 85% in EQLS).

Table 9: Comparing refusal rates in EU-SILC 2010 and the third EQLS

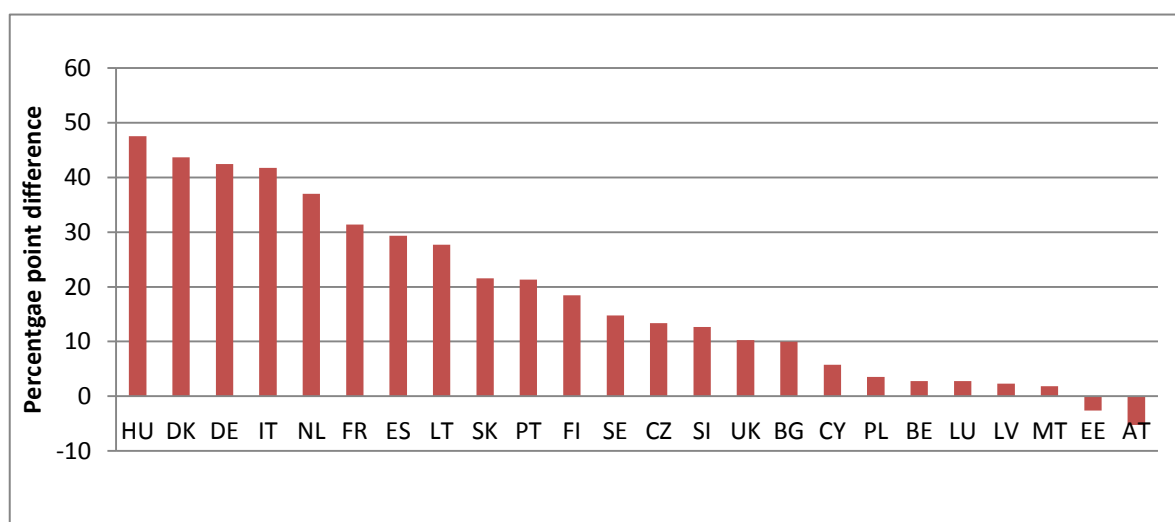
Country	EU-SILC 2010 %	Third EQLS %	Difference (EQLS - EU-SILC)
AT	30.02	24.75	-5.3
BE	34.58	37.34	2.8
BG	9.70	19.66	10.0
CY	10.65	16.37	5.7
CZ	27.33	40.67	13.3
DE	5.41	47.88	42.5
DK	10.33	54.00	43.7
EE	21.97	19.35	-2.6
EL	-	54.52	-
ES	14.58	43.94	29.4
FI	18.41	36.84	18.4
FR	5.27	36.64	31.4
HU	7.71	55.28	47.6
IE	-	16.28	-
IT	7.80	49.57	41.8
LT	1.22	28.91	27.7
LU	52.98	55.73	2.8

LV	18.42	20.71	2.3
MT	17.13	18.93	1.8
NL	9.96	46.95	37.0
PL	23.12	26.62	3.5
PT	2.27	23.60	21.3
RO	-	17.40	-
SE	29.36	44.11	14.8
SI	24.96	37.63	12.7
SK	2.71	24.26	21.6
UK	28.55	38.81	10.3

Note: Refusal rate for the new subsample (2010) – no available data for the new subsample in national quality reports, EU-SILC 2010

The refusal rate is higher in the EQLS than in EU-SILC except for Austria and Estonia, where the refusal rate is slightly lower. The refusal rate was high in Belgium and Luxembourg for both surveys. In the EQLS, Cyprus, Ireland and Romania have the lowest refusal rates of the EU27 Member States.

Figure 3: Difference in refusal rates (third EQLS – EU-SILC 2010)



Hungary, Denmark and Germany show the highest differences in refusal rates.¹¹

Comparing ‘deadwood addresses’ (EQLS) and ‘addresses non-contacted’ (EU-SILC)

The EQLS and EU-SILC name and define addresses that could not be reached somewhat differently (see Annex 5).

- The EQLS uses the term **deadwood addresses** for vacant properties, demolished or not-found properties, non-residential properties and dangerous areas.
- EU-SILC uses the term **addresses non-contacted** for addresses that cannot be located, addresses that cannot be accessed or addresses that do not exist.

¹¹ The technical report of the third EQLS (GfK EU3C, 2011) states that Hungary’s fieldwork progressed very well at the beginning but slowed down towards the end. Hungary also encountered some difficulties due to no internet access for some interviewers for a few days and a short fieldwork period (1 October 2011 to 22 December 2011). Difficulties in the fieldwork were also reported for Denmark: time-consuming face-to-face contact procedure; poor quality of addresses; interview duration; and high refusal rate (difficult face-to-face survey country).

However, these two categories can be compared as they both refer to the number of contacts that could not be reached due to the address and type of building.

In addition, the EQLS distinguishes between ‘deadwood’ and non-contact. The former refers to the type of building or address and the latter refers to the contact procedure. Non-contact should not be confused with ‘addresses non-contacted’ in EU-SILC. ‘Non-contact’ in EQLS is the equivalent of the category ‘Entire household temporary away’ in EU-SILC.

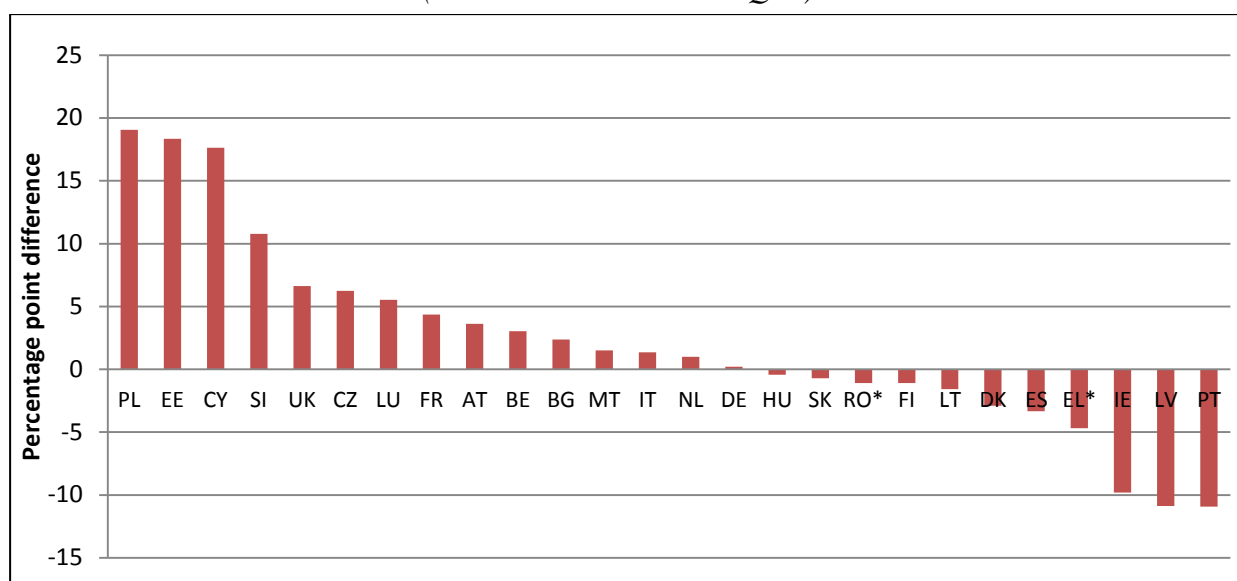
Table 10: Comparing deadwood addresses (EQLS) and addresses non-contacted (EU-SILC)

Country	Deadwood addresses %	Addresses non-contacted %	Difference (EU-SILC - EQLS)
AT	1.5	5.1	3.6
BE	2.4	5.4	3.0
BG	2.5	4.9	2.4
CY	0.0	17.6	17.6
CZ	1.1	7.4	6.3
DE	0.9	1.1	0.2
DK	20.9	18.0	-2.9
EE	1.6	19.9	18.3
EL*	6.0	1.3	-4.7
ES	16.1	12.8	-3.3
FI	1.1	0	-1.1
FR	2.9	7.3	4.4
HU	2.7	2.3	-0.4
IE	9.8	-	-
IT	0.9	2.2	1.3
LT	2.4	0.8	-1.6
LU	2.2	7.7	5.5
LV	22.3	11.4	-10.9
MT	5.0	6.5	1.5
NL	5.6	6.6	1
PL	0.5	19.6	19.1
PT	11.4	0.5	-10.9
RO*	3.2	2.11	-1.1
SI	1.3	12.1	10.8
SK	0.7	0.0	-0.7
UK	3.0	9.6	6.6

*Note: * Total rate used as there is no data available on the new subsample.*

The third EQLS did not encounter a high rate of addresses non-contacted, possibly as a consequence of the good practice of implementing random routes in two separate phases (enumeration and interviewing). However, the proportion of deadwood addresses was unusually high in Latvia (22.3%), Denmark (20.9%) and Spain (16.1%).

Figure 4: Difference between deadwood addresses and addresses non-contacted
(EU-SILC 2010 – third EQLS)



Note: * Total rate used as there is no data available on the new subsample.

B. Comparison with ESocS 2010

The comparison between the third EQLS and ESocS 2010 has been carried out for 21 Member States as ESocS does not include all EU27 countries. The detailed calculation formula for the response rate is given in Annex 6.

Comparing response rates in the third EQLS and ESocS 2010

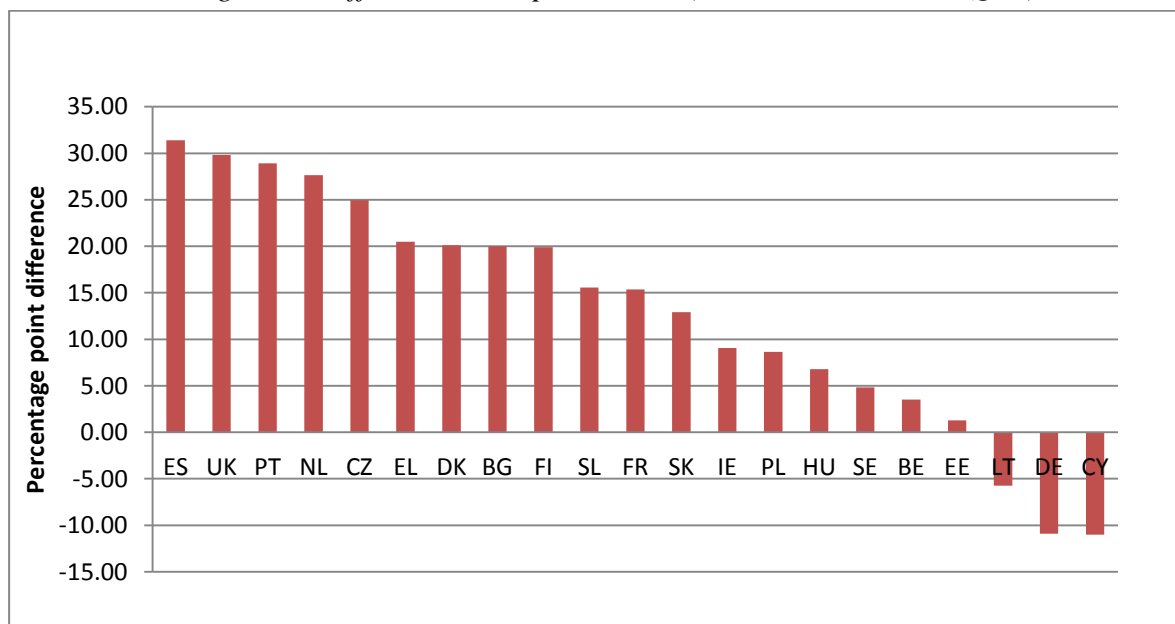
Table 11: Comparing response rates in third EQLS and ESocS 2010

Country	Third EQLS %	ESocS 2010 %	Difference (ESocS - EQLS)
BE	49.9	53.4	3.5
BG	61.4	81.4	20.0
CY	80.7	69.7	-11.0
CZ	45.2	70.2	25.0
DE	41.4	30.5	-10.9
DK	35.3	55.4	20.1
EE	54.9	56.2	1.3
EL	45.1	65.6	20.5
ES	37.1	68.5	31.4
FI	39.6	59.5	19.9
FR	31.7	47.1	15.4
HU	42.4	49.2	6.8
IE	56.1	65.2	9.1
LT	45.2	39.4	-5.8
NL	32.4	60.0	27.7
PL	61.6	70.3	8.6

PT	38.2	67.1	28.9
SE	46.2	51.0	4.8
SK	61.7	74.7	12.9
SL	48.8	64.4	15.6
UK	26.5	56.3	29.8

ESocS 2010 exhibits in general higher response rates than the third EQLS, with the largest differences for Spain, the UK and Portugal. However, response rates in Cyprus, Germany and Lithuania are higher in the third EQLS.

Figure 5: Difference in response rates (ESocS 2010 - third EQLS)



Cyprus, Germany and Lithuania have higher response rates in the third EQLS than in ESocS.

Comparing refusal rates in the third EQLS and ESocS 2010

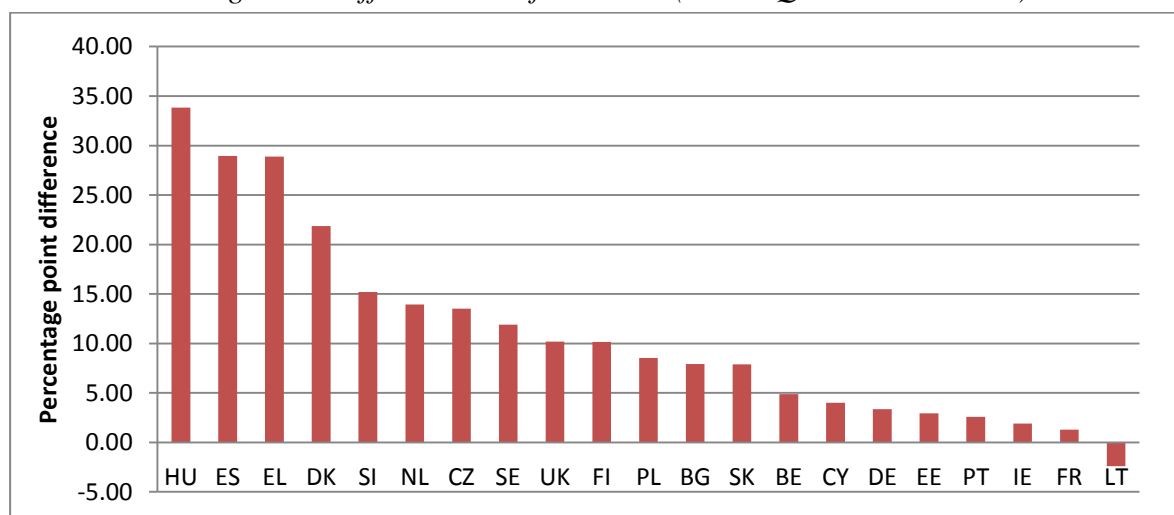
Refusal rates are generally higher for the third EQLS. In seven countries (Belgium, Cyprus, Germany, Estonia, Portugal, Ireland and France) the difference in response rates is lower than 5%. Hungary, Spain and Greece show the highest differences. Lithuania is the only country that has a lower refusal rate in the third EQLS.

Table 12: Comparing refusal rates in the third EQLS and ESocS 2010

Country	Third EQLS %	ESocS 2010 %	Difference (EQLS - ESocS)
BE	37.3	32.5	4.9
BG	19.7	11.7	7.9
CY	16.4	12.4	4.0
CZ	40.7	27.2	13.5
DE	47.9	44.5	3.4
DK	54.0	32.1	21.9
EE	19.4	16.4	2.9
EL	54.5	25.6	28.9

ES	43.9	15.0	29.0
FI	36.8	26.7	10.2
FR	36.6	35.3	1.3
HU	55.3	21.4	33.8
IE	16.3	14.4	1.9
LT	28.9	31.3	-2.4
NL	47.0	33.0	13.9
PL	26.6	18.1	8.5
PT	23.6	21.0	2.6
SE	44.1	32.2	11.9
SI	37.6	22.4	15.2
SK	24.3	16.4	7.9
UK	38.8	28.6	10.2

Figure 6: Difference in refusal rates (third EQLS – ESocS 2010)



Comparing non-contacts in third EQLS and ESocS 2010

There is no general trend between the deadwood addresses in the EQLS and the non-contacts in ESocS. Denmark and Spain are the countries with the highest percentages of deadwood addresses in the third EQLS, while Lithuania and Ireland show the highest non-contact rates in ESocS.

Table 13: Comparing deadwood addresses (third EQLS) and non-contacts (ESocS 2010)

Country	Deadwood addresses %	Non-contact rate %	Difference (ESocS - EQLS)
BE	2.4	2.4	0.0
BG	2.5	7.8	5.3
CY	0.0	2.9	2.9
CZ	1.1	3.9	2.8

DK	20.9	1.9	-19.0
EE	1.6	4.4	2.8
FI	1.1	1.3	0.2
FR	2.9	8.2	5.3
DE	0.9	5.8	4.9
EL	6.0	2.2	-3.8
HU	2.7	1.9	-0.8
IE	9.8	12.2	2.4
LT	2.4	14.8	12.4
NL	5.6	4.4	-1.2
PL	0.5	6.4	5.9
PT	11.4	9.0	-2.4
SK	0.7	0.6	-0.1
SI	1.3	3.2	1.9
ES	16.1	4.0	-12.1
UK	3.0	7.5	4.5

Item non-response analysis

The second source of non-response is **item non-response**, that is missing answers to some questions. In general, the third EQLS does not show significant problems of item non-response. The following points, along with Tables 14 and 15, summarise the item non-response analysis.

At an aggregated EU27 level, only the question Q53 (categories d, e and f)¹² and question Q39 (category d)¹³ present high rates of item non-response (higher than 25%).

None of these items is dependent on any filters, and so their high non-response rates are not due to filtering problems in prior questions. In addition to this, they do not offer the option to select 'Not applicable', so the high non-response rate cannot be attributed to a fault in the coding of this response.

When considering all 34 countries of the third EQLS, the same set of items as for the EU27 countries present high non-response rates (higher than 25%).

Table 14: Aggregated item non-response rates (%)

	EU27 + Non-EU27	EU27	Non-EU27
Q53e	31.6	32.7	26.8
Q53f	31.1	32.2	26.2
Q53d	29.2	30.7	22.3
Q39d	28.6	28.3	30.0
Q53g	13.7	13.5	14.3
Q25g	12.2	11.7	14.3
Q10	11.2	10.1	16.5
Q37c	11.0	9.3	17.2
Q35c	10.6	11.8	5.5
Q55d	10.2	10.3	9.7
Q62	10.2	10.2	10.4
Q56d	9.3	8.8	11.4
Q27b	8.1	6.9	13.4
Q37a	7.9	6.8	12.2
Q27c	7.0	5.7	12.4
Q7b	6.9	5.4	10.6
Q27a	6.9	5.5	12.9
Q8	6.8	5.4	13.1
Q39c	5.8	4.2	12.5
Q26	5.4	3.2	15.0

¹² 'In general, how would you rate the quality of each of the following public services in country? Please tell me on a scale of 1 to 10, where 1 means very poor quality and 10 means very high quality.' Response categories: d. Child care services; e. Long term care services; f. Social/municipal housing.

¹³ 'Could you tell me if you spend as much time as you would like to on voluntary work, or if you wish you could spend 'less time' or 'more time' in that activity?'

Table 15: Percentage item non-response by country

	Q7b	Q8	Q10	Q25g	Q26	Q27a	Q27b	Q27c	Q37c	Q39c	Q39d	Q53d	Q53e	Q53f	Q53g	Q56d	Q66
Belgium												34.5		25.8			
Bulgaria				30.6		27.0	29.2	28.6			43.4		28.1	50.2		28.2	
Cyprus												32.3	47.9	32.2			
Czech Republic											32.9						
Germany											36.0		30.0	33.5			
Estonia											37.5	46.6	51.4	52.3			
Greece	25.0											26.5	32.8	35.7			
Spain											32.3	34.6	33.2	33.7			
France												31.9					
Hungary											36.4	37.3	41.7	37.0			
Ireland												42.6	35.8	32.0	26.7		
Italy											25.5						
Lithuania											37.0	42.0	47.4	33.9			
Luxembourg												44.2	45.6	57.9	28.0		
Latvia				27.2							49.2	40.0	55.2	42.2			
Malta											59.3	38.1	38.3	47.9	30.8		26.9
Netherlands												48.7					
Poland									28.9		44.2		34.7	31.5			
Portugal											32.6	26.1	28.6	33.6			
Romania				27.9			26.9				38.5	35.3	42.5	41.3	38.2		
Sweden												27.6	27.2	25.8			
Slovenia											46.5			29.7			
Slovakia											27.5		30.1	29.0			
UK												59.8	44.9	39.4	26.6		
Turkey					34.6						31.3	32.0	36.2				
Croatia																	
Former Yugoslav Republic of Macedonia											36.3		34.2	29.5			
Kosovo		31.4	32.2						29.7	29.7	36.4						
Serbia													34.3	36.0			
Montenegro			28.2								53.3	31.3	35.1	38.1			
Iceland														33.0			

Analysis of sampling errors

The analysis of accuracy with regard to sampling error provides information about standard error, coefficient of variation and design effects.¹⁴

Standard error

For each country, an estimate of the standard error is given in Annex 8 for each response category. Standard errors have been calculated by means of the usual unbiased estimates based on the sampling design that can be found, for example, in Lehtonen and Pahkinen (2004) or Lohr (1999). The third EQLS estimates are accurate enough for a social survey, since standard errors presented in Annex 8 are in general lower than 3%, specifically in the EU27 countries. The larger standard errors are concentrated in just four questions:

- Q11, Q12a, Q12b, Q12c (i.e. those relating to work-life balance);
- Q25 (tensions between social groups);
- Q50 (problems in neighbourhood), especially for Bulgaria, Greece and Slovakia.

Coefficient of variation

In order to compare sampling errors with the values of estimates, a relative precision indicator, namely the coefficient of variation (CV), has been calculated.

Averaging all questions for each country, the coefficients of variation range between 5.7% for France to 12.4% for Denmark.¹⁵ There is a clear relationship between sample size and the average coefficient of variation, with smaller values for France, Germany, Poland and the UK (larger samples) and higher values for those with 1,000 individuals interviewed (see Figure 7 below).

The precision is lower for non-EU countries, in particular for Kosovo and Montenegro.

The achieved precision is not correlated with the use of enumerated random route or random probability sampling. This fact may be a consequence of the methodology used to implement the random routes, with completely separate phases of enumeration, where the addresses of the households are selected, and interview.

Some questions present lower accuracy in terms of coefficient of variation:

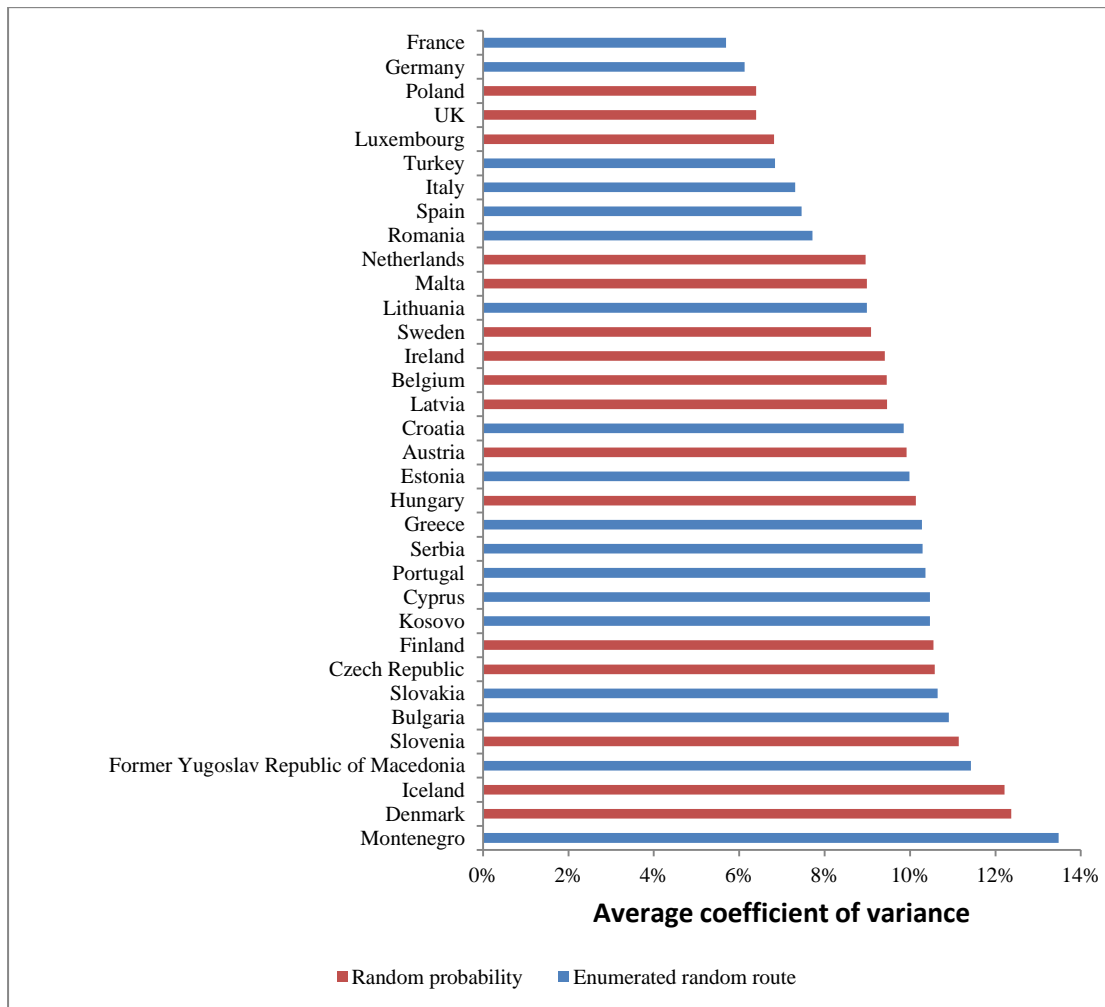
- Q12c (range 8.9%–20.9%)
- Q19d: Slovenia, Ireland and Cyprus around 21%; Austria, the Netherlands, the Czech Republic and Denmark at 26.9%–50.0%
- Q19e: Cyprus, Austria and Denmark
- Q21a: Bulgaria, the Czech Republic, Sweden and Denmark
- Q21d: Bulgaria
- Q33a: Malta and Cyprus
- Q33d: Slovenia

¹⁴ As an output of the process of calculating the standard errors, an Excel file and a rich text format (RTF) file that contain tables of errors and design effects have been generated for each country, for the total and by sex for each of the questions selected. In the RTF files, tables are identified by the title that matches the code (Q19c, for example) and wording of the question. In the Excel files, there is a sheet for each question and the label of the sheet matches the question code. Additionally, an Excel file and an RTF file have been created with one table per question that compares the estimates across countries; the structure of these files is the same for each country.

¹⁵ The average coefficient of variation does not have any statistical meaning except for ranking the Member States according to the general accuracy of their national samples. It is used to report a general measure of accuracy (for example, when considering several variables or a variable and its breakdowns).

- Q37: Denmark and Sweden
- Q42: Malta and Cyprus
- Q45a: Slovenia, the Czech Republic, Finland and Denmark
- Q50b: Ireland
- Q50c: Finland, the Netherlands and Denmark

Figure 7: Range of coefficient of variation (all variables) by country and survey design



Design effects

Design effects, which measure the efficiency of the survey design compared to simple random sampling design, have been evaluated.

The range of design effects shows a difference between random probability designs (more efficient) and random route designs (less efficient) (see Annex 7).

The sample design is very efficient in Luxembourg, with design effects smaller than 1 (in other words, more efficient than simple random sampling). In Malta, the Netherlands and Poland, the design also provides very small design effects. All cases correspond to random probability designs.

Design effects are in general smaller for the EU27 countries. However, some blocks of questions show design effects that are higher than 2 in some countries:¹⁶

- Q19d, Q19e, Q19f (problems with accommodation) for Estonia, Lithuania, Austria, Latvia and the UK;
- Q25 (tension between social groups), Q27 (statements about immigrants) and Q28 (trust in institutions) for countries with random route design, as well as for the Czech Republic and Hungary. Q28 is especially inaccurate for the Czech Republic.
- Q40 (satisfaction level with various dimensions of life) for countries with random route design and Hungary.
- Q50 (problems in neighbourhood) and Q53 (quality of public services) for countries with random route design and Hungary.

Timeliness and punctuality

This refers to the dissemination of outputs in a timely and punctual manner.

The timeliness of statistical outputs is the length of time between the event or phenomenon they describe and their availability. For official statistics, it is measured in calendar days, and for its calculation, the release calendar is considered. Punctuality is the time lag between the release date of data and the target date on which it was scheduled for release as announced in an official release calendar. For official statistics, the indicator ‘punctuality’ quantifies the difference (time lag) between actual and planned dates, and it is measured in calendar days.

The dissemination calendar of the third EQLS is provided in Eurofound’s Annual work programme 2012. The indicative dates envisaged are compared with the actual dates of delivery in Table 16.

Table 16: Indicative dissemination dates

Activity	Estimated publication date	Effective publication/ completion date
Completion of fieldwork in the EU27	December 2011	February 2012
Completion of fieldwork in pre-accession countries	Summer 2012	August 2012
Quality of life in Europe: First findings from the third EQLS	End 2012	November 2012
<i>Quality of life in Europe: Impacts of the crisis</i>	End 2012	November 2012
Upgrade and update of Survey Mapping Tool (SMT)	First semester 2013	November 2012
<i>Trends in quality of life over 2003, 2007 and 2011</i>	Autumn 2013	Not applicable
<i>Subjective well-being and quality of life</i>	Autumn 2013	Not applicable
<i>Quality of society and public services</i>	Autumn 2013	Not applicable
<i>Social inequalities in quality of life</i>	Autumn 2013	Not applicable
External data quality assessment report	Autumn 2013	Final version from consultant envisaged for January 2013

¹⁶ In general, social surveys have design effects of around 2. The Practical Exemplars and Survey Analysis (PEAS) web site (<http://www.restore.ac.uk/PEAS>) mentions that ‘in general, for a well-designed study, the design effect usually ranges from 1 to 3’.

The release calendar published by Eurofound is only indicative and does not permit the calculation of an accurate punctuality indicator. However, it should be noted that the envisaged dates have generally been met, which demonstrates the smooth development of survey process phases.

Accessibility and clarity

This concerns assessing the extent to which outputs are presented in a clear and understandable form, disseminated in a suitable and convenient manner, made available and accessible on an impartial basis, and accompanied by supporting metadata and guidance.

Unlike Eurostat, Eurofound does not publish the data in the form of aggregated data sets that can be directly downloaded from the web site. Eurofound publishes research reports, survey results on the Survey Mapping tool (on the web site), and makes the anonymised microdata set freely available.

The access to microdata through the UK Data Archive was user-friendly and fast. Even though a request had to be sent to obtain the microdata for 2007, this process was relatively quick and was completed in less than two days. If the same process is compared to EU-SILC, it is immediately evident that the time span is much lower for the EQLS (between two and five working days) than EU-SILC (10 weeks).¹⁷ Moreover, the fact that a contract has to be signed with Eurostat for EU-SILC microdata makes the process more complex, time consuming and laborious.

The channel through which the data is diffused is important in order to target different users. For example, Eurofound has recently used a video to disseminate the main highlights of the results of the third EQLS. This approach is also an efficient way to communicate to new users the purpose of the survey.

Eurofound has used its Survey Mapping Tool to disseminate the findings of the survey. This approach makes the user experience more visual and interactive.

Fundamental information on the methodology, questionnaire, sampling, coding, weighting and quality assurance is available on the web site, providing the user with the necessary background information for correctly interpreting the findings.

Communication of basic information in all European languages is good. Most of the information on the EQLS web site is published in 26 European languages, and the Survey Mapping Tool is available in English, French, German, Spanish and Dutch.

Eurofound also informs the user of upcoming publications. For example, 'It is expected that the data set will be made available to the public through the UK Data Archive in spring 2013' (Eurofound, 2013).

Publications include:

- *Quality of life in Europe: Impacts of the crisis* (Eurofound, 2012), which disseminates the results of the survey in an exhaustive report that compiles all the main findings and explains them in detail against the current backdrop of the economic crisis;
- *Development of the Quality of Life Survey: (EQLS) Questionnaire* (Eurofound, undated), which describes the changes of the questions that have been implemented in the last editions (2003 and 2007). This is an extremely useful document for the researcher or analyst to detect easily the changes that have been made from one edition to the next. In other official European surveys (EU-SILC and the EU LFS), this information is not always published in such a clear manner;
- *Third European Quality of Life Survey: Technical report* (GfK EU3C, 2011), which provides detailed technical information on the survey.

¹⁷ See <http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/documents/EN-EU-SILC-MICRODATA.pdf>

It is important to highlight the clarity of the results disseminated by Eurofound (EQLS 2007 microdata), which, from a user point of view, are well documented, with clear definitions of variables that are correctly labelled. The need for diffusing clear, easily understandable data is fundamental to ensure that the user is correctly interpreting the data that is being disseminated.

In short, it is evident that Eurofound has successfully met the aim of ‘enabling the users to access the survey findings and data easily and offering them the necessary background information for interpreting the findings’. Eurofound provides clear instructions and adds direct links to the location of the information on its web site making the user experience easy and user-friendly (Eurofound, 2011).

Coherence and comparability

Annex 9 presents a summary table of the wording and response categories in the questionnaires of the third EQLS 2011, the second EQLS, EU-SILC 2011, the EU LFS 2011 and the European Working Conditions Survey (EWCS) 2010. This comparison is based on the list of core social variables established in the ESS.¹⁸ The main conclusions of the comparison of these variables are presented below by variables.

- Demographic variables such as *sex, age, country of birth, citizenship, legal and de facto marital status, household composition, place of residence* and *education level* are basically recorded in a similar way in all surveys considered.
- The *degree of urbanisation* is expressed in the EQLS in terms of size of locality of residence, rather than of density, as in EU-SILC and the EU LFS. As there is no internationally agreed definition of rural or urban areas, both possibilities should be valid.
- With respect to *labour status*, the response categories for the third EQLS are the same as the second EQLS, but are slightly different from those used in EU-SILC and the EU LFS. The EQLS differentiates unemployed by time (less or more than 12 months); given the relevance of long-term unemployment, this information gathered in the third EQLS provides added value. In addition, the third EQLS records part-time work more precisely than EU-SILC and the EU LFS, recording the exact number of working hours instead of using a binary question discriminating between full-time and part-time work.
- The record of *occupation* has been significantly improved from the second EQLS with the addition of new clustered options in the third EQLS, allowing for more detail. Given the sample size of the EQLS, the use of ISCO-08 codes as in EU-SILC or the EU LFS, is not recommended.
- For *economic sector*, a similar situation occurs with the use of NACE Rev. 2 codes in EU-SILC and the EU LFS, while EQLS focuses on public–private breakdown.
- Income in the third EQLS is measured as *net household income*, with a variety of answering options (weekly, monthly and annual). EU-SILC collects different variables on gross income, taxes, cash transfers and social contributions. The EU LFS records income according to deciles.

In summary, the third EQLS is less suited to providing detailed statistics on employment (occupation and sector). However, the fact that the EU LFS is a well-consolidated survey covering all Member States and providing detailed enough results means that the EQLS may be considered a good complementary information source.¹⁹

¹⁸ The ESS core social variables are as follows: demographic information (*sex, age in completed years, country of birth, country of citizenship at time of data collection, legal marital status, de facto marital status* (consensual union) and *household composition*), geographic information (*country of residence, region of residence, and degree of urbanisation*) and socioeconomic information (*self-declared labour status, status in employment, occupation in employment, economic sector in employment, highest level of education completed and net monthly income of the household*).

¹⁹ This is acknowledged in Mikulic (2009).

The consultant has carried out a comparison, based on weighted data, between the values for four core social variables (*education, employment, occupation and work time*) in the third EQLS, and the EU LFS 2011, EU-SILC 2011 and ESocS 2010. There is also a comparison between the third EQLS and EU-SILC 2011 on the population at risk of poverty. The differences between these percentages, at country and EU27 levels, are presented in Annex 10. The distributions of these variables have been calculated for comparable subsamples of the surveys involved. Specifically, the comparison between the EU LFS 2011 and the third EQLS has been carried out for respondents aged 25 years or more (or 20–64 years depending on the format of the data disseminated by Eurostat), and the comparison with EU-SILC 2010 for all the respondents aged 18 or over (or respondents aged 18–64 years depending on the availability of the data disseminated by Eurostat). For ESocS, the comparison considered all respondents aged 18 or over.

The main conclusions of this comparison are the following.

- At an aggregated EU27 level, the distribution of *education* and *occupation* provided by the third EQLS is very similar to that provided by the EU LFS 2011 and EU-SILC 2011. However, the differences in the *percentage of employed persons* are larger: 5.5 percentage points between the third EQLS and the EU LFS 2011, and 4.5 points between the third EQLS and EU-SILC 2011. The percentage of employed persons in the third EQLS is lower than in the other two surveys. ESocS does not cover all EU27 countries and therefore does not produce EU27 aggregates.
- At the country level, the variable *education* presents larger differences in some specific cases. For the UK, there is a large overestimation of the population with low education (ISCED levels 0–2) and an underestimation of the percentage of the population with intermediate education (ISCED levels 3–4). Some other differences that stand out include large deviations in Spain, Lithuania and other countries. These differences are also present in the comparison with ESocS, and in general there is significant variation in the results of the two surveys for this variable.
- As regards *occupation*, the percentage of skilled agricultural workers in Romania is underestimated in comparison with the EU LFS 2011. The percentage of respondents with the occupation of skilled agricultural worker varies considerably between the third EQLS and the ESocS across almost all countries. Returning to the EU-LFS, there are also relevant differences for the case of Luxembourg, where the professional and clerical occupations may present some confusion.
- The proportion of people working part time, defined as people working less than 35 hours per week, according the third EQLS is very similar at the EU-aggregate level to the corresponding proportions in EU-SILC 2011 and the EU LFS 2011. Differences exist for the UK, Greece and Spain, but differences also exist between the EU LFS and EU-SILC, possibly due to varying definitions of part time. On the other hand, the comparison with the ESocS applies the same definition for part time (fewer than 35 hours worked per week) and the differences observed are smaller than with the ESS surveys.

It should be noted here that the output of the third EQLS is in general coherent with the data from the ESS as regards the core social variables. The differences highlighted above apply to only a small part of the sample for certain countries and for certain employment situations, occupations and sectors.

The second and third EQLS results show great disparities in the average household size of the EU27 Member States, with the results from the second EQLS showing this figure to be higher than in the third EQLS. A detailed comparison of this indicator has been carried out (see Table 17).

Comparing data from these two years with data from EU-SILC and the EU LFS reveals this difference to be due to elevated household sizes recorded in the second EQLS. The third EQLS results are in line with those from EU-SILC and the EU LFS 2011 rounds. The measurement of household size by the EQLS has improved in the third wave with respect to the second and is now coherent with the one provided by the large, ESS social surveys.

Table 17: Average household size

	EQLS		EU LFS		EU-SILC	
	2007	2011	2007	2011	2007	2011
EU27*	2.9	2.4	2.4	2.4	2.4	2.4
Austria	2.7	2.3	2.3	2.3	2.3	2.3
Belgium	2.8	2.3	2.4	2.4	2.3	2.3
Bulgaria	3.1	2.8	2.5	2.3	2.9	2.9
Cyprus	3.5	3.1	2.9	2.8	2.9	2.8
Czech Republic	2.9	2.5	2.5	2.4	2.5	2.5
Denmark	2.5	2.0	2.2	2.1	2.0	2.0
Estonia	2.8	2.2	2.4	2.3	2.3	2.3
Finland	2.6	2.1	2.2	2.1	2.1	2.1
France	2.8	2.3	2.3	2.3	2.3	2.2
Germany	2.6	2.1	2.1	2.1	2.1	2.0
Greece	3.3	2.8	2.5	2.4	2.7	2.6
Hungary	3.0	2.6	2.6	2.6	2.6	2.6
Ireland*	3.4	2.8	2.8	2.8	2.8	2.7
Italy	3.0	2.4	2.5	2.4	2.4	2.4
Latvia	3.1	2.5	2.6	2.6	2.6	2.5
Lithuania	3.0	2.5	2.6	2.3	2.6	2.4
Luxembourg	3.0	2.6	2.5	2.4	2.5	2.5
Malta	3.6	2.9	3.0	2.9	2.9	2.9
Netherlands	2.7	2.2	2.2	2.2	2.3	2.2
Poland	3.5	2.9	2.9	2.8	2.8	2.8
Portugal	3.2	2.7	2.8	2.7	2.8	2.6
Romania	3.4	2.9	2.9	2.9	3.0	2.9
Slovakia	3.1	2.9	2.9	2.8	2.8	2.8
Slovenia	3.4	2.6	2.7	2.5	2.8	2.6
Spain	3.3	2.7	2.8	2.7	2.8	2.7
Sweden	2.6	2.1	:	1.9	2.1	2.1
UK	2.8	2.4	2.3	2.4	2.4	2.3

*Note: * 2011 data not yet available. EU27 is a Eurostat 2011 estimate.*

Conclusions

As established in this chapter, the output of the third EQLS exhibits high-quality standards in all five quality dimensions established in the ESS, particularly for a social survey that is not dedicated to producing official statistics. The EQLS has a high relevance since it covers quality of life issues, which are on the political agenda of the European Commission and on the working agenda of Eurostat, in particular, as a result of the Commission communication ‘GDP and beyond’ (2009) and the publication of the report by Stiglitz, Sen and Fitoussi (2009). The third EQLS sampling errors are in general low for a social survey. The production and dissemination plan has been implemented as foreseen, with no significant deviations. Access to EQLS microdata through the UK Data Archive is user-friendly and efficient. The publication *Quality of life in Europe: Impacts of the crisis* is exhaustive and compiles all the main findings of the survey, explaining them clearly against the backdrop of the current economic situation. The output of the third EQLS is in general coherent with the official data in the ESS as regards the core social variables. Detected deviations on some variables such as employment status, occupation or sector for specific countries apply only for a small part of the third EQLS sample.

As in most of the social surveys in the EU, the key quality improvement issue of the third EQLS output relates to non-sampling errors, specifically unit non-response. Since unit non-response rates in social surveys show an increasing trend, more effective strategies to deal with this fact should be implemented downstream (non-response reduction) and upstream (non-response treatment). Chapter 4 presents the consultant’s suggestion on this issue for future waves of the EQLS.

4 Recommendations

Strategic decision analysis

Value chain analysis

As a first step to analysing the potential role of the EQLS and generating recommendations on its use, it is important to understand how it creates value for the potential users of the information. The consultant has carried out a value chain analysis to deal with this question.²⁰ In the case of the EQLS, value adding and costs can be summarised in the basic trade-off below.

Value of EQLS approach	Costs of EQLS approach
<ul style="list-style-type: none">• Specific and detailed information on the quality of life in Europe that is not provided by more general ESS surveys• Lower cost than other ESS social surveys	<ul style="list-style-type: none">• Lower accuracy than that of other ESS social surveys due to its smaller sampling size• Subpopulation detail (for example, geographic, minorities) not possible due to sampling size

SWOT analysis

This section presents the evaluation of the strengths, weaknesses, opportunities and threats (a SWOT analysis) of the EQLS in terms of achieving its objectives for the five key quality dimensions,²¹ where:

- strengths are attributes of the EQLS that are helpful in efficiently and effectively achieving the quality objectives;
- weaknesses are attributes of the EQLS that are harmful to efficiently and effectively achieving the quality objectives;
- opportunities are external conditions that are helpful to efficiently and effectively achieving the quality objectives;
- threats are external conditions that could be damaging to efficiently and effectively achieving the quality objectives.

The SWOT analysis is presented according to the nine steps of the GSBPM.

Specify needs

Strengths

- The EQLS has the flexibility to cover topics related to quality of life in greater detail than other more general ESS social surveys.
- The EQLS questionnaire has a clear procedure to be approved by internal users that guarantees that it fulfils the needs of the stakeholders represented in Eurofound.
- The contractor was provided with a questionnaire script with variables already specified.

²⁰ Value chain analysis was introduced by Michael Porter in his 1985 book *Competitive advantage: Creating and sustaining superior performance*.

²¹ Relevance and completeness; accuracy and reliability; timeliness and punctuality; accessibility and clarity; coherence and comparability

Weaknesses

- The objectives of the EQLS are not fine-tuned at the country level.

Opportunities

- Additional external users not represented in the third EQLS (such as academia and social entities) could participate in the definition of the objectives of the fourth EQLS.
- The subjects related to quality of life, the ‘hot topics’, are of interest to a large community of users, increasing the visibility of these European statistical operations.
- Official character of outputs is not requested for the EQLS.
- New tools to satisfy users’ needs with a lower cost (online user surveys).

Threats

- Information provided by the EQLS might not fulfil external users’ needs, decreasing awareness and interest of users about this operation.
- Alternative surveys or data sources may exist based on official social surveys, registers, private sources and so on, partially covering the same objectives.

Design

Strengths

- High level of involvement of Eurofound staff in the design of the EQLS.
- The ToR of the EQLS specifies, with precision, both the statistical outputs to be produced and the methodology (process and analysis) to obtain them.
- The sampling design allows survey implementation with a lower budget than that of Eurostat’s standards.
- The variables to be collected are perfectly specified by Eurofound in a questionnaire script.
- Interviews are implemented personally and face-to-face.
- Random routes are implemented in two different phases by two different teams: enumeration of the addresses and interviewing. This separation makes for more effective control of the fieldwork than that in the standard random routes, where the interviewers select the addresses and conduct the interviews at the same time.

Weaknesses

- The structure for the contractor’s quality assurance reports is not sufficiently detailed in the ToR of the EQLS.
- No guaranteed access to high-quality sampling frames (for example, those used by national statistical institutes). The sampling frames to be used for each country are not previously specified in the ToR (except for their coverage).
- EQLS sampling design includes random routes, which do not perfectly fulfil the requirements of probability sampling; because selection probabilities are unknown, weighting cannot be properly carried out and exact estimation of sampling errors is not possible.
- As in other social surveys and Eurobarometers, small sample size at the country level does not allow detailed outputs (for example, to study small areas or subpopulations) and reduces the accuracy of aggregates.

Opportunities

- Existence of reliable sampling frames in many countries (principally from the NSIs) that could allow for random sampling (including cluster sampling); some NSIs are allowed to provide master samples to other producers; access and availability of those sampling frames to Eurofound as a contributor to the EU statistics could be explored.

- The EQLS could be repeated in a framework with budgetary restrictions.
- Improving policymaking requires information on specific issues related to quality of life as provided by the EQLS and not available in other ESS surveys.
- Good, well-established practices for household surveys (including frequent exchange of information and harmonisation of procedures) exist in the EU NSIs. These practices could be leveraged by Eurofound to improve the overall design of the survey. Specifically, NSIs may support Eurofound in the establishment of the sampling frame and sample selection.

Threats

- Less-demanding sampling methodologies may generate unreliable outputs.
- The length of questionnaires may reduce the response rate.

Build

Strengths

- High level of involvement of Eurofound staff in the production of all the tools for the EQLS.
- Strict procedure for the approval of the final version of the questionnaire.
- Strict quality control of the translation procedure.
- Different language versions of the questionnaire adapted to each country, even if the language is the same across several countries.
- Implementation and evaluation of a survey pilot, according to the technical specifications.

Weaknesses

- No weakness detected.

Threats

- Language and culture heterogeneity among countries may not allow comparable outputs to be obtained fully.

Collect

Strengths

- Sample size according to ToR requirements is achieved in each country.
- Face-to-face collection increases the quality of answers for the topics included in the survey and increases the response rate.
- The decentralised collection through the contractor's local branches in each country allows for better coverage.
- EQLS has good timeliness and relatively lower cost than the benchmark surveys that have larger samples (EU-SILC and the EU LFS).
- Item non-response is very low and concentrated in very few items.

Weaknesses

- The selection method may have affected key socioeconomic variables such as education level and occupation.
- Response is not compulsory.
- The unit non-response rate, mainly due to refusals, is higher than in other ESS social surveys and is very different among countries. In addition, it is a very likely cause for the difference in the output distribution of some core social variables such as education level and occupation.
- The average time to complete the questionnaire is 38 minutes, which may be one cause for refusal.

Opportunities

- Improvement of the reporting of data collection (in particular non-response rates) according to existing ESS standards.
- Establishment of standard procedures for respondent selection for all countries and control procedures to enforce them.
- Existence of networks of specialists in training interviewers and permanent staff in EU NSIs that could be used for assisting the EQLS.

Threats

- Increasing reluctance among the EU population to answer surveys and high unit non-response may generate biased outputs.
- Other social and opinion surveys in place add a burden to respondents.

Process

Strengths

- High level of involvement of Eurofound staff in the process of the EQLS and the quality control of its implementation.
- Weighting procedure has been properly implemented as regards region, gender by age and urbanisation, so the sample reflects the population structure as regards these variables.
- Data aggregation is properly computed.

Weaknesses

- The values of the weighting for some specific groups are large, and they have been trimmed in 1.3% of the cases. However, the impact of such trimming on the final outputs of the third EQLS is negligible.
- No explicit description of the treatment of missing variables (imputation) and of the impact of unit non-response in the results.
- Trimming large weights may induce biases in the output of the EQLS.

Opportunities

- Availability of more complete methodologies for weighting and imputation.

Threats

- General trend of rising non-response in social survey will require a more complete methodology for data processing, and specific weighting and imputation methodologies to cope with the potential biases induced by the increasing unit and item non-response rates.

Analyse

Strengths

- The outputs of EQLS were properly produced.

Weaknesses

- No weaknesses detected.

Opportunities

- Application of additional statistical techniques (multivariate analysis, modelling and so on) to obtain more information from the data.

Threats

- The accuracy level may be low (due to limited sample size per country), and it cannot be fully ascertained due to limitations related to the random route method in some countries.

Disseminate

Strengths

- EQLS results have been disseminated in a range of formats (including microdata) according to the previously established dissemination calendar.
- Some quality indicators such as non-response rates are disseminated.

Weaknesses

- Precision indicators such as sampling errors have not been disseminated.
- Item non-response is not disseminated.

Opportunities

- ICT and new dissemination methodologies such as interactive visualisation will allow for an improvement and customisation of the dissemination process.

Threats

- Alternative surveys or data sources may be disseminated covering the same objectives.

Archive

Strengths

- The use of the UK Data Archive is cost-effective and provides data in an accessible way to researchers and advanced users.

Weaknesses

- No weaknesses detected.

Opportunities

- Other repositories of surveys such as the International Household Survey Network (IHSN) can be used.
- Ease of use of statistical software allows users to extract detailed information if provided with the necessary metadata to do so.

Threats

- No threats detected.

Evaluate

Strengths

- An external evaluation contract was granted by Eurofound.

Weaknesses

- The ToR does not specify a format for the contractor quality reports (general and country level).

Opportunities

- Improvement of the contractor's reporting system according to ESS standards, in particular in the provision of quality indicators referring to precision, item non-response and treatment of non-response.

Threats

- As the ToR does not specify a format for the quality reports, the methodological and quality reports produced by the contractor for each country may not be sufficient to ensure the standards of quality that are usual in the ESS.

Recommendations on the strategy for the implementation of the EQLS

Recommendations at the institutional level

Seek further synergies with the ESS in the process of EQLS implementation

The EQLS is not considered part of the European Statistical Programme and falls outside the scope of activity of the ESS (comprising Eurostat, the 27 Member State National Statistical Institutes and the system of central banks).

However, greater involvement of the ESS and the resulting transfer of know-how could enhance the quality of the process and output of the EQLS. In particular, the design and representativeness of random samples would improve with the use of sample frames or even random samples extracted by the NSIs. The appropriate legal arrangements for the protection of confidentiality should be considered. This could be achieved by working closely with Eurostat, which maintains a privileged relationship with the NSIs.

In any case, data provided by the EQLS should not necessarily be considered official information of the ESS, as happens with other quality of life or opinion surveys in the Member States, or with the Eurobarometer implemented by the European Community. It has to be recalled that non-official statistics are also produced by NSIs in some cases.

Improve the internal capacity of Eurofound for quality management

The initiative to draft the ESMG will surely improve Eurofound's capacity to manage the quality of surveys. To strengthen this capacity, it may be convenient to establish an operational unit responsible for survey quality management, with training on this topic. This would also improve the preparation of ToR for surveys and their quality assessment (which may still be carried out by an external evaluator).

The unit would be responsible for establishing real-time monitoring indicators for surveys to correct for deviations if necessary during data collection and processing by external contractors.

Promote the ESMG as a quality framework

A contractor-oriented version of the ESMG should be an integral part of the ToR. In addition, a user-oriented version should be made available as a component of the dissemination activity.

Recommendations on EQLS methodology

Recommendations on questionnaire design

Refine the general coherence of concepts

The Questionnaire Development Group (QDG) should make explicit (in the glossary and methodological reports) the adoption of concepts, definitions and classifications as per international standards (for example, core social variables, international classifications for education levels, and occupations).

Where possible, variable definitions and response categories should be matched with those of the ESS and other European social surveys (EU-SILC, EU LFS, HBS and ESocS) to improve

coherence analysis. Otherwise, the correspondences to be used for matching the EQLS with external source data should be indicated.

In particular, classification variables such as labour status and occupation should be arranged in such a way as to allow for coherence analysis (by merging categories if necessary).

Recommendations on sampling design

Only probabilistic samples should be used

In order to achieve representativeness of the sample and to be able to estimate sampling errors, probabilistic samples are required.

An adequate application of stratified multistage sampling, with eventual clustering in one of the last stages (city blocks or enumeration areas), could provide a higher level of accuracy without a substantial increase in costs.

Random routes are generally not recommended because they do not allow for calculation of certain survey information (sampling errors and sample weights). Random routes should only be used in cases where no good sampling frame is available to support random probability sampling. In countries where random routes are required, the separation between enumeration and interviewing phases applied in the third EQLS should be maintained, since it allows for a better control of the fieldwork than that of the standard random routes, where the interviewers select the addresses and carry out the interviews simultaneously.

Good-quality sample frames are a requisite for probabilistic sampling

As mentioned above, official sample frames should be used for the selection of random samples. This task could be facilitated by the collaboration of NSIs in providing a master sample to be used in future waves of the EQLS by designing the master sample in collaboration with the NSIs.

Eurostat could also act as a major intermediary in the process of involving the NSIs for assisting with sampling frame access.

Recommendations on data collection methodology

Achieving higher response rates

As most of the non-response corresponds to refusals, special attention should be paid to the pre-survey promotion, contact with selected respondents, and interview training in order to minimise refusals. The technical solutions proposed by the bidders should be evaluated for the award of the contract.

Response quality control should be improved

Where allowed by the legal framework of the country, further information on the reasons for refusal could be collected. This information may help to establish future actions to reduce non-response.

Recommendations on data processing

Individual weights should be based on probabilities of selection and size of household

According to the recommendation to use probabilistic sampling, weights to expand and aggregate individual sample data to the population level should be calculated by using (the inverse of) selection probabilities of the household and the size of the selected household. This methodology is currently applied in the case of probabilistic sampling, but not in those countries where random routes are considered.

The methodology applied in the third EQLS for calibration with respect to reference population could be improved in future waves. To this end, additional calibration variables, specifically labour status, should be considered. This would improve the quality of results (coherence with reference data). The process should be described and implemented in similar ways in all countries, with comparable and updated reference populations.

The strategy of extreme weight trimming should be improved

The weight distribution may include some extreme values that should be trimmed before the actual computation of the estimates. Weight trimming will generally increase the potential for a bias in the estimate while artificially decreasing the sampling variance. The ultimate goal of weight trimming is to reduce the sampling variance more than enough to compensate for the possible increase in bias and, thereby, to reduce the mean squared error.

There are no general rules to characterise the outliers in the weight distribution that should be trimmed. The consultant suggests following Potter (1988) in the use of a combination of three trimming strategies that could be used in future waves of the EQLS.

- **Inspection strategy:** This method is based on an exhaustive descriptive analysis of the weight distribution. In most cases, the large weights that can increase the sampling variance can be easily identified because these weights will differ from the other weights by a substantial amount.
- **Estimated mean squared error trimming:** In this method, an estimate of the mean squared error for selected data items at various trimming levels is conducted to empirically determine the trimming level. For determining cut-off values for weights, a visual inspection of the distribution of the sampling weights is carried out. A set of key data items is identified, and an estimate of the mean squared error is calculated for the key data items at different candidate cut-off values. The values of the estimated mean squared error can be plotted versus the cut-off values to determine a cut-off value that achieves adequate reductions in the estimated mean squared error for all or most of the data items.
- **Comparison of the squared weight to the mean squared weight:** This procedure uses the comparison of the contribution of each weight to the sampling variance of an estimate by systematically comparing all weights to a value computed from the sum of the squared weights for the sample. If a particular weight is above the computed value, the weight is assigned this value, and the other weights are adjusted to make the new weights sum to the original weight total. The sum of the squared adjusted weights is computed again and used in a second comparison of each individual adjusted weight. The procedure is repeated until all adjusted weights are below or equal the value based on the sum of the adjusted squared weights.

Arbitrary rules, such as trimming weights lower than 0.3 or larger than 3 should be avoided.

The methodology to conduct the weight trimming should be specified in the ToR or has to be explicitly provided by tenderers of the next wave of the EQLS.

Recommendations on the management of the EQLS

Recommendations on EQLS reporting

Provide a template for quality reporting

A template for the methodological report at the country level could simplify the post-survey quality assessment. The ESS has developed standards for reporting on the quality of statistical products. There is an opportunity to adapt models such as the ESS Standard for Quality Reports (Eurostat, 2009), the ESS metadata structure, glossaries and so on. The ESMG also indicates the envisaged structure of the quality assurance plan: the different phases in the survey process; agents involved in each of the phases; measurable outcomes of each of the phases (both minimal and optimal); and actions of the agents involved to achieve the most desirable outcomes and control the achievement of outcomes.

In particular, methods for calculating precision should be required of the contractor. Sampling errors and other precision measures should be estimated and disseminated as an annex for advanced users. As mentioned in the ESMG, the quality report should also include key process variables.

The use of these standards for the reporting on the EQLS quality should be stipulated in the contract.

Conclusions

The SWOT and value chain analyses show that the third EQLS plays a relevant role in the framework of European social statistics as a reliable and flexible source of information on quality of life. However, as presented in the recommendations, there are some specific strategies that could be implemented to improve the quality of the EQLS in future waves with no significant increment in costs. From the consultant's viewpoint, the three main recommendations to be implemented in the fourth EQLS in order of priority are the following.

1. Substitution of random routes by random sampling wherever possible. To obtain the required sampling frames, Eurofound could work with the NSIs, which could even select the actual sample and replacements to be used. An adequate application of stratified multistage sampling based on these sampling frames, with eventual clustering in one of the later stages (city blocks or enumeration areas), may provide higher levels of accuracy without a substantial increase in the cost of the survey.
2. Improvement of the weighting and calibration procedures, for instance by considering additional calibration variables such as labour status. The general trend of growing non-response rates in social surveys in Europe increases the relevance of this approach to upstream treatment of non-response in future waves of the EQLS.
3. Inclusion in the fourth EQLS ToR of the templates to be used by the contractor in quality reporting.

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Annex 1: Process flowcharts

Figure A1: Third EQLS questionnaire design and testing phase flowchart

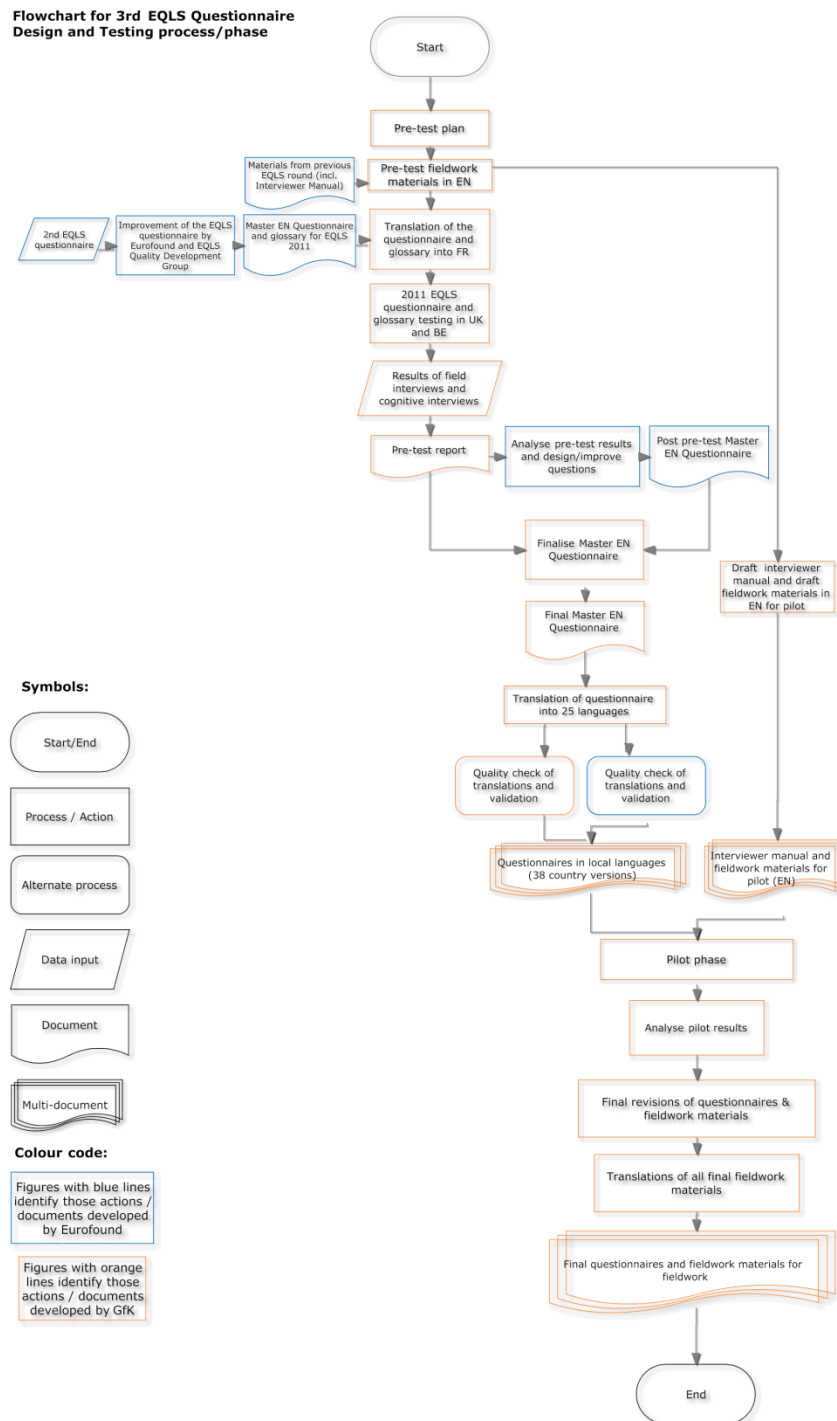


Figure A2: Third EQLS planning phase flowchart

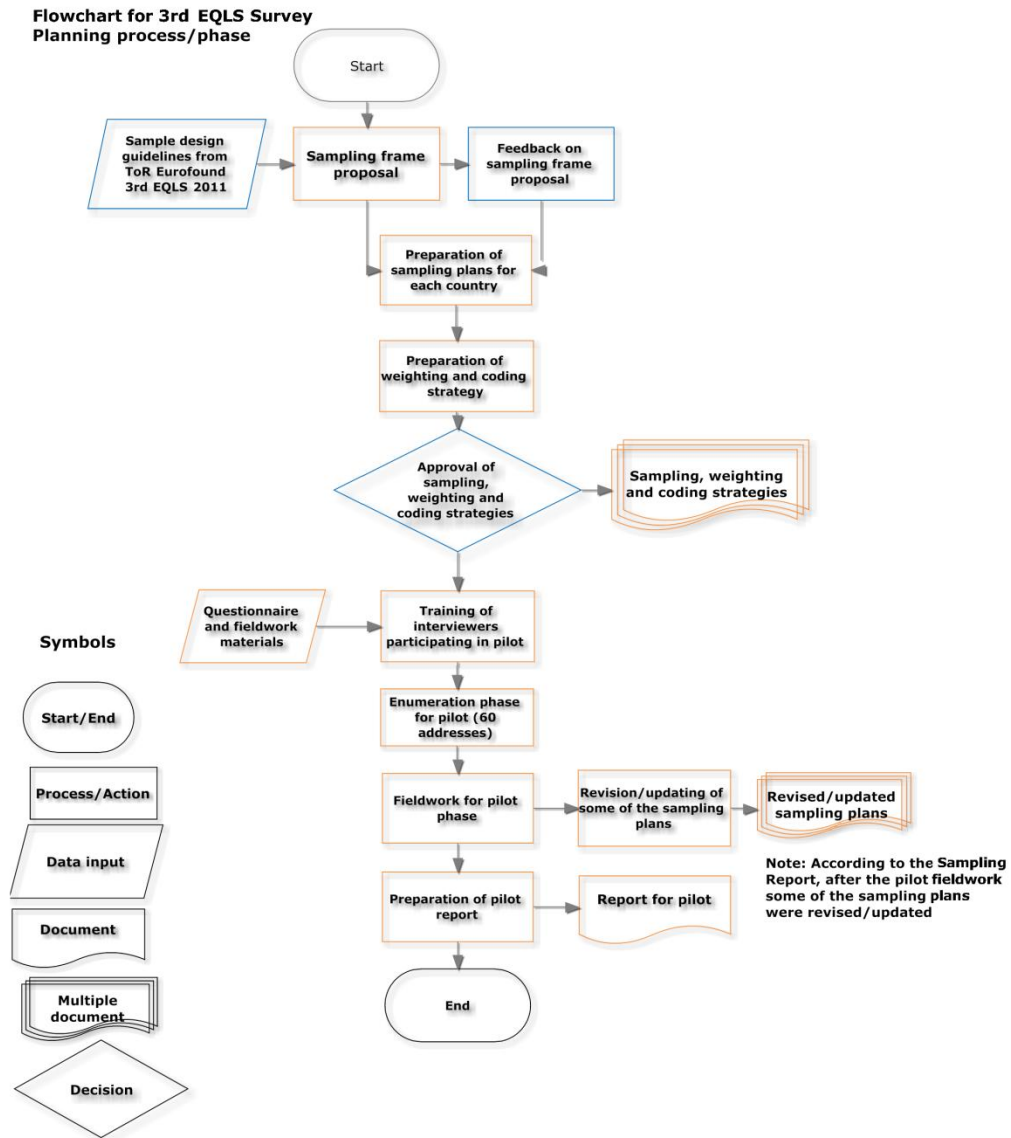


Figure A3: Third EQLS collection phase flowchart

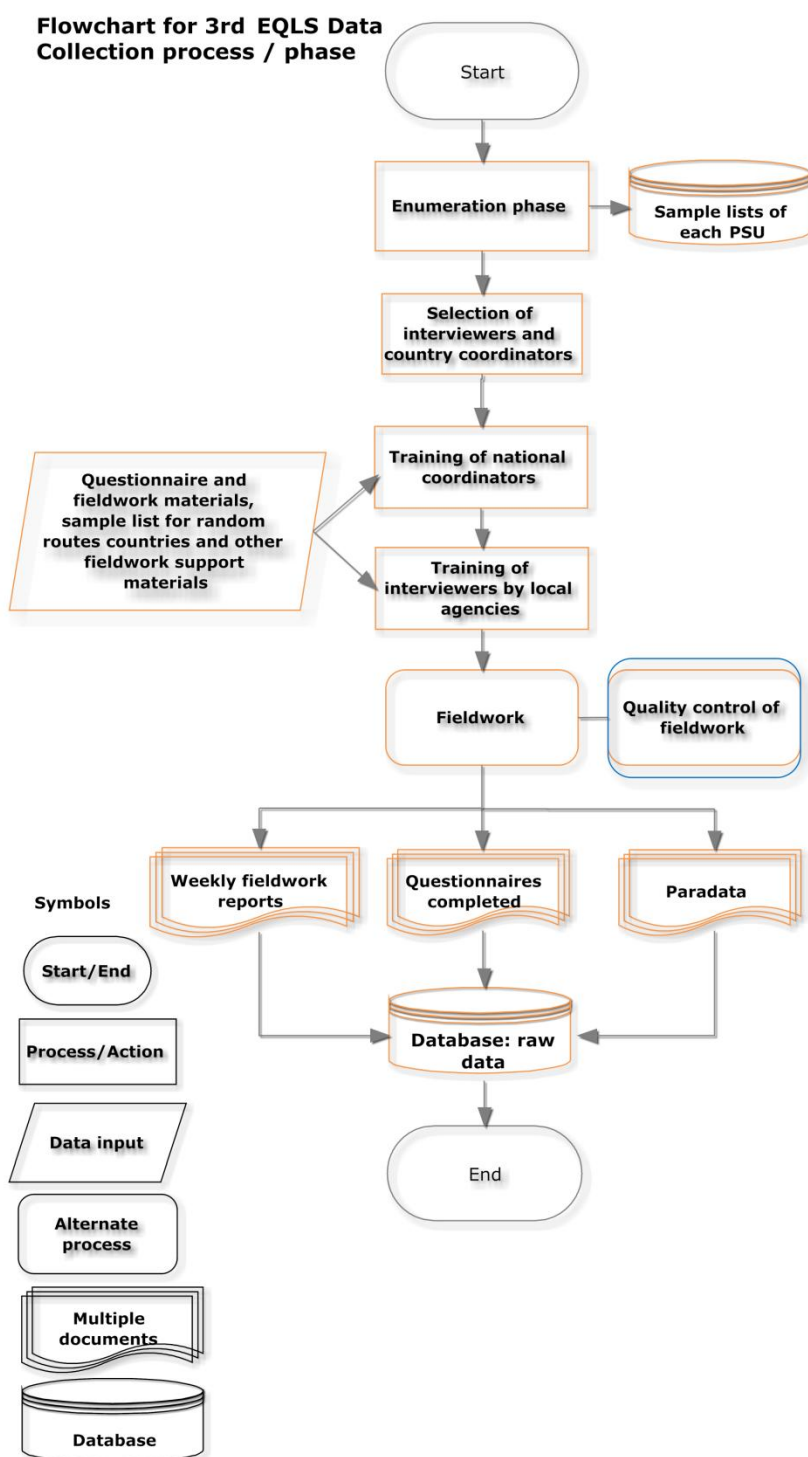
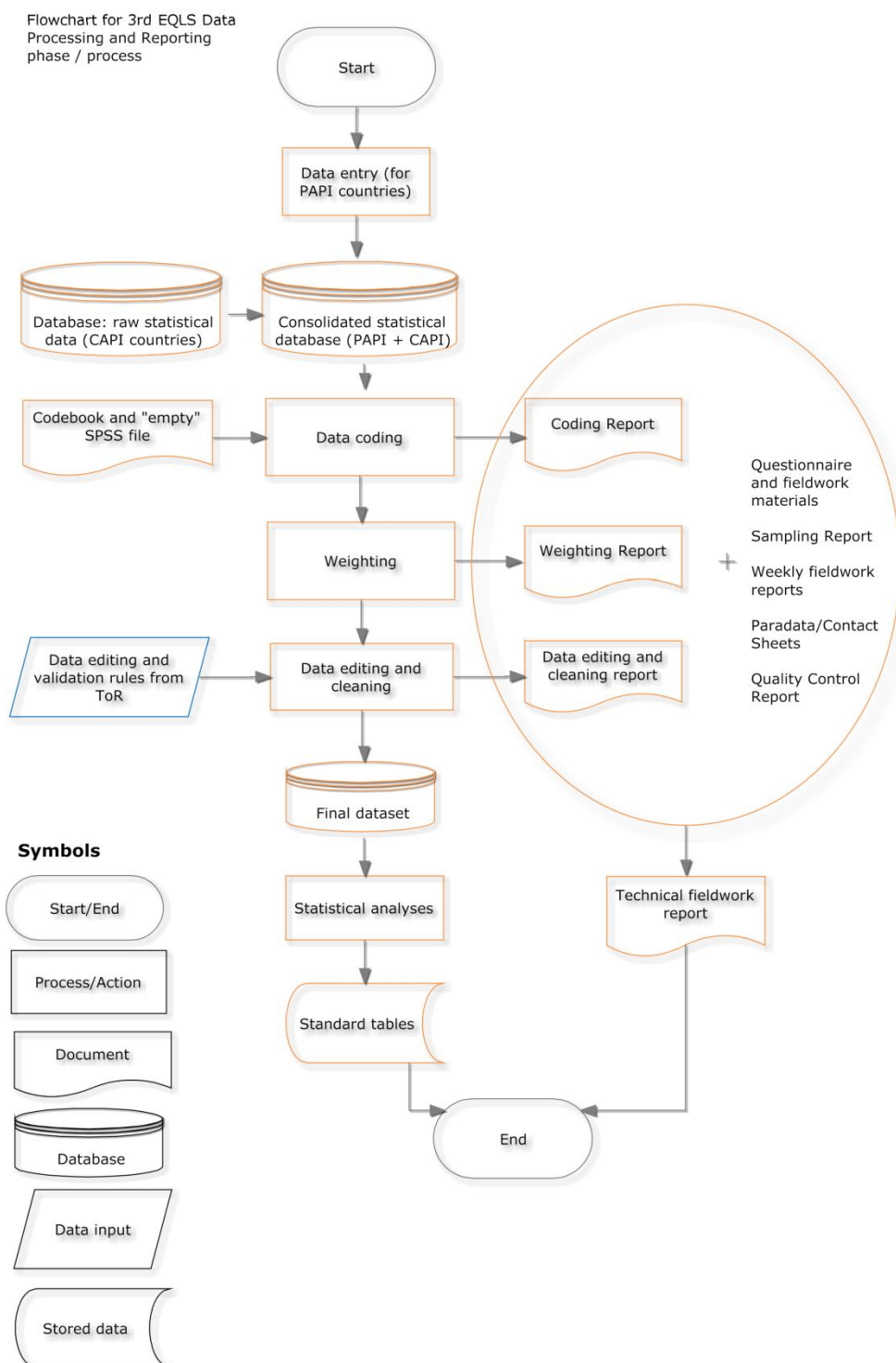


Figure A4: Third EQLS data processing and reporting phase flowchart



Annex 2: Sampling design

Table A1: Sampling design stages by county

Country	First stage	Second stage	Third stage	Fourth stage
Austria	<ul style="list-style-type: none"> Units: communities Stratification: NUTS2 x urbanisation Selection: proportional to size 	<ul style="list-style-type: none"> Units: post-certified address code PAC Selection: equal probability 	<ul style="list-style-type: none"> Units: households Selection: Systematic 	<ul style="list-style-type: none"> Units: people Selection: next birthday
Belgium	<ul style="list-style-type: none"> Units: post code clusters Stratification: NUTS2 x urbanisation Selection: proportional to size 	<ul style="list-style-type: none"> Units: households Selection: equal probability 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Bulgaria	<ul style="list-style-type: none"> Units: settlements Stratification: NUTS2 x urbanisation 	<ul style="list-style-type: none"> Units: households Selection: random routes 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Cyprus	<ul style="list-style-type: none"> Units: enumeration area Stratification: NUTS2 x urbanisation Selection: proportional to size 	<ul style="list-style-type: none"> Units: households Selection: random routes 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Czech Republic	<ul style="list-style-type: none"> Units: postal delivery districts Stratification: NUTS2 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Germany	<ul style="list-style-type: none"> Units: ADM areas Stratification: NUTS2 x urbanisation Selection: probabilities proportional to size 	<ul style="list-style-type: none"> Units: households Selection: random routes 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Denmark	<ul style="list-style-type: none"> Units: geographic areas of 500 m in diameter (approx.) Stratification: NUTS2 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Estonia	<ul style="list-style-type: none"> Units: starting addresses Stratification: county x settlement type Selection: systematic 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Greece	<ul style="list-style-type: none"> Units: villages and municipalities Stratification: NUTS2 x urbanisation Selection: probability proportional to size 	<ul style="list-style-type: none"> Units: starting addresses Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday
Spain	<ul style="list-style-type: none"> Units: census areas Stratification: NUTS2 x urbanisation Selection: probability proportional to size 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Finland	<ul style="list-style-type: none"> Units: municipalities Stratification: NUTS2 x urbanisation Selection: probability proportional to size 	<ul style="list-style-type: none"> Units: postal codes Selection: systematic 	<ul style="list-style-type: none"> Units: households Selection: equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: next birthday

Country	First stage	Second stage	Third stage	Fourth stage
France	<ul style="list-style-type: none"> Units: communes Stratification: UDA x urbanisation Selection: probability proportional to size 	<ul style="list-style-type: none"> Units: starting addresses Selection: equal probability 	<ul style="list-style-type: none"> Units: households Selection: random routes 	<ul style="list-style-type: none"> Units: people: Selection: next birthday
Hungary	<ul style="list-style-type: none"> Units: settlements Stratification: NUTS2 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: equal probabilities 		
Ireland	<ul style="list-style-type: none"> Units: wards/electoral divisions Stratification: NUTS2 x urbanisation Selection: probabilities proportional to size 	<ul style="list-style-type: none"> Units: households Selection: equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Lithuania	<ul style="list-style-type: none"> Units: starting addresses and villages Stratification: county x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Luxembourg	<ul style="list-style-type: none"> Units: mix of municipals and groups of zip codes Stratification: electoral districts x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Latvia	<ul style="list-style-type: none"> Units: settlements Stratification: NUTS2 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Malta	<ul style="list-style-type: none"> Units: people (voters) Stratification: no Selection: equal probabilities 			
Netherlands	<ul style="list-style-type: none"> Units: postal delivery points (house address) Stratification: NUTS2 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: next birthday 		
Poland	<ul style="list-style-type: none"> Units: 'gminas' Stratification: NUTS2 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: household addresses Selection: Equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Portugal	<ul style="list-style-type: none"> Units: cities, towns or villages (localities) Stratification: NUTS2 x urbanisation Selection: probabilities proportional to size 	<ul style="list-style-type: none"> Units: households Selection: random routes 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Romania	<ul style="list-style-type: none"> Units: localities Stratification: NUTS2 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: random routes 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Sweden	<ul style="list-style-type: none"> Units: people Stratification: no Selection: equal probabilities 			
Slovenia	<ul style="list-style-type: none"> Units: districts Stratification: NUTS3 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: people Selection: equal probabilities 		

Country	First stage	Second stage	Third stage	Fourth stage
Slovakia	<ul style="list-style-type: none"> Units: municipalities Stratification: 'kraje' districts x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: starting addresses Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: random routes 	<ul style="list-style-type: none"> Units: households Selection: next birthday
United Kingdom	<ul style="list-style-type: none"> Units: census super output areas Stratification: NUTS1 x urbanisation x Index of Multiple Deprivation Selection: probabilities proportional to size 	<ul style="list-style-type: none"> Units: households Selection: systematic 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Turkey	<ul style="list-style-type: none"> Units: districts 'mahalle' Stratification: NUTS2 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Croatia	<ul style="list-style-type: none"> Units: counties (SSU: settlements) Stratification: regions x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Former Yugoslav Republic of Macedonia	<ul style="list-style-type: none"> Units: electoral units Stratification: NUTS 3 x urbanisation Selection: equal probabilities 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Kosovo	<ul style="list-style-type: none"> Units: electoral wards Stratification: UNMIK districts x urbanisation Selection: proportional to size probabilities 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Serbia	<ul style="list-style-type: none"> Units: municipalities Stratification: NUTS 2 x urbanisation Selection: proportional to size probabilities 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Montenegro	<ul style="list-style-type: none"> Units: municipalities Stratification: NUTS 2 x urbanisation Selection: proportional to size probabilities 	<ul style="list-style-type: none"> Units: households Selection: random route 	<ul style="list-style-type: none"> Units: people Selection: next birthday 	
Iceland	<ul style="list-style-type: none"> Units: postcodes Stratification: region x urbanisation Selection: proportional to size probabilities 	<ul style="list-style-type: none"> Units: people Selection: equal probabilities 		

Annex 3: Number of visits by country

Table A2: Cross-tabulation of number of visits until completion of interviews by EU Member State, third EQLS

	Number of visits until interview completed (EU countries)							Total
	Interview not completed	1 visit	2 visits	3 visits	4 visits	5 visits	6 or more visits	
Austria	1057	297	512	133	47	31	12	2089
Belgium	1151	363	270	209	91	48	32	2164
Bulgaria	684	518	247	151	45	33	6	1684
Cyprus	279	1005	1	0	0	0	0	1285
Czech Republic	1274	637	225	136	12	1	1	2286
Germany	4475	1327	997	422	197	56	56	7530
Denmark	2696	446	334	145	64	30	5	3720
Estonia	880	669	200	87	30	13	3	1882
Greece	1427	630	198	90	44	19	23	2431
Spain	3383	442	476	259	150	91	94	4895
Finland	1623	394	326	153	97	32	18	2643
France	5350	722	790	407	187	115	49	7620
Hungary	1534	827	122	43	15	13	4	2558
Ireland	1075	367	313	172	98	48	53	2126
Italy	3533	769	861	404	149	51	16	5783
Lithuania	1443	743	218	109	39	12	13	2577
Luxembourg	6159	602	245	98	60	0	0	7164
Latvia	1540	605	218	92	43	34	17	2549
Malta	575	727	178	54	22	11	9	1576
Netherlands	2424	248	399	190	92	49	30	3432
Poland	1447	1822	278	84	37	31	10	3709
Portugal	2005	369	257	144	105	45	93	3018
Romania	1152	1144	232	81	44	27	14	2694
Sweden	1182	20	681	163	72	31	40	2189
Slovenia	1110	751	175	64	14	2	2	2118
Slovakia	635	594	250	93	50	12	1	1635
UK	6738	750	599	392	253	114	144	8990
Total	56831	17788	9602	4375	2057	949	745	92347

Table A3: Cross-tabulation of number of visits until completion of interviews by non-EU country, third EQLS

	Number of visits until interview completed (Non-EU countries)							Total
	Interview not completed	1 visit	2 visits	3 visits	4 visits	5 visits	6 or more visits	
Turkey	2244	1807	183	32	13	0	0	4279
Croatia	1194	541	273	133	45	6	3	2195
Former Yugoslav Republic of Macedonia	304	794	166	35	10	1	0	1310
Kosovo	125	931	138	7	0	0	0	1201
Serbia	1249	747	157	64	23	5	6	2251
Montenegro	1223	963	30	7	0	0	0	2223
Iceland	5156	1	318	533	92	35	21	6156
Total	11495	5784	1265	811	183	47	30	19615

Annex 4: Selected variables

This annex presents the list of questions selected for accuracy assessment. These variables were chosen as ‘representative’ in the sense that they cover the objectives of the survey and, consequently, convey a good idea about the rest. Twenty-two questions out of 68 have been chosen to cover all the topics in the third EQLS, giving preference to questions that have appear in earlier waves and/or other statistics on population and living conditions included in the ESS.

ASK IF RESPONDENT HAS PAID WORK (CODES 1-2 AT HH2D)

Q11. In general, do your working hours fit in with your family or social commitments outside work very well, quite well, not quite well or not at all well?

1 Very well, 2 Quite well, 3 Not quite well, 4 Not at all well

ASK IF RESPONDENT HAS PAID WORK (CODES 1-2 AT HH2D)

Q12. How often has each of the following happened to you during the last 12 months?

- I have come home from work too tired to do some of the household jobs which need to be done
- It has been difficult for me to fulfil my family responsibilities because of the amount of time I spend on the job
- I have found it difficult to concentrate at work because of my family responsibilities

Several times a 1 week, 2 year, 3 year, 4 Less often/rarely, 5 Never

Q19. Do you have any of the following problems with your accommodation?

- Shortage of space
- Rot in windows, doors or floors
- Damp or leaks in walls or roof
- Lack of indoor flushing toilet
- Lack of bath or shower
- Lack of place to sit outside (e.g. garden, balcony, terrace)

1 Yes, 2 No

Q21. How frequently do you do each of the following?

- Attend religious services, apart from weddings, funerals or christenings
- Use the Internet other than for work
- Take part in sports or physical exercise
- Participate in social activities of a club, society, or an association

1 Every day or almost every day, 2 At least once a week, 3 One to three times a month, 4 Less often, 5 Never

Q23. Over the last 12 months, have you ...?

- Attended a meeting of a trade union, a political party or political action group
- Attended a protest or demonstration
- Signed a petition, including an e-mail or on-line petition
- Contacted a politician or public official (other than routine contact arising from use of public services)

1 Yes, 2 No

Q25. In all countries there sometimes exists tension between social groups.

In your opinion, how much tension is there between each of the following groups in this country?

- Poor and rich people
- Management and workers
- Men and women
- Old people and young people
- Different racial and ethnic groups
- Different religious groups
- People with different sexual orientations

1 A lot of 2 Some 3 No Tension

Q27. Please look at the following statements about immigrants (i.e. people from abroad living in [COUNTRY]) and indicate where you would place your views on this scale. 98/99 Don't know/Refusal (DK/Ref)

- Immigrants are 1 not 10 well integrated in our society
- Immigrants 1 are a strain on 10 contribute to our welfare system
- Our country's culture is 1 undermined 10 enriched by immigrants

Q28. Please tell me how much you personally trust each of the following institutions. Please tell me on a scale of 1 to 10, where 1 means that you do not trust at all, and 10 means that you trust completely. 98/99 DK/Ref

- Parliament
- The legal system
- The press
- The police
- The government
- The local (municipal) authority

Q30. All things considered, how satisfied would you say you are with your life these days?
Please tell me on a scale of 1 to 10, where 1 means very dissatisfied and 10 means very satisfied. 98/99 DK/Ref

Q33. On average, thinking of people living outside your household how often do you have direct face-to-face contact with...

- a. Any of your children
- b. Your mother or father
- c. Any brother or other relative
- d. Any of your friends or neighbours

1 Every day or almost every day, 2 At least once a week, 3 One to three times a month, 4 Less often, 5 Never 6 (Don't have such relatives) 98/99 DK/Ref

Q36. In general, how often are you involved in any of the following activities outside of work?

- a. Caring for your children, grandchildren
- b. Cooking and / or housework
- c. Caring for elderly or disabled relatives

1 Every day, 2 Several days a week, 3 Once or twice a week, 4 Less often, 5 Never 98/99 DK/Ref

Q37. On average, how many hours per week are you involved in any of the following activities outside of paid work? (Same categories of relatives than Q36)
998/999 DK/Ref

Q40. Could you please tell me on a scale of 1 to 10 how satisfied you are with each of the following items, where 1 means you are very dissatisfied and 10 means you are very satisfied? 98/99 DK/Ref

- a. Your education
- b. Your present job (HH2D=1/2)
- c. Your present standard of living
- d. Your accommodation
- e. Your family life
- f. Your health
- g. Your social life
- h. Economic situation of COUNTRY

Q41. Taking all things together on a scale of 1 to 10, how happy would you say you are? Here 1 means you are very unhappy and 10 means you are very happy. 98/99 DK/Ref

Q42. (Q43) In general, would you say your health is...?

1 Very good, 2 Good, 3 Fair, 4 Bad, 5 Very bad, 98/99 DK/Ref

Q43. Do you have any chronic (long-standing) physical or mental health problem, illness or disability? By chronic (long-standing) I mean illnesses or health problems which have lasted, or are expected to last, for 6 months or more.

1 Yes, 2 No 98/99 DK/Ref

Q45. Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks.

- a. I have felt cheerful and in good spirits
- b. I have felt calm and relaxed
- c. I have felt active and vigorous
- d. I woke up feeling fresh and rested
- e. My daily life has been filled with things that interest me

1 All of the time, 2 Most of the time, 3 More than half of the time, 4 Less than half of the time, 5 Some of the time, 6 At no time 98/99 DK/Ref

Q50. Please think about the area where you live now—I mean the immediate neighbourhood of your home. Do you have major, moderate or no problems with the following?

- a. Noise
- b. Air quality
- c. Quality of drinking water
- d. Crime, violence or vandalism
- e. Litter or rubbish on the street
- f. Traffic congestion in your immediate neighbourhood

1 Major problems, 2 Moderate problems, 3 No problems, 98/99 DK/Ref

Q53. (Q56) In general, how would you rate the quality of each of the following public services in COUNTRY? Please tell me on a scale of one to 10, where one means very poor quality and 10 means very high quality. 11/12 DK/Ref

- a. Health services
- b. Education system
- c. Public transport
- d. Child care services
- e. Long term care services
- f. Social/municipal housing
- g. State pension system

Q57. Could you please evaluate the financial situation of your household? In comparison to most people in COUNTRY, would you say it is...?

1 Much worse, 2 Somewhat worse, 3 Neither worse nor better, 4 Somewhat better, 5 Much better 98/99 DK/Ref

Q58. A household may have different sources of income and more than one household member may contribute to it. Thinking of your household's total monthly income: is your household able to make ends meet....?

1 Very easily, 2 Easily, 3 Fairly easily, 4 With some difficulty, 5 With difficulty, 6 With great difficulty 98/99 DK/Ref

Q65. When you compare the financial situation of your household 12 months ago and now would you say it has become better, worse or remained the same?

1 Better, 2 The same, 3 Worse 97/98/99 NA/DK/Ref

Annex 5: Sample splitting in the EQLS and EU-SILC

Figure A5: Schematic overview of the sample splitting in EQLS

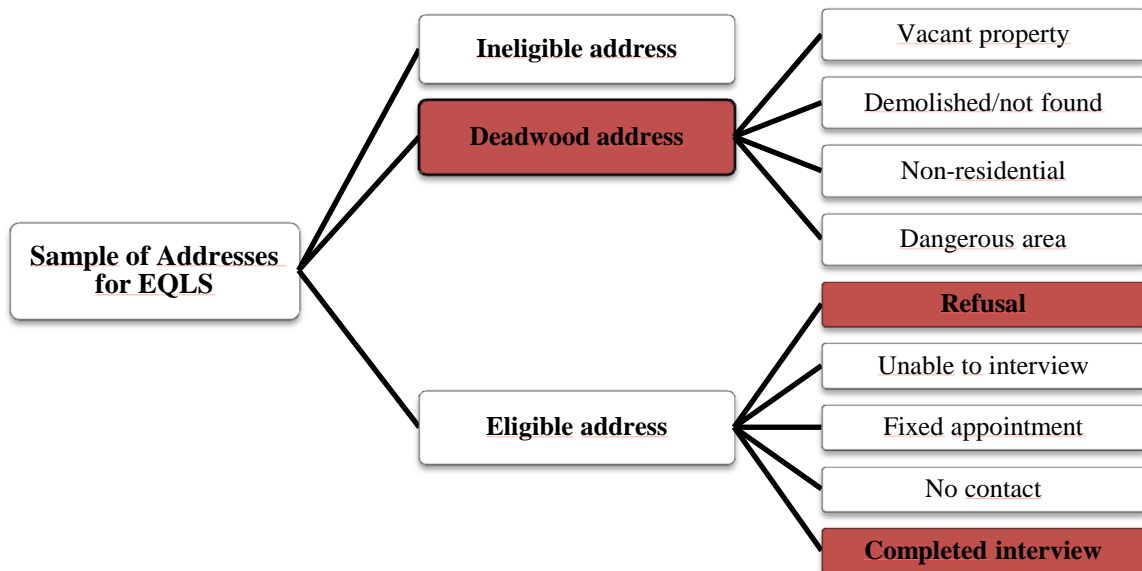
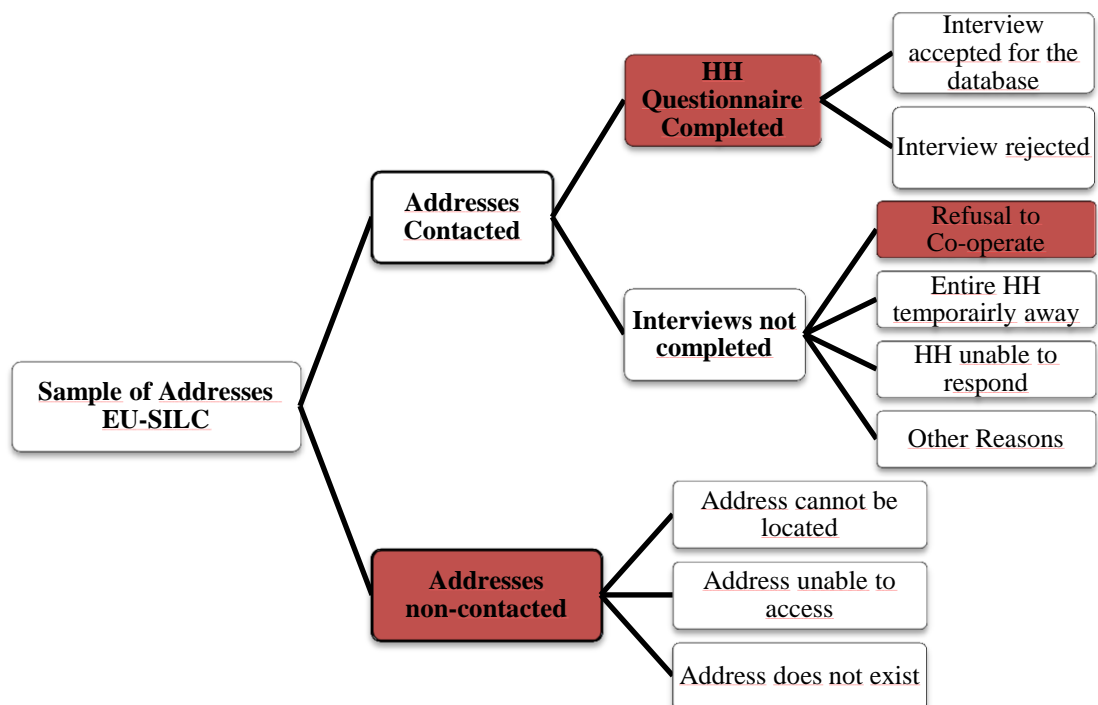


Figure A6: Schematic overview of the sample splitting in EU-SILC



Annex 6: Formulae for non-response indicators

Calculation of response rate in EU-SILC

The response rates in EU-SILC were calculated based on the following formula:

$$\text{Non-response rate (Nhr) SILC} = (1 - (Ra * Rh)) * 100$$

Where:

$$\begin{aligned} Ra &= \frac{\text{Number of addresses successfully contacted}}{\text{Number of valid addresses selected}} \\ &= \frac{\sum DB120 = 11}{\sum DB120 = all - \sum DB120 = 23} \end{aligned}$$

$$\begin{aligned} Rh &= \frac{\text{Number of household interviews completed and accepted for the database}}{\text{Number of eligible households at contacted addresses}} \\ &= \frac{\sum DB135 = 1}{\sum DB30 = all} \end{aligned}$$

Rh = proportion of complete household interviews accepted for the database

DB120 = record of contact at address

DB130 = household questionnaire result

DB135 = household questionnaire acceptance response.

Calculation of response rate in the EQLS

The response rates in the third EQLS were calculated based on the following formula:

$$RR = \frac{I}{I + P + R + NC + O}$$

Where:

RR = response rate

I = completed interviews

P = partial interviews

R = upfront refusals + refusals by the selected respondent

NC = non-contact

O = other, includes interviews deleted during the quality check.

Calculation of refusal rate in ESocS

$$\text{Refusal rate ESocS} = \frac{B + C}{A - (H + I + K + L + M)}$$

Where:

B = refusal by respondent

C = refusal by proxy

A = total number of issued sample units (addresses, households or individuals)

H = addresses not residential (institutions, business/industrial purpose)

I = address not occupied (not occupied, demolished, not yet built)

K = other ineligible address

L = respondent moved abroad

M = respondent deceased.

Calculation of response rate in ESocS

$$\text{Response rate ESocS} = \frac{V}{A - (H + I + K + L + M)}$$

Where:

V = records in data file

A = total number of issued sample units (addresses, households or individuals)

H = addresses not residential (institutions, business/industrial purpose)

I = address not occupied (not occupied, demolished, not yet built)

K = other ineligible address

L = respondent moved abroad

M = respondent deceased.

Annex 7: Design effects

Table A4: Design effects for selected questions, by country

Question	EU27																											Non-EU27						
	Enumerated random route													Random probability														Enumerated random route						IS
	BG	CY	DE	EE	EL	ES	FR	IT	LT	PT	RO	SK	AT	BE	CZ	DK	FI	HU	IE	LU	LV	MT	NL	PL	SE	SI	UK	HR	KO	ME	MK	RS	TR	
Question 11	1.5	1.8	1.3	1.5	1.2	1.3	1.1	1.4	1.2	1.2	1.2	1.7	1.5	1.4	1.2	1.5	1.3	1.7	1.2	0.7	1.3	1.3	1.2	1.6	1.1	1.3	1.4	1.4	1.8	1.7	1.1	1.6	1.1	1.6
Question 12a	1.3	1.3	1.5	1.3	1.2	1.2	1.2	1.6	1.3	1.6	1.4	1.5	1.5	1.2	1.4	1.5	1.2	1.7	1.1	0.7	1.4	1.2	1.1	1.6	1.1	1.4	1.3	1.1	2.2	1.8	1.5	1.3	1.4	1.4
Question 12b	1.6	1.4	1.4	1.3	1.2	1.2	1.1	1.6	1.3	1.4	1.3	1.3	1.5	1.4	1.7	1.6	1.3	1.3	0.8	1.2	1.1	1.1	1.4	1.1	1.2	1.3	1.4	1.9	1.9	1.7	1.5	1.3	1.8	
Question 12c	1.5	1.5	1.6	1.3	1.4	1.2	1.2	1.6	1.4	1.2	1.4	1.5	1.4	1.4	2.0	1.4	1.2	1.5	1.3	0.7	1.4	1.1	1.1	1.5	1.1	1.2	1.2	1.5	2.1	2.0	1.7	1.4	1.4	1.1
Question 19a	2.4	1.8	2.6	1.7	1.7	1.3	1.1	1.8	1.9	1.7	1.9	1.7	1.3	1.1	1.4	1.7	1.5	1.1	1.5	0.7	2.1	1.0	1.1	1.9	1.1	1.2	1.8	1.1	2.9	3.0	2.0	1.2	1.6	1.9
Question 19b	1.6	2.3	1.6	2.1	2.3	1.3	1.2	2.9	2.0	2.2	1.7	1.4	1.3	1.3	2.1	1.5	1.3	1.5	1.5	0.8	1.7	1.3	1.2	1.9	1.0	1.3	1.9	1.7	3.0	4.0	3.1	2.1	1.7	2.6
Question 19c	1.9	1.6	1.6	1.9	2.4	1.3	1.2	2.2	1.8	1.4	1.6	1.7	1.3	1.1	1.7	1.6	1.1	1.3	1.3	0.8	1.6	1.2	1.2	2.0	1.1	1.3	1.8	1.5	2.7	3.1	2.6	2.1	1.7	1.8
Question 19d	1.7	1.3	1.7	2.9	1.4	1.1	1.2	2.3	2.6	1.8	1.7	1.9	4.5	1.5	1.3	1.8	0.9	2.1	1.8	1.2	2.8	1.5	0.8	2.0	1.0	0.9	3.0	3.0	3.3	4.7	2.9	2.8	1.8	2.0
Question 19e	2.2	1.1	1.8	2.4	1.1	1.2	1.2	1.6	3.1	1.3	1.4	1.4	4.2	1.4	1.8	2.2	0.8	2.5	1.7	0.9	2.6	1.1		2.8	1.0	0.7	2.2	1.5	3.7	5.1	3.4	2.0	1.3	2.1
Question 19f	2.0	1.4	2.9	3.0	1.8	1.8	1.8	2.7	3.1	2.1	2.4	2.2	2.2	2.0	2.2	2.2	2.1	2.8	1.9	0.8	2.8	1.3	1.5	2.4	1.1	1.8	3.6	2.6	3.6	2.4	6.2	2.5	1.5	2.6
Question 21a	2.4	1.4	1.8	1.3	1.7	1.4	1.2	1.9	1.1	1.9	1.6	1.8	1.5	1.3	1.5	1.3	1.3	1.6	1.4	0.6	1.2	1.2	1.1	1.6	1.1	1.5	1.9	1.4	3.3	2.4	2.7	1.5	1.8	1.1
Question 21b	1.7	1.7	1.7	1.8	1.4	1.5	1.2	1.6	1.5	1.7	1.5	1.3	1.5	1.5	1.3	1.7	1.1	1.3	1.3	0.6	1.4	1.1	1.0	1.5	1.1	1.5	1.6	1.3	2.2	2.3	2.3	1.3	1.4	2.4
Question 21c	1.9	1.7	1.7	1.5	1.2	1.4	1.4	2.0	1.6	2.1	1.6	1.5	1.7	1.7	1.3	1.6	1.3	1.6	1.3	0.9	1.5	1.2	1.2	1.7	1.1	1.5	1.6	1.6	2.2	2.7	2.0	1.5	1.6	1.9
Question 21d	1.7	1.8	1.9	1.8	1.6	1.4	1.3	1.8	1.5	2.2	1.5	2.0	1.6	1.4	1.5	1.5	1.2	1.5	1.2	0.8	1.4	1.3	1.1	1.6	1.1	1.5	1.6	1.4	2.4	2.9	2.3	1.6	1.4	2.0
Question 23a	2.4	1.2	1.5	1.6	1.3	1.3	1.3	1.9	1.4	1.6	1.2	1.4	1.7	0.8	1.4	1.8	1.2	1.1	1.4	0.6	1.4	1.1	1.1	1.5	1.1	1.2	1.4	1.3	2.4	2.2	1.4	1.3	1.6	1.0
Question 23b	1.8	1.6	2.1	1.2	1.6	1.6	1.6	2.1	1.1	2.5	1.3	1.5	1.7	1.9	1.4	2.2	1.3	1.1	1.1	0.8	1.1	1.3	1.3	1.1	1.2	1.5	1.7	1.3	2.7	2.5	2.1	1.3	1.4	1.6
Question 23c	1.5	1.4	2.2	2.2	1.7	1.8	1.5	2.5	1.8	2.1	1.6	1.9	2.0	1.4	1.7	2.1	1.6	1.7	1.7	1.0	2.6	1.1	1.2	1.7	1.1	1.4	2.5	2.0	4.7	2.1	2.4	1.9	1.5	2.0
Question 23d	2.1	1.4	1.9	1.5	1.7	1.7	1.3	1.6	2.6	1.5	2.0	1.8	1.8	1.5	1.6	1.5	1.1	1.5	1.3	0.8	1.0	1.4	1.1	1.4	1.1	1.2	1.7	1.2	3.1	2.1	1.7	2.0	1.2	1.7
Question 25a	2.6	1.9	2.6	1.9	1.9	1.5	1.4	3.0	1.5	2.4	1.7	2.3	1.5	1.8	2.3	1.5	1.2	2.6	1.5	0.7	1.6	1.2	1.2	2.0	1.1	1.8	2.0	2.1	3.6	4.8	3.1	2.0	1.6	1.6
Question 25b	2.3	2.7	2.5	1.5	1.8	1.5	1.3	2.9	1.6	2.1	1.6	2.6	1.5	1.7	1.9	1.9	1.2	2.8	1.3	0.7	1.5	1.2	1.1	2.1	1.1	1.9	1.8	2.6	2.4	4.3	3.4	2.1	1.8	1.1
Question 25c	2.2	2.4	2.3	2.0	1.6	1.5	1.4	2.8	1.7	2.0	1.7	2.2	1.7	1.7	2.3	1.8	1.2	3.0	1.8	0.8	1.5	1.3	1.1	1.8	1.1	1.6	1.9	2.1	2.1	5.2	3.5	2.0	1.7	1.8
Question 25d	2.4	2.3	2.2	1.5	2.0	1.4	1.3	2.6	1.8	2.3	1.7	2.0	1.5	1.6	2.3	1.6	1.2	2.5	1.4	0.7	1.9	1.2	1.1	2.0	1.1	1.5	1.8	2.3	3.7	4.9	3.4	2.1	1.9	1.2
Question 25e	2.5	3.0	2.1	1.3	1.8	1.5	1.3	3.0	2.0	2.1	1.7	2.0	1.5	1.8	1.9	2.0	1.3	2.0	1.5	0.8	1.3	1.2	1.1	2.0	1.1	1.6	1.7	2.1	3.7	4.3	4.2	1.8	1.7	1.5
Question 25f	2.4	2.4	1.9	1.8	2.1	1.4	1.3	3.5	2.0	2.2	1.8	2.2	1.4	1.9	2.7	1.7	1.3	2.6	1.6	0.9	2.0	1.2	1.1	2.2	1.1	1.8	1.6	2.2	3.9	4.3	3.8	1.9	1.9	1.8
Question 25g	2.4	2.8	2.2	1.5	2.1	1.5	1.3	2.9	2.2	2.1	1.7	2.0	1.4	2.0	2.2	1.8	1.2	2.4	1.5	0.8	1.9	1.2	1.1	2.0	1.1	1.7	1.9	2.2	2.9	3.6	2.4	1.9	1.8	1.3
Question 27a	3.2	2.5	2.8	1.7	2.6	1.7	1.7	3.2	1.4	2.6	1.6	2.1	2.1	2.2	2.6	1.5	1.4	2.9	1.9	0.7	2.2	1.3	1.1	2.0	1.1	1.5	1.8	3.0	4.1	8.0	3.1	1.7	1.7	2.7
Question 27b	2.3	2.1	2.5	1.7	2.7	1.7	1.6	2.9	1.3	3.2	1.4	2.7	2.0	2.1	2.6	1.8	1.4	3.1	1.9	0.8	2.5	1.2	1.1	2.1	1.1	1.7	2.0	2.1	4.3	7.3	4.3	2.0	1.6	1.5
Question 27c	2.7	2.0	2.6	1.8	2.7	1.6	1.6	3.0	1.5	1.7	1.7	2.9	2.0	2.7	2.7	1.6	1.5	2.2	1.7	0.7	2.3	1.2	1.2	1.9	1.1	1.7	2.2	1.6	4.0	7.0	3.6	1.8	1.9	2.5
Question 28a	2.8	1.7	2.6	1.7	1.8	1.4	1.4	3.3	1.4	1.7	1.5	2.6	1.8	1.3	4.4	1.6	1.5	3.0	1.6	0.7	1.7	1.3	1.1	2.1	1.1	2.0	2.5	1.8	3.2	3.1	3.6	2.1	2.0	2.4
Question 28b	2.8	1.9	2.7	1.7	2.2	1.8	1.4	3.3	1.2	1.5	1.5	2.7	1.7	1.5	4.2	1.7	1.4	2.7	1.7	0.7	1.8	1.2	1.2	2.1	1.1	1.8	2.3	1.9	3.4	2.6	3.6	2.3	1.9	1.9
Question 28c	2.7	1.9	3.2	1.8	1.6	1.7	1.2	3.0	1.6	1.2	1.5	3.1	2.0	2.2	3.5	1.9	1.2	2.4	1.7	0.9	1.8	1.2	1.1	1.8	1.1	1.5	3.1	1.9	1.8	4.5	2.3	2.4	1.9	1.4
Question 28d	2.7	1.7	2.8	1.6	2.2	1.8	1.3	3.3	1.8	2.4	1.8	2.6	1.7	2.2	3.3	2.1	1.1	2.9	1.6	0.7	1.5	1.3	1.2	2.1	1.1	1.6	1.7	2.0	5.1	3.3	3.1	2.1	1.8	1.8
Question 28e	2.8	1.4	2.5	1.9	1.7	1.6	1.2	3.0	1.6	1.6	1.5	2.7	1.9	2.0	4.0	1.6	1.5	2.8	1.9	0.7	1.7	1.3	1.1	2.2	1.1	1.8	2.2	1.4	5.5	3.2	3.5	2.2	2.4	2.5
Question 28f	2.5	2.0	2.5	2.1	2.0	1.8	1.4	3.4	2.1	1.9	2.0	2.5	1.4	2.3	3.5	1.7	1.2	3.2	1.6	0.7	2.1	1.3	1.1	2.4	1.1	1.8	1.6	1.8	5.0	4.0	3.3	2.4	1.8	5.4
Question 30	2.0	1.7	2.5	1.9	3.0	1.5	1.5	2.6	2.1	1.7	1.4	2.1	1.9	1.2	1.6	1.9	1.4	1.7	1.5	0.7	1.7	1.4	1.1	1.9	1.1	1.3	1.7	1.4	2.9	4.6	2.4	1.5	1.5	1.5

Question	EU27																					Non-EU27												
	Enumerated random route												Random probability										Enumerated random route						RP					
	BG	CY	DE	EE	EL	ES	FR	IT	LT	PT	RO	SK	AT	BE	CZ	DK	FI	HU	IE	LU	LV	MT	NL	PL	SE	SI	UK	HR	KO	ME	MK	RS	TR	IS
Question 33a	1.2	1.7	1.8	1.6	1.6	1.4	1.4	1.7	1.7	1.8	1.5	1.9	1.5	1.4	1.2	1.5	1.4	1.5	1.6	0.7	1.8	1.4	1.1	1.7	1.1	1.6	1.7	1.2	1.9	1.6	1.7	1.2	1.4	1.6
Question 33b	1.7	1.4	1.7	1.7	1.6	1.4	1.4	1.8	1.6	1.4	1.8	1.7	1.4	1.7	1.5	1.8	1.3	1.4	1.8	0.9	1.8	1.1	1.2	1.7	1.1	1.7	1.9	1.2	1.9	2.3	1.6	1.4	1.4	2.1
Question 33c	1.7	1.5	1.7	1.6	1.5	1.2	1.3	1.7	1.7	1.4	1.4	1.6	1.5	1.5	1.6	1.5	1.1	1.4	1.3	0.9	1.7	1.3	1.1	1.6	1.1	1.6	1.6	1.6	2.2	3.9	1.6	1.4	1.4	2.0
Question 33d	1.5	1.4	1.7	1.4	1.8	1.3	1.2	1.9	1.7	1.8	1.5	1.7	1.4	1.4	1.7	1.8	1.2	1.9	1.3	0.8	1.5	1.2	1.1	1.8	1.1	1.8	1.7	1.5	2.4	3.7	3.0	2.1	1.3	1.4
Question 36a	1.5	1.4	1.3	1.5	1.4	1.2	1.3	1.7	1.5	1.7	1.4	1.5	1.3	1.3	1.3	1.5	1.2	1.3	1.3	0.7	1.4	1.2	1.0	1.4	1.0	1.4	1.3	1.2	2.5	2.3	1.9	1.5	1.5	1.8
Question 36b	1.7	1.8	1.8	1.5	1.4	1.5	1.3	1.6	1.4	1.3	1.6	2.0	1.5	1.3	1.3	1.6	1.3	1.6	1.3	0.8	1.8	1.1	1.2	1.6	1.1	1.3	1.7	1.6	2.3	2.2	1.8	1.4	1.5	1.2
Question 36c	2.0	1.4	1.5	1.4	1.7	1.3	1.4	1.7	2.0	1.8	1.5	1.7	1.2	1.3	1.3	1.6	1.2	1.6	1.2	0.8	1.4	1.2	1.1	1.6	1.0	1.5	1.6	1.3	2.6	2.3	2.1	1.4	1.5	2.2
Question 37	1.3	1.3	1.6	1.1	1.2	1.1	1.0	1.2	1.1	1.2	0.9	1.0	1.4	0.9	1.0	1.3	0.6	0.9	1.1	0.6	1.2	1.3	1.5	1.4	0.9	1.1	1.2	1.1	2.7	1.1	2.3	1.1	1.2	1.6
Question 40a	1.8	1.8	2.1	1.8	1.4	1.5	1.4	2.3	1.6	2.4	1.9	2.6	1.3	1.5	1.7	2.6	1.2	1.9	1.7	0.8	1.9	1.3	1.2	1.7	1.1	1.6	1.9	1.8	3.9	1.7	2.8	1.8	1.6	2.3
Question 40b	1.4	1.2	1.5	1.4	1.4	1.4	1.1	1.7	1.1	1.3	1.7	1.6	1.5	1.1	1.3	1.3	1.2	1.7	1.1	0.7	0.7	1.2	1.1	1.4	1.1	1.4	1.5	1.2	2.6	1.3	1.9	1.4	1.2	2.4
Question 40c	1.8	1.5	2.4	2.0	2.0	1.6	1.4	2.7	2.4	2.0	1.4	2.0	1.8	1.6	1.6	2.0	1.3	1.7	2.0	0.8	1.2	1.2	1.1	1.9	1.1	1.7	2.2	1.6	3.7	4.4	2.8	1.7	1.7	1.3
Question 40d	2.4	1.9	2.7	2.0	2.2	1.9	1.4	3.0	2.4	2.3	1.6	2.6	1.9	1.7	1.5	1.7	1.3	2.2	1.6	0.6	1.4	1.2	1.1	2.3	1.1	1.9	2.5	1.7	3.5	2.8	4.0	1.6	1.7	1.6
Question 40e	2.0	1.6	2.1	2.2	1.5	1.7	1.6	3.0	1.8	1.9	1.4	2.6	2.1	1.5	1.4	2.0	1.2	1.8	1.8	0.9	1.5	1.7	1.1	2.0	1.2	1.7	1.5	1.3	4.0	2.1	3.6	1.4	1.7	1.4
Question 40f	1.5	2.2	1.9	1.7	0.9	1.4	1.3	2.4	1.6	1.7	1.3	2.0	1.4	1.6	1.6	1.5	1.1	1.6	1.4	0.7	1.3	1.3	1.1	1.6	1.1	1.6	1.7	1.3	4.2	2.4	2.9	1.8	1.5	1.5
Question 40g	2.3	1.8	1.9	1.3	1.8	1.6	1.3	2.3	2.6	2.2	1.7	2.7	1.9	1.7	1.7	1.6	1.3	2.0	1.8	0.6	1.4	1.4	1.1	1.8	1.1	1.5	1.8	1.7	3.2	2.6	3.7	2.1	1.6	1.3
Question 40h	2.3	2.4	2.2	2.4	2.5	2.1	1.5	3.6	1.9	2.9	2.2	2.4	1.8	2.0	3.9	1.8	1.5	3.4	1.8	0.7	1.9	1.3	1.1	2.0	1.1	1.8	1.9	1.7	3.9	5.4	3.6	2.1	1.9	1.6
Question 41	2.1	1.9	2.0	1.7	2.1	1.3	1.3	2.3	1.9	1.7	1.4	2.2	2.0	1.3	1.7	1.8	1.4	2.1	2.0	0.6	1.4	1.4	1.1	1.8	1.1	1.5	1.8	1.2	3.8	3.0	2.2	1.6	1.8	1.9
Question 42	1.3	1.6	1.5	1.5	1.4	1.3	1.2	1.9	1.2	1.3	1.4	1.5	1.3	1.3	1.3	1.5	1.2	1.3	1.3	0.7	1.4	1.4	1.1	1.5	1.1	1.4	1.4	1.2	2.2	1.9	1.6	1.6	1.4	1.4
Question 43	1.3	1.6	2.0	1.6	1.2	1.2	1.2	2.5	1.4	1.3	1.5	0.9	1.3	1.4	1.2	1.6	1.2	1.2	1.6	0.8	2.0	1.3	1.1	1.6	1.1	1.5	1.6	1.5	1.8	2.3	1.8	1.6	1.4	1.6
Question 45a	1.5	1.8	1.5	1.5	1.6	1.3	1.2	1.7	1.4	1.7	1.5	1.9	1.6	1.3	1.3	1.9	1.3	1.5	1.5	0.7	1.4	1.3	1.1	1.8	1.1	1.3	1.6	1.2	2.5	2.2	1.8	1.3	1.6	1.6
Question 45b	1.6	1.7	1.7	1.3	1.7	1.3	1.3	1.7	1.4	1.6	1.6	1.7	1.7	1.5	1.4	1.6	1.2	1.7	1.5	0.8	1.6	1.3	1.1	1.8	1.1	1.5	1.5	1.2	2.5	1.9	1.7	1.3	1.6	1.7
Question 45c	1.2	1.8	1.5	1.4	1.7	1.2	1.3	1.8	1.4	1.5	1.4	1.6	1.5	1.5	1.4	1.6	1.2	1.4	1.6	0.7	1.3	1.2	1.1	1.7	1.1	1.4	1.5	1.2	2.7	2.0	1.8	1.3	1.6	1.4
Question 45d	1.6	1.7	1.6	1.5	1.6	1.3	1.3	1.7	1.8	1.5	1.4	1.6	1.6	1.5	1.5	1.7	1.2	1.6	1.6	0.7	1.5	1.2	1.1	1.7	1.1	1.4	1.5	1.5	2.6	2.7	2.0	1.3	1.6	1.8
Question 45e	1.6	1.7	1.8	1.6	1.7	1.3	1.3	1.7	1.5	1.4	1.6	1.7	1.5	1.3	1.4	1.7	1.3	1.7	1.5	0.8	1.6	1.2	1.1	1.8	1.1	1.4	1.4	1.4	3.3	2.9	1.8	1.5	1.5	1.5
Question 50a	2.6	2.4	2.7	2.0	3.0	1.7	1.5	3.3	2.3	2.5	2.0	2.0	1.7	2.2	2.1	2.9	1.1	2.2	1.6	0.9	1.4	1.2	1.1	1.9	1.1	1.6	1.9	2.5	4.1	4.1	3.6	2.0	1.9	3.7
Question 50b	3.2	2.3	3.0	2.1	3.7	2.0	1.6	4.0	2.2	2.1	2.0	2.1	1.7	2.3	2.0	1.6	1.2	2.7	2.1	0.8	1.5	1.2	1.1	2.0	1.1	1.7	2.1	2.4	4.8	7.8	3.5	1.9	2.1	3.5
Question 50c	3.1	3.1	2.5	1.8	4.1	2.0	1.4	3.9	2.2	1.7	1.9	2.8	1.8	1.8	2.3	1.5	1.1	3.5	2.3	0.8	1.7	1.3	1.1	2.0	1.0	1.9	1.6	1.7	5.0	6.2	3.3	2.5	2.0	1.6
Question 50d	2.5	2.2	2.7	1.8	3.1	1.7	1.5	4.1	2.1	2.8	2.2	2.8	2.0	2.4	2.4	2.0	1.2	2.7	2.3	0.7	1.7	1.3	1.1	1.9	1.1	1.9	2.4	2.8	4.6	5.3	3.9	1.3	1.8	1.6
Question 50e	2.4	2.3	3.0	1.9	3.5	1.5	1.7	3.7	2.7	1.7	2.0	2.8	1.8	1.9	2.2	1.8	1.6	2.6	2.3	0.7	1.9	1.3	1.1	2.0	1.1	1.9	2.6	1.7	4.1	4.0	3.2	1.8	1.9	2.3
Question 50f	2.3	1.9	2.8	2.0	3.3	1.7	1.5	3.7	2.1	2.6	2.2	2.4	1.9	3.1	2.5	3.4	1.8	2.6	1.8	1.0	1.7	1.2	1.2	2.0	1.0	1.9	2.9	2.6	3.9	3.7	3.2	1.9	1.8	2.7
Question 53a	3.1	1.9	2.8	1.6	2.1	2.0	1.6	3.3	2.4	2.1	1.7	2.3	2.0	1.8	3.1	1.9	1.1	3.2	1.8	0.7	2.4	1.3	1.1	1.8	1.1	1.8	1.5	1.7	5.4	3.8	3.1	2.1	1.5	2.1
Question 53b	2.8	1.6	2.2	1.9	2.4	1.7	1.3	3.2	1.5	1.8	1.8	2.1	1.7	1.8	3.1	1.5	1.0	3.2	1.5	0.8	2.5	1.2	1.1	1.9	1.1	2.0	1.6	2.1	5.7	4.1	3.4	2.1	1.9	2.0
Question 53c	3.3	1.9	3.2	1.8	3.1	2.0	1.4	4.0	2.6	3.2	1.9	3.0	1.5	1.9	2.6	2.0	1.5	2.4	2.3	0.7	2.9	1.3	1.2	2.7	1.1	2.0	2.3	2.4	4.8	4.5	4.2	2.4	1.8	3.3
Question 53d	3.0	1.8	2.4	1.4	2.6	2.0	1.2	3.4	2.1	1.8	1.7	2.4	2.0	2.4	2.3	1.7	1.2	2.8	1.8	0.8	2.3	1.3	1.1	2.2	1.1	1.8	1.4	2.2	4.7	3.7	3.3	2.0	1.6	2.4
Question 53e	2.5	1.6	2.7	1.6	2.7	1.8	1.4	3.4	2.3	2.0	1.6	2.3	1.9	1.9	2.3	1.5	1.4	2.2	2.2	0.8	1.7	1.3	1.1	1.9	1.1	1.8	1.5	2.8	4.0	5.5	3.9	1.9	1.4	1.7
Question 53f	2.8	1.3	2.2	1.9	3.2	1.6	1.5	4.1	2.1	1.7	1.8	2.8	2.2	2.0	2.2	1.9	1.3	3.1	1.9	0.9	2.3	1.4	1.1	2.2	1.1	1.8	1.8	2.9	3.2	6.8	3.9	2.3	1.8	1.7
Question 53g	2.8	2.6	2.8	1.8	2.5	2.0	1.3	3.7	2.0	2.1	2.0	2.4	2.0	1.4	3.0	1.7	1.2	3.0	1.6	0.8	2.3	1.3	1.2	2.2	1.1									

Annex 8: Standard error

Table A5: Standard error (%) for selected questions, by country

	EU27																				Non-EU27														
	Enumerated random route												Random probability (RP)											Enumerated random route						RP					
Question	BG	CY	DE	EE	EL	ES	FR	IT	LT	PT	RO	SK	AT	BE	CZ	DK	FI	HU	IE	LU	LV	MT	NL	PL	SE	SI	UK	HR	KO	ME	MK	RS	TR	IS	
Question 11																																			
Fairly well	3.1	3.5	16	3.0	2.7	2.4	1.5	1.9	2.4	2.9	2.4	2.8	2.5	2.8	2.3	2.5	2.6	3.2	2.4	1.8	2.8	2.5	2.3	2.1	2.2	2.9	1.8	3.0	3.6	3.5	2.7	3.0	2.3	2.5	
Not at all well	1.9	2.0	0.6	1.2	2.1	1.2	0.8	0.7	1.0	1.5	0.8	1.1	0.7	1.2	0.8	0.9	0.8	0.8	1.3	0.7	1.2	1.3	0.6	1.0	0.6	1.1	0.9	1.7	0.9	1.1	0.9	1.7	1.5	0.8	
Not very well	2.1	2.3	1.2	2.2	2.2	1.9	1.1	1.5	1.6	2.1	1.5	1.7	1.7	1.6	1.8	1.1	1.8	3.0	1.6	1.1	2.2	2.0	1.3	1.4	1.3	2.3	1.2	2.0	2.9	2.9	2.3	3.0	1.9	1.7	
Very well	2.2	3.1	1.3	2.7	2.1	1.8	1.6	1.3	2.2	1.9	2.1	2.6	2.2	2.8	2.0	2.7	2.4	2.1	2.4	1.8	2.0	2.0	2.2	1.7	2.2	2.0	1.9	2.7	2.0	2.3	1.8	2.6	1.4	2.4	
Question 12a																																			
Less often/rarely	2.3	1.6	1.5	2.4	2.0	1.5	1.1	1.7	2.1	2.5	2.0	2.1	2.1	2.4	1.6	2.4	2.2	2.4	1.7	1.7	1.5	1.9	2.1	1.2	1.8	2.3	1.4	1.3	2.3	3.2	2.3	1.8	1.8	1.6	
Never	1.4	1.5	1.2	1.5	1.1	1.4	1.1	1.5	2.1	3.0	1.4	2.3	1.6	1.9	1.2	2.2	1.5	1.6	1.6	1.1	1.6	1.3	1.8	1.3	1.3	1.9	1.3	1.6	1.5	0.7	1.1	1.0	1.0	1.9	
Several times a month	2.4	2.6	1.6	2.6	2.7	1.8	1.6	1.4	2.3	2.6	2.4	2.5	2.7	1.9	2.4	2.3	2.2	2.8	2.3	1.7	2.6	1.9	2.0	2.0	2.1	2.5	1.5	2.3	2.7	3.4	3.1	2.6	2.4	2.6	
Several times a week	3.1	2.9	1.2	2.9	3.0	2.2	1.5	1.6	1.9	2.4	2.1	2.3	1.6	2.2	2.4	1.7	1.8	2.7	2.3	1.6	2.9	2.5	1.5	1.7	1.8	2.2	1.6	2.6	3.7	3.4	2.7	2.9	2.5	1.2	
Several times a year	1.6	1.4	1.4	1.3	1.8	1.1	1.2	1.7	2.1	1.7	1.5	1.8	1.8	1.5	1.9	1.9	1.7	1.9	1.5	1.3	1.8	1.6	1.6	1.6	1.6	2.3	0.9	1.7	2.6	1.9	2.0	1.6	1.7	1.4	
Question 12b																																			
Less often/rarely	2.5	2.2	1.5	2.3	2.4	1.8	1.3	2.0	1.7	2.6	2.1	2.0	2.3	2.3	2.3	2.9	2.5	2.2	2.4	1.6	1.6	2.2	2.2	1.3	2.1	2.1	1.6	2.0	2.5	3.2	2.7	2.4	1.7	2.9	
Never	2.8	2.5	1.6	2.8	2.2	2.0	1.5	2.0	2.8	3.1	2.3	2.4	2.5	2.7	2.3	3.3	2.7	2.7	2.2	2.0	2.1	2.3	2.2	1.7	2.0	2.6	1.7	2.1	2.1	2.3	1.9	1.9	1.6	2.3	
Several times a month	2.3	2.2	1.4	2.2	2.1	1.8	1.3	1.2	2.2	2.2	2.0	2.1	1.9	2.0	2.2	1.7	1.7	2.1	1.9	1.4	2.3	1.9	1.5	1.8	1.7	2.2	1.2	2.7	2.8	3.8	2.8	2.8	2.6	1.9	
Several times a week	2.4	2.5	0.8	2.0	2.5	1.7	0.9	1.0	1.8	1.8	1.8	1.6	1.0	2.0	1.8	0.9	0.8	1.7	1.6	0.9	2.5	1.8	1.1	1.3	1.1	1.8	1.2	2.4	2.8	2.0	2.3	2.5	2.2	1.0	
Several times a year	2.3	1.7	1.2	1.9	1.8	1.4	1.0	1.3	1.7	2.0	1.4	2.0	2.0	1.8	2.0	1.3	1.6	1.9	1.4	1.3	1.7	1.6	1.8	1.6	1.6	2.0	1.1	2.2	2.3	2.4	2.8	2.4	1.6	1.8	
Question 12c																																			
Less often/rarely	2.4	2.3	1.5	2.7	2.2	1.9	1.4	2.0	2.1	2.6	2.3	2.5	2.2	2.3	2.4	2.1	2.5	2.5	2.3	1.6	1.9	2.4	2.1	1.6	2.1	2.7	1.6	2.5	3.1	3.8	2.7	2.7	2.1	1.4	
Never	3.3	3.5	1.9	2.9	3.0	2.4	1.7	2.3	2.7	2.9	2.8	2.8	2.7	2.8	2.9	2.6	2.7	2.9	2.6	2.1	3.1	2.4	2.3	2.1	2.2	2.9	1.8	3.4	3.1	3.4	3.2	2.5	2.4	2.0	
Several times a month	2.2	1.6	1.0	1.5	1.8	1.5	1.0	0.9	1.4	2.0	1.5	1.8	1.6	1.7	2.2	1.1	1.2	2.3	1.4	1.0	1.9	1.5	0.9	1.7	0.9	1.9	1.0	1.8	2.9	3.3	2.2	2.7	2.1	1.1	
Several times a week	1.5	1.9	0.4	0.9	2.1	1.1	0.5	0.6	1.1	1.1	1.1	1.2	0.7	1.2	1.3	0.5	0.4	1.3	1.5	0.5	1.7	1.2	0.6	0.9	0.8	0.8	0.8	1.4	2.2	1.5	1.8	1.5	1.8	0.5	
Several times a year	1.6	1.7	1.1	1.8	2.0	1.5	1.0	1.2	1.7	1.7	1.2	2.0	1.6	1.5	2.0	1.5	1.4	1.8	1.4	1.0	1.7	1.2	1.1	1.6	1.2	1.7	1.0	2.3	1.9	2.3	2.5	2.1	1.9	1.2	
Question 19a																																			
No	1.9	1.7	0.9	1.5	1.6	0.9	0.9	1.0	1.6	1.5	1.2	1.2	1.1	1.2	1.4	1.4	1.3	1.1	1.3	0.9	2.0	1.0	1.1	1.2	1.2	1.1	1.1	1.2	2.4	2.1	1.7	1.3	1.3	1.6	
Yes	1.9	1.7	0.9	1.5	1.6	0.9	0.9	1.0	1.6	1.5	1.2	1.2	1.1	1.2	1.4	1.4	1.3	1.1	1.3	0.9	2.0	1.0	1.1	1.2	1.2	1.1	1.1	1.2	2.4	2.1	1.7	1.3	1.3	1.6	
Question 19b																																			
No	1.5	1.3	0.5	1.8	2.1	0.6	0.7	1.1	1.5	1.1	1.0	0.9	0.6	1.0	0.9	0.9	0.8	1.4	0.8	0.7	1.8	1.3	0.9	1.0	0.6	1.0	0.8	1.4	2.7	2.1	2.1	1.7	1.3	1.6	
Yes	1.5	1.3	0.5	1.8	2.1	0.6	0.7	1.1	1.5	1.1	1.0	0.9	0.6	1.0	0.9	0.9	0.8	1.4	0.8	0.7	1.8	1.3	0.9	1.0	0.6	1.0	0.8	1.4	2.7	2.1	2.1	1.7	1.3	1.6	
Question 19c																																			
No	1.8	1.7	0.6	1.8	1.9	0.9	0.8	0.9	1.3	1.4	1.1	1.0	0.8	1.2	1.3	1.2	1.0	1.3	1.0	0.8	1.9	1.3	1.1	1.0	0.7	1.2	1.0	1.4	2.0	1.9	2.0	1.7	1.3	1.5	
Yes	1.8	1.7	0.6	1.8	1.9	0.9	0.8	0.9	1.3	1.4	1.1	1.0	0.8	1.2	1.3	1.2	1.0	1.3	1.0	0.8	1.9	1.3	1.1	1.0	0.7	1.2	1.0	1.4	2.0	1.9	2.0	1.7	1.3	1.5	
Question 19d																																			
No	1.6	0.3	0.3	1.8	0.4	0.2	0.2	0.3	1.7	0.7	1.4	0.8	0.8	0.4	0.2	0.2	0.3	0.9	0.4	0.5	2.0	0.6	0.1	0.6	0.6	0.2	0.4	0.7	1.8	0.9	1.0	1.0	0.9	0.5	
Yes	1.6	0.3	0.3	1.8	0.4	0.2	0.2	0.3	1.7	0.7	1.4	0.8	0.8	0.4	0.2	0.2	0.3	0.9	0.4	0.5	2.0	0.6	0.1	0.6	0.6	0.2	0.4	0.7	1.8	0.9	1.0	1.0	0.9	0.5	
Question 19e																																			
No	1.3	0.2	0.3	1.8	0.4	0.3	0.2	0.3	1.8	0.5	1.3	0.6	0.8	0.5	0.5	0.3	0.4	1.1	0.5	0.4	2.1	0.4			0.7	0.6	0.2	0.4	0.5	1.8	0.9	1.0	0.8	0.8	0.5
Yes	1.3	0.2	0.3	1.8	0.4	0.3	0.2	0.3	1.8	0.5	1.3	0.6	0.8	0.5	0.5	0.3	0.4	1.1	0.5	0.4	2.1	0.4			0.7	0.6	0.2	0.4	0.5	1.8	0.9	1.0	0.8	0.8	0.5
Question 19f																																			
No	0.9	0.7	1.1	2.3	1.2	1.4	1.1	1.1	1.5	1.7	1.3	1.4	1.8	1.6	1.9	1.1	1.2	1.7	1.0	1.0	2.1	1.0	0.8	1.2	1.0	0.9	1.2	1.4	2.4	1.3	1.7	1.5	1.1	1.1	
Yes	0.9	0.7	1.1	2.3	1.2	1.4	1.1	1.1	1.5	1.7	1.3	1.4	1.8	1.6	1.9	1.1	1.2	1.7	1.0	1.0	2.1	1.0	0.8	1.2	1.0	0.9	1.2	1.4	2.4	1.3	1.7	1.5	1.1	1.1	

	EU27																								Non-EU27									
	Enumerated random route												Random probability (RP)												Enumerated random route						RP			
Question	BG	CY	DE	EE	EL	ES	FR	IT	LT	PT	RO	SK	AT	BE	CZ	DK	FI	HU	IE	LU	LV	MT	NL	PL	SE	SI	UK	HR	KO	ME	MK	RS	TR	IS
Question 21a																																		
At least once a week	0.8	12	0.6	0.6	16	0.8	0.5	1.2	0.8	1.8	1.2	1.9	1.4	0.8	0.9	0.5	0.6	0.9	16	0.6	0.7	1.7	1.0	1.4	0.6	1.2	0.8	1.4	2.3	1.0	1.5	0.8	0.9	0.6
Every day or almost every day	0.5	0.6	0.2	0.3	0.5	0.3	0.2	0.4	0.2	0.8	0.3	0.8	0.3	0.2	0.2	0.2	0.3	0.3	0.7	0.2	0.2	1.4	0.3	0.4	0.2	0.4	0.5	0.5	2.4	0.2	1.0	0.1	0.8	0.1
Less often	2.7	1.7	1.2	1.8	2.1	1.6	0.9	1.3	1.6	2.0	1.7	2.2	1.9	1.5	1.8	1.6	1.8	2.0	1.6	1.1	1.8	1.2	1.3	1.2	1.6	2.0	1.1	1.8	3.0	2.6	2.6	2.1	1.4	1.6
Never	3.1	1.9	1.4	2.1	1.5	1.8	1.1	1.6	1.5	2.1	1.2	2.2	2.0	1.9	2.1	1.6	1.8	2.3	1.8	1.2	1.8	1.5	1.6	0.8	1.6	2.0	1.5	1.8	2.0	3.1	1.9	2.0	1.4	1.7
One to three times a month	0.9	1.4	0.7	0.7	1.6	0.8	0.5	0.8	1.1	1.3	1.2	1.0	1.2	0.7	0.6	0.8	0.8	1.0	1.1	0.6	1.2	0.7	0.9	1.0	0.7	1.1	0.5	1.4	1.1	1.6	2.0	1.2	1.2	0.7
Question 21b																																		
At least once a week	1.4	1.3	0.8	1.1	1.1	0.9	0.8	0.9	0.9	1.0	0.8	1.2	1.3	1.4	1.3	1.0	1.0	1.2	1.2	0.8	1.3	1.0	1.0	0.8	0.8	1.2	0.8	1.0	1.6	1.6	1.2	1.0	0.8	1.7
Every day or almost every day	2.0	2.1	1.3	2.2	1.9	1.5	1.2	1.4	1.9	2.1	1.5	1.8	2.0	1.9	2.0	1.9	1.6	1.8	2.1	1.3	2.0	1.8	1.5	1.3	1.4	2.1	1.4	2.0	2.4	2.3	2.2	1.8	1.1	2.0
Less often	0.9	0.7	0.4	1.1	0.7	1.0	0.4	0.5	0.8	1.2	0.9	0.7	1.1	0.5	0.6	0.8	0.5	0.8	0.6	0.5	0.6	0.7	0.5	0.7	0.5	0.8	0.4	0.8	1.3	1.6	0.9	0.9	0.8	0.6
Never	2.1	2.3	1.1	1.7	2.0	1.5	1.0	1.4	1.8	1.9	1.6	1.8	1.8	1.7	1.9	1.5	1.3	1.7	1.6	1.0	1.7	1.7	1.1	1.3	1.1	1.8	1.3	1.9	1.9	2.7	2.2	1.9	1.3	1.2
One to three times a month	0.6	0.5	0.3	0.7	0.5	0.5	0.3	0.5	0.6	0.8	0.4	0.6	0.9	0.6	0.8	0.6	0.3	0.5	0.5	0.2	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.5	1.4	0.9	1.5	0.5	0.5	0.4
Question 21c																																		
At least once a week	1.2	1.2	1.0	1.6	1.2	1.2	1.1	1.2	1.5	1.9	1.1	1.6	1.9	1.8	1.7	2.0	1.6	1.2	1.6	1.4	1.3	1.3	1.7	1.0	1.6	1.6	1.2	1.3	1.8	1.4	1.4	1.3	0.8	1.7
Every day or almost every day	0.9	1.7	0.9	1.7	1.1	1.1	0.9	0.8	1.3	1.0	0.6	1.2	1.7	1.4	0.9	1.7	1.9	1.2	1.7	1.1	1.2	1.4	1.4	0.7	1.6	1.4	1.0	1.5	1.0	1.2	1.0	1.0	0.8	1.9
Less often	1.6	1.4	0.7	1.4	1.0	1.1	0.8	1.0	1.2	1.4	1.3	1.6	1.2	1.4	1.3	1.3	1.2	1.3	1.1	0.9	1.5	1.0	1.0	1.0	1.0	1.5	0.8	1.4	1.9	2.4	1.7	1.6	1.0	1.5
Never	2.0	2.0	1.1	1.9	1.7	1.5	1.2	1.5	1.9	2.6	1.7	1.8	1.9	2.0	2.0	1.7	0.8	2.0	1.5	1.4	1.9	1.8	1.4	1.5	1.0	1.9	1.5	2.2	2.7	3.6	2.6	2.1	1.5	1.5
One to three times a month	0.8	0.9	0.7	1.0	0.8	0.9	0.7	0.7	0.9	1.2	0.7	1.1	1.2	1.0	1.0	1.0	1.1	1.2	0.8	0.7	1.0	0.7	0.8	0.8	0.9	1.1	0.7	0.9	1.4	1.1	1.3	0.9	0.7	1.3
Question 21d																																		
At least once a week	0.5	1.0	0.9	1.5	0.7	0.9	0.9	0.7	0.9	1.1	0.5	1.1	1.6	1.4	1.2	1.6	1.5	0.9	1.6	0.9	0.8	1.0	1.5	0.5	1.5	1.2	1.1	1.0	1.3	0.9	0.8	1.0	0.5	1.6
Every day or almost every day	0.3	0.6	0.3	0.3	0.8	0.4	0.5	0.4	0.4	0.8	0.3	0.3	0.7	0.7	0.3	0.9	0.7	0.5	0.7	0.6	0.3	0.8	0.7	0.2	0.8	0.4	0.5	0.9	0.9	0.5	0.7	0.6	0.3	1.0
Less often	1.3	1.4	0.9	1.8	1.1	1.1	0.8	1.0	1.3	1.7	1.0	2.0	1.4	1.1	1.9	1.5	1.6	1.3	1.4	1.0	1.1	1.0	1.2	1.0	1.4	1.6	0.9	1.2	1.9	2.8	1.7	1.4	0.9	1.8
Never	1.6	1.9	1.4	2.3	1.7	1.5	1.2	1.5	1.7	2.4	1.2	2.5	2.0	1.9	2.3	1.8	1.6	1.9	1.8	1.4	1.4	1.6	1.6	1.3	1.5	2.2	1.5	1.8	2.9	3.4	2.3	2.0	1.2	2.2
One to three times a month	0.6	1.1	0.9	1.5	0.9	0.9	0.6	0.7	0.9	1.0	0.4	1.3	1.3	1.2	1.0	1.6	1.3	0.9	0.9	0.7	0.9	0.7	1.1	0.8	1.3	1.2	0.9	1.1	1.3	0.7	1.2	0.8	0.5	1.7
Question 23a																																		
No	1.3	1.1	0.6	0.8	0.6	0.8	0.7	0.9	0.8	0.8	0.7	0.7	1.2	0.7	0.9	1.6	1.1	0.4	1.1	0.9	0.8	0.7	0.8	0.6	1.4	0.7	0.6	1.0	1.8	1.2	1.2	1.2	0.6	1.4
Yes	1.3	1.1	0.6	0.8	0.6	0.8	0.7	0.9	0.8	0.8	0.7	0.7	1.2	0.7	0.9	1.6	1.1	0.4	1.1	0.9	0.8	0.7	0.8	0.6	1.4	0.7	0.6	1.0	1.8	1.2	1.2	1.2	0.6	1.4
Question 23b																																		
No	0.5	1.3	0.6	0.5	1.4	1.0	0.9	0.8	0.4	0.9	0.5	0.6	1.1	0.8	0.8	0.8	0.5	0.3	0.8	0.8	0.5	0.6	0.7	0.2	0.9	0.5	0.5	0.8	1.9	1.3	1.3	0.6	0.5	1.2
Yes	0.5	1.3	0.6	0.5	1.4	1.0	0.9	0.8	0.4	0.9	0.5	0.6	1.1	0.8	0.8	0.8	0.5	0.3	0.8	0.8	0.5	0.6	0.7	0.2	0.9	0.5	0.5	0.8	1.9	1.3	1.3	0.6	0.5	1.2
Question 23c																																		
No	0.6	0.9	0.9	1.2	0.9	1.1	1.1	1.1	1.1	1.2	0.8	1.5	1.7	1.5	1.5	1.9	1.6	0.9	1.5	1.3	1.4	0.9	1.5	0.7	1.6	1.0	1.5	1.9	3.0	1.3	1.2	1.4	0.4	2.2
Yes	0.6	0.9	0.9	1.2	0.9	1.1	1.1	1.1	1.1	1.2	0.8	1.5	1.7	1.5	1.5	1.9	1.6	0.9	1.5	1.3	1.4	0.9	1.5	0.7	1.6	1.0	1.5	1.9	3.0	1.3	1.2	1.4	0.4	2.2
Question 23d																																		
No	0.9	0.9	0.7	0.8	0.9	0.9	0.7	0.5	1.0	0.7	0.7	0.8	1.3	1.0	0.8	1.2	1.0	0.7	1.1	1.0	0.8	0.9	0.9	0.6	1.2	0.5	0.8	0.8	2.0	0.8	1.2	0.7	0.4	1.4
Yes	0.9	0.9	0.7	0.8	0.9	0.9	0.7	0.5	1.0	0.7	0.7	0.8	1.3	1.0	0.8	1.2	1.0	0.7	1.1	1.0	0.8	0.9	0.9	0.6	1.2	0.5	0.8	0.8	2.0	0.8	1.2	0.7	0.4	1.4
Question 25a																																		
A lot of tension	2.1	2.1	1.3	1.9	2.2	1.5	1.2	1.7	1.9	2.3	1.7	2.3	1.7	2.0	2.6	0.7	1.3	2.5	1.7	1.3	2.0	1.6	1.4	1.5	1.4	2.0	1.3	2.5	2.7	3.8	2.6	2.4	1.5	1.6
No tension	2.3	1.9	1.2	1.6	1.3	1.4	0.6	1.5	0.9	1.9	1.0	1.6	1.1	1.6	1.2	2.0	1.2	1.0	1.4	1.1	1.4	1.4	1.2	1.0	1.0	0.9	1.2	1.2	2.7	2.4	2.5	1.3	1.1	1.1
Some tension	2.5	2.2	1.3	1.9	2.2	1.5	1.2	1.7	1.7	2.0	1.6	2.2	1.8	1.8	2.5	2.0	1.5	2.2	1.8	1.4	2.1	1.8	1.6	1.4	1.5	2.1	1.5	1.9	2.5	3.6	2.3	2.1	1.3	1.5
Question 25b																																		
A lot of tension	2.0	2.6	1.2	1.7	2.1	1.5	1.2	1.7	2.0	2.2	1.8	2.3	1.6	1.7	2.3	1.0	1.2	2.8	1.5	1.3	1.8	1.6	1.5	1.5	1.2	2.1	1.2	2.6	1.5	3.7	3.1	2.4	1.7	1.1
No tension	2.3	2.1	1.3	1.2	1.1	1.3	0.5	1.3	1.3	1.6	0.7	1.9	1.4	1.6	1.5	2.2	1.1	1.3	1.2	0.9	1.6	1.3	1.0	1.0	1.0	0.9								

Question	EU27																					Non-EU27													
	Enumerated random route											Random probability (RP)										Enumerated random route						RP							
	BG	CY	DE	EE	EL	ES	FR	IT	LT	PT	RO	SK	AT	BE	CZ	DK	FI	HU	IE	LU	LV	MT	NL	PL	SE	SI	UK	HR	KO	ME	MK	RS	TR	IS	
Question 25c																																			
A lot of tension	1.0	2.3	0.6	1.3	1.7	1.0	0.8	1.2	0.8	1.1	1.1	1.0	1.2	1.1	1.4	0.8	0.6	1.9	0.9	1.0	0.6	1.4	0.8	0.8	1.0	1.2	0.9	1.6	1.3	3.1	1.9	1.6	1.5	1.0	
No tension	2.4	2.3	1.5	2.2	1.8	1.7	1.1	1.9	2.3	2.3	1.6	2.5	2.0	2.2	2.5	2.2	1.7	3.0	2.1	1.4	2.1	1.7	1.7	1.4	1.3	2.1	1.4	2.3	2.3	3.5	3.4	2.4	1.2	1.7	
Some tension	2.2	2.5	1.4	2.3	2.0	1.6	1.2	1.7	2.1	2.3	1.6	2.3	2.0	2.1	2.3	2.1	1.7	2.4	2.0	1.4	2.0	1.8	1.7	1.4	1.5	1.9	1.5	2.2	2.3	3.4	2.9	2.1	1.4	2.1	
Question 25d																																			
A lot of tension	1.4	2.1	0.8	1.3	1.9	1.0	0.9	1.0	1.2	1.4	1.4	1.3	1.2	1.4	2.0	0.6	0.7	2.3	0.8	0.9	1.4	1.2	1.0	1.1	0.9	1.3	1.1	2.3	1.5	3.0	2.4	2.1	1.4	0.4	
No tension	2.6	2.4	1.4	1.7	2.2	1.6	1.2	1.9	2.2	2.3	1.3	2.1	1.8	1.9	2.2	1.9	1.7	2.1	1.8	1.3	2.4	1.8	1.6	1.4	1.5	1.9	1.2	1.9	3.4	3.4	3.0	2.2	1.5	1.4	
Some tension	2.4	2.3	1.3	1.7	2.0	1.5	1.2	1.7	2.0	2.3	1.7	2.1	1.9	1.7	2.4	1.8	1.8	2.2	1.8	1.3	2.1	1.8	1.7	1.4	1.6	1.9	1.4	2.3	3.0	3.6	2.6	2.1	1.5	1.4	
Question 25e																																			
A lot of tension	2.2	3.1	1.2	1.5	2.2	1.5	1.2	1.9	1.6	1.8	1.8	2.3	1.9	2.4	2.1	1.9	1.9	2.4	1.8	1.3	1.4	1.7	1.7	1.3	1.6	1.9	1.3	2.3	2.7	3.7	3.2	2.1	1.7	1.4	
No tension	2.3	1.8	1.0	1.6	1.4	1.3	0.7	1.2	2.3	2.0	1.1	1.7	1.2	1.1	0.8	1.8	0.9	1.1	1.4	1.2	1.9	1.1	0.9	1.3	0.6	1.3	0.9	2.2	3.2	3.1	2.5	1.7	1.3	1.2	
Some tension	2.5	2.7	1.2	1.8	2.0	1.6	1.2	1.7	2.0	2.1	1.8	2.1	1.8	1.9	2.0	2.1	1.8	2.2	1.8	1.5	1.9	1.8	1.7	1.5	1.6	2.0	1.4	2.2	2.3	2.8	3.0	2.0	1.3	1.8	
Question 25f																																			
A lot of tension	1.9	2.6	1.2	1.3	2.3	1.4	1.2	1.8	1.6	1.5	1.5	1.3	1.7	2.3	2.4	1.7	1.5	2.4	1.5	1.3	1.2	1.5	1.6	1.4	1.5	2.0	1.2	2.0	2.2	3.9	3.0	2.1	1.7	1.3	
No tension	2.7	2.1	1.0	2.4	2.0	1.5	0.8	1.8	2.2	2.4	1.8	2.6	1.3	1.7	2.7	2.0	1.6	3.1	2.0	1.6	2.6	1.7	1.2	1.5	1.1	1.6	1.1	2.4	3.5	3.1	2.6	1.9	1.4	1.8	
Some tension	2.4	2.3	1.2	2.4	2.2	1.5	1.2	1.9	2.1	2.3	1.8	2.5	1.8	2.0	2.4	1.9	1.7	2.0	1.8	1.4	2.4	1.8	1.7	1.5	1.7	2.1	1.3	2.2	2.7	2.6	3.0	2.1	1.5	2.3	
Question 25g																																			
A lot of tension	1.9	2.8	0.6	1.7	2.3	1.1	1.0	1.5	2.3	1.6	1.8	1.4	1.4	1.4	1.7	0.8	1.5	2.5	1.4	0.9	2.3	1.6	1.2	1.5	1.2	2.1	1.0	2.5	1.9	3.6	2.7	2.3	1.7	0.7	
No tension	3.1	2.2	1.6	1.8	2.7	1.6	1.1	1.7	2.0	2.2	1.5	2.6	1.7	2.5	2.6	2.3	1.3	2.2	1.8	1.6	2.3	1.6	1.3	1.2	1.1	1.1	1.4	1.6	3.3	1.9	2.1	1.0	1.3	1.6	
Some tension	2.9	2.7	1.5	2.2	2.1	1.6	1.2	1.8	2.2	2.4	1.9	2.5	1.9	2.1	2.3	2.3	1.7	2.4	1.9	1.5	2.5	1.9	1.6	1.5	1.5	2.1	1.5	2.2	2.8	2.7	2.9	2.2	1.5	1.9	
Question 33a																																			
(Don't have such relatives)	2.2	2.0	1.1	1.3	2.3	1.9	1.0	1.3	2.1	2.1	1.6	2.2	1.8	2.0	1.5	1.7	1.6	1.4	2.2	1.2	2.3	1.8	1.6	1.3	1.6	2.0	1.4	1.9	2.6	2.6	2.5	2.2	1.1	2.2	
At least once a week	1.4	1.4	1.1	1.6	1.6	1.2	1.1	1.2	1.7	1.6	1.1	1.5	2.1	1.9	1.7	2.0	1.8	1.7	1.6	1.2	1.8	1.9	1.8	1.1	1.9	2.2	1.4	1.5	1.2	1.5	1.7	2.0	1.0	1.8	
Every day or almost every day	1.5	2.3	1.3	2.2	2.8	2.0	1.5	1.7	1.9	2.4	2.0	2.6	2.4	2.2	2.1	1.6	2.0	2.3	2.6	1.7	2.8	2.2	1.8	1.7	1.5	2.3	1.7	1.7	2.1	2.7	2.7	1.9	1.6	2.4	
Less often	1.2	0.7	0.7	1.5	1.0	0.7	0.9	0.6	1.3	1.2	1.2	0.8	1.1	0.7	1.1	1.1	1.1	0.9	0.9	0.6	1.6	0.6	0.6	0.9	1.4	0.6	0.7	0.9	1.7	1.0	1.2	1.2	0.6	0.8	
Never	0.3	0.3	0.6	1.0	0.6	0.5	0.5	0.5	1.0	1.2	0.6	0.6	1.0	0.4	0.3	0.3	0.5	0.4	1.0	0.5	0.5	0.8	0.6	0.4	0.4	0.7	0.7	0.3	0.4	0.8	0.5	0.3	0.1	0.5	
One to three times a month	1.2	0.5	1.0	1.6	0.9	0.7	0.9	0.5	1.1	1.3	0.8	1.2	1.5	1.1	1.4	1.8	1.4	1.5	0.9	0.8	1.1	0.4	1.3	0.8	1.7	1.2	0.7	1.0	1.4	1.1	1.0	0.9	0.9	1.2	
Question 33b																																			
(Don't have such relatives)	2.1	1.7	1.2	1.9	2.0	1.6	1.1	1.4	2.0	1.9	1.8	2.1	1.7	2.2	1.9	2.0	1.7	1.9	2.1	1.2	2.5	1.8	1.5	1.4	1.6	1.9	1.5	1.7	2.5	2.5	2.3	2.0	1.2	2.3	
At least once a week	1.4	1.4	0.9	1.6	1.2	1.1	0.9	1.0	1.4	1.5	1.1	1.7	1.4	1.5	1.4	1.4	1.3	1.2	1.5	1.1	1.2	1.4	1.4	0.9	1.3	1.3	1.1	1.2	1.7	1.7	1.3	1.3	1.0	1.6	
Every day or almost every day	1.7	1.9	0.7	1.6	1.6	1.2	0.8	1.3	1.4	1.7	1.5	1.7	1.2	1.5	1.5	1.1	1.0	1.5	1.5	1.0	1.5	1.5	1.3	1.1	0.8	1.8	1.0	1.4	1.5	2.2	1.6	1.2	1.3	1.8	
Less often	1.0	0.6	0.8	0.9	1.0	0.9	0.9	0.6	1.0	0.9	0.9	0.6	1.2	0.9	1.2	1.3	1.2	0.8	1.1	1.0	0.9	0.4	1.0	0.7	1.3	1.0	1.1	0.8	1.1	0.9	0.8	0.9	0.7	1.2	
Never	0.4	0.4	0.6	1.7	0.7	0.9	0.7	0.6	1.1	1.0	1.2	0.8	0.8	1.6	1.2	0.8	0.7	1.0	1.3	0.8	1.5	1.0	1.0	0.7	0.7	1.0	0.9	0.3	0.7	0.7	0.7	0.7	0.6	0.9	
One to three times a month	1.1	0.8	0.9	1.2	0.8	0.7	0.9	0.5	1.0	0.9	1.0	1.5	1.6	1.2	1.1	1.7	1.6	1.1	1.2	0.8	1.1	0.4	1.2	0.8	1.3	0.8	0.7	0.8	0.9	0.9	0.9	1.0	0.8	2.0	
Question 33c																																			
(Don't have such relatives)	1.6	1.3	0.7	1.2	1.1	1.1	0.6	1.0	1.2	1.1	0.8	1.2	0.9	1.1	1.2	1.0	0.6	1.5	0.7	0.9	1.5	0.9	0.7	0.7	0.7	1.5	0.7	1.3	1.7	2.1	1.6	1.0	0.5	0.5	
At least once a week	1.5	1.6	0.9	1.6	1.8	1.3	0.9	1.3	1.7	2.0	1.3	1.9	1.5	1.7	1.3	1.5	1.3	1.5	1.5	1.3	1.4	1.7	1.5	1.2	1.2	1.8	1.2	1.7	2.2	2.2	1.6	1.8	1.1	2.5	
Every day or almost every day	1.5	1.9	0.7	1.3	2.0	1.2	0.7	1.2	1.5	1.5	1.3	1.7	1.1	1.3	1.2	1.0	0.8	1.6	1.7	1.0	1.5	1.5	1.0	1.0	0.6	1.4	0.9	1.7	2.0	4.2	1.7	1.2	1.1	1.9	
Less often	1.8	1.3	1.0	1.9	1.3	1.1	1.2	1.0	1.4	1.4	1.3	1.3	1.8	1.5	2.0	1.7	1.5	1.5	1.5	1.2	1.8	1.2	1.5	1.2	1.6	1.4	1.3	2.0	2.2	1.9	1.4	1.6	0.9	1.6	
Never	0.6	0.5	0.5	0.9	0.4	0.5	0.6	0.5	0.7	0.8	0.5	0.4	0.7	0.9	0.7	0.6	0.5	0.5	0.5	0.7	0.7	0.7	0.7	0.4	0.7	0.8	0.7	0.4	0.6	0.4	0.4	0.5	0.6	0.4	
One to three times a month	1.8	1.0	1.1	1.6	1.																														

Question	EU27																								Non-EU27									
	Enumerated random route												Random probability (RP)												Enumerated random route						RP			
	BG	CY	DE	EE	EL	ES	FR	IT	LT	PT	RO	SK	AT	BE	CZ	DK	FI	HU	IE	LU	LV	MT	NL	PL	SE	SI	UK	HR	KO	ME	MK	RS	TR	IS
Question 36a																																		
Every day	2.0	1.9	0.8	1.7	1.8	1.4	1.0	1.3	1.9	1.7	1.3	2.0	1.2	1.7	1.6	1.6	1.5	1.7	1.8	1.2	1.6	1.5	1.4	1.1	1.3	1.9	1.1	1.5	2.7	2.3	2.1	1.9	1.4	1.7
Less often	1.3	1.1	0.7	1.5	1.0	0.8	0.9	0.8	1.1	0.9	1.0	1.3	1.0	1.1	1.4	1.4	1.4	1.0	1.0	0.8	1.1	0.8	1.1	0.6	1.3	0.9	0.7	0.9	1.3	1.2	1.3	1.3	0.6	1.6
Never	2.1	2.1	1.1	2.2	1.9	1.5	1.3	1.4	2.0	2.3	1.5	2.3	1.7	1.9	2.0	2.1	1.9	2.3	2.0	1.4	2.1	1.7	1.7	1.3	1.7	2.1	1.3	1.8	2.5	3.1	2.2	1.8	1.5	2.4
Once or twice a week	0.9	0.6	0.4	0.9	0.7	0.5	0.7	0.6	0.7	0.9	0.6	0.8	0.9	0.9	0.9	0.9	1.0	0.7	0.8	0.6	0.7	0.6	0.7	0.4	0.9	1.0	0.6	0.8	0.9	0.8	0.8	0.9	0.4	1.1
Several days a week	0.9	0.9	0.4	0.8	0.8	0.7	0.6	0.9	0.8	0.9	0.6	0.7	0.8	0.9	1.0	1.0	0.8	0.9	0.7	0.6	1.0	0.8	0.8	0.5	0.8	0.8	0.5	0.8	1.7	0.9	1.4	0.8	0.6	1.3
Question 36b																																		
Every day	1.8	2.0	1.3	2.0	1.9	1.6	1.2	1.3	1.7	1.9	1.8	2.2	2.0	1.9	1.9	2.0	1.5	2.3	1.7	1.3	1.9	1.8	1.6	1.4	1.6	1.8	1.3	2.0	2.1	2.4	1.9	1.9	1.3	1.5
Less often	1.5	1.4	0.5	0.8	1.1	0.8	0.6	0.8	0.9	1.2	1.0	1.7	1.0	1.1	1.0	0.7	0.8	0.9	0.4	0.9	0.8	1.0	0.9	0.6	0.7	1.0	0.4	1.0	1.5	1.4	1.3	1.3	0.8	0.8
Never	1.6	1.9	0.7	0.3	1.6	1.1	0.4	0.9	0.7	1.0	0.8	1.3	1.3	0.9	1.1	0.4	0.5	1.3	0.3	0.7	0.8	1.3	0.8	0.9	0.3	1.0	0.6	1.5	2.3	2.7	2.1	1.3	1.4	0.4
Once or twice a week	1.1	1.0	0.6	1.2	0.9	0.9	0.7	0.7	0.8	1.1	0.9	1.4	1.2	0.8	1.1	1.1	1.0	1.2	1.2	0.8	1.1	0.9	0.9	0.9	0.9	0.8	0.7	1.0	1.5	0.9	1.2	1.0	0.5	1.2
Several days a week	1.6	1.5	1.0	1.6	1.2	0.9	1.0	1.0	1.5	1.3	1.2	1.8	1.6	1.2	1.7	1.9	1.4	1.7	1.3	1.0	1.6	1.1	1.3	1.0	1.4	1.5	1.0	1.5	1.6	1.2	1.3	1.3	0.7	1.8
Question 36c																																		
Every day	1.1	0.9	0.3	0.8	1.0	0.8	0.6	0.6	1.0	0.8	0.8	0.8	0.6	0.6	0.7	0.4	0.6	0.8	0.9	0.5	0.8	0.9	0.6	0.6	0.4	0.7	0.7	1.0	1.9	1.1	1.0	1.0	0.9	1.0
Less often	1.7	0.9	0.6	1.2	0.9	0.8	0.9	0.8	1.5	1.0	1.0	1.6	1.2	1.2	1.3	1.6	1.8	1.3	1.2	0.7	1.2	0.9	1.2	0.7	1.3	1.1	0.8	0.9	2.2	1.6	1.4	1.2	0.8	2.3
Never	2.1	1.4	0.9	1.7	1.7	1.4	1.2	1.4	2.4	2.0	1.5	2.1	1.5	1.7	1.7	1.6	1.8	2.1	1.7	1.1	1.7	1.4	1.5	1.2	1.5	1.8	1.2	1.6	2.7	2.1	2.1	1.6	1.4	2.1
Once or twice a week	0.7	0.5	0.3	0.7	0.6	0.5	0.6	0.6	1.0	0.9	0.5	0.6	0.6	0.8	0.7	0.7	1.0	1.0	0.8	0.6	0.8	0.6	0.8	0.5	0.7	0.8	0.6	0.6	1.0	0.6	0.5	0.4	0.5	1.0
Several days a week	0.6	0.5	0.3	0.6	0.5	0.5	0.6	0.6	1.1	0.6	0.5	0.7	0.5	0.7	0.7	0.4	0.6	0.8	0.5	0.5	0.8	0.6	0.7	0.4	0.5	0.7	0.5	0.7	1.8	0.5	0.7	0.5	0.6	0.8
Question 42																																		
Bad	0.9	0.6	0.5	1.2	0.8	0.5	0.5	0.6	1.2	1.1	0.9	0.9	0.6	1.0	1.0	1.4	0.8	1.0	0.6	0.6	1.0	0.5	0.9	0.7	0.8	1.0	0.7	1.0	1.0	1.2	0.8	1.2	0.6	0.7
Fair	1.5	1.5	0.9	1.7	1.3	1.2	1.0	1.2	1.5	1.6	1.4	1.8	1.4	1.7	1.5	1.6	1.5	1.6	1.3	1.1	1.9	1.6	1.4	1.1	1.5	1.7	1.0	1.6	1.5	2.1	1.8	1.9	1.1	1.4
Good	2.0	2.0	1.2	1.9	1.9	1.5	1.2	1.5	1.7	1.8	1.6	2.0	1.9	1.5	1.6	1.8	1.7	1.8	1.8	1.4	1.8	1.7	1.7	1.3	1.6	1.8	1.3	1.4	2.0	2.2	1.9	1.7	1.5	1.9
Very bad	0.4	0.1	0.3	0.5	0.5	0.3	0.3	0.3	0.5	0.5	0.6	0.3	0.2	0.5	0.7	0.3	0.4	0.6	0.4	0.2	0.7	0.3	0.3	0.5	0.4	0.4	0.4	0.6	0.5	0.3	0.3	1.0	0.4	0.4
Very good	1.9	2.5	1.0	1.4	2.0	1.5	1.1	1.4	1.1	1.5	1.2	2.0	1.7	1.4	1.5	1.8	1.2	1.6	2.0	1.2	1.1	1.5	1.3	1.0	1.4	1.6	1.2	2.0	2.4	2.2	2.2	1.8	1.0	2.0
Question 43																																		
No	1.5	1.7	1.2	2.0	1.3	1.1	1.1	1.2	1.6	1.7	1.4	1.2	1.6	1.8	1.5	1.9	1.7	1.6	1.6	1.3	2.2	1.3	1.6	1.2	1.6	1.6	1.3	1.7	1.3	1.7	1.4	1.7	1.1	1.9
Yes	1.5	1.7	1.2	2.0	1.3	1.1	1.1	1.2	1.6	1.7	1.4	1.2	1.6	1.8	1.5	1.9	1.7	1.6	1.6	1.3	2.2	1.3	1.6	1.2	1.6	1.6	1.3	1.7	1.3	1.7	1.4	1.7	1.1	1.9
Question 45a																																		
All of the time	1.6	1.6	0.7	1.0	0.8	0.9	0.7	0.8	0.9	1.5	1.2	1.3	1.6	1.3	1.0	1.4	0.9	0.9	1.2	0.7	0.7	0.5	1.0	1.0	1.1	0.7	0.8	1.4	1.8	1.5	1.8	0.8	1.0	1.2
At no time	0.5	1.0	0.2	0.3	0.7	0.2	0.4	0.3	0.5	0.3	0.6	0.6	0.4	0.3	0.2	0.4	0.2	0.5	0.4	0.4	0.6	0.8	0.4	0.5	0.3	0.1	0.4	0.4	0.5	0.2	0.3	0.7	0.6	0.1
Less than half of the time	1.0	1.2	0.5	1.6	1.6	0.8	0.7	0.9	1.2	1.0	1.0	1.4	0.8	0.9	1.5	1.0	1.0	1.3	0.9	0.7	1.5	1.1	1.0	0.9	0.8	1.1	0.7	1.1	1.3	1.4	1.4	1.3	0.5	1.0
More than half of the time	1.5	1.8	1.0	1.8	1.8	1.2	1.0	1.2	1.8	1.8	1.1	1.9	1.7	1.3	1.4	1.4	1.6	1.5	1.3	1.0	1.8	1.6	1.4	1.1	1.4	1.7	1.0	1.3	1.7	2.3	1.5	1.6	0.9	1.3
Most of the time	2.0	1.6	1.2	1.9	1.9	1.5	1.2	1.4	1.7	2.2	1.5	1.9	1.8	1.8	1.8	2.0	1.5	1.9	1.8	1.3	1.7	1.7	1.7	1.3	1.7	1.8	1.4	1.6	2.3	2.5	2.3	1.5	1.3	2.2
Some of the time	1.2	1.7	0.5	1.1	1.3	1.0	0.7	0.7	1.0	1.3	1.2	1.4	0.8	0.8	0.9	0.7	0.7	1.4	1.2	0.8	1.3	1.2	0.7	1.0	0.8	1.2	0.8	1.0	2.5	1.3	1.2	1.4	1.2	0.6
Question 45b																																		
All of the time	1.6	1.8	0.7	0.9	0.9	1.0	0.7	0.9	0.9	1.5	1.1	1.3	1.7	0.9	1.0	1.5	0.9	1.1	1.1	0.7	0.9	0.8	1.0	0.9	1.1	0.9	0.7	1.3	1.6	1.5	1.6	1.0	0.8	1.3
At no time	0.5	1.0	0.4	0.3	0.9	0.4	0.6	0.4	0.5	0.4	0.6	0.5	0.5	0.7	0.3	0.2	0.4	0.9	0.6	0.6	1.0	0.9	0.6	0.5	0.4	0.2	0.4	0.6	0.6	0.4	0.3	0.8	0.6	0.4
Less than half of the time	1.3	1.3	0.6	1.5	1.9	0.8	0.9	1.0	1.4	1.3	1.1	1.5	1.2	1.4	1.5	1.1	1.2	1.5	0.9	0.8	1.5	1.3	1.2	1.0	1.1	1.3	0.8	1.3	1.8	1.3	1.6	1.3	0.6	1.4
More than half of the time	1.5	1.6	1.0	1.7	1.7	1.2	1.0	1.4	1.7	1.7	1.3	1.9	1.5	1.7	1.6	1.7	1.7	1.6	1.5	1.2	2.0	1.6	1.5	1.1	1.4	1.9	1.1	1.6	2.1	1.9	1.5	1.7	1.1	1.1
Most of the time	1.9	1.8	1.2	1.7	1.8	1.5	1.0	1.3	1.7	2.2	1.5	1.8	1.8	2.0	1.8	2.1	1.6	2.0	1.9	1.3	1.7	1.6	1.6	1.2	1.6	1.8	1.4							
Some of the time	1.4	1.4	0.6	1.2	1.3	1.0	0.8	0.7	1.2	1.1	1.2	1.4	1.1	1.0	0.9	0.9	0.7	1.2	1.1	0.9	1.4	1.2	0.7	1.0	0.9	1.3	0.8	1.0	2.1	1.3	1.1	1.4	1.2	0.0

	EU27																							Non-EU27										
	Enumerated random route												Random probability (RP)											Enumerated random route						RP				
Question	BG	CY	DE	EE	EL	ES	FR	IT	LT	PT	RO	SK	AT	BE	CZ	DK	FI	HU	IE	LU	LV	MT	NL	PL	SE	SI	UK	HR	KO	ME	MK	RS	TR	IS
Question 45c																																		
All of the time	1.7	2.3	0.8	0.9	1.3	1.0	0.9	1.0	1.1	1.4	1.2	1.2	1.6	1.1	1.0	1.4	1.1	1.5	1.0	0.8	0.9	0.8	1.0	1.1	0.9	0.9	0.7	1.6	1.9	1.6	1.7	1.0	0.9	1.0
At no time	0.6	0.9	0.4	0.5	0.7	0.4	0.5	0.3	0.5	0.5	0.6	0.8	0.7	0.6	0.5	0.6	0.3	0.8	0.9	0.6	0.8	0.7	0.7	0.5	0.5	0.5	0.8	0.6	1.3	0.4	0.5	1.0	0.6	0.3
Less than half of the time	0.9	1.3	0.7	1.5	1.5	0.8	0.8	0.9	1.3	1.2	1.0	1.3	1.1	1.2	1.5	1.4	1.0	1.2	1.2	0.9	1.2	1.1	1.2	0.9	1.2	1.5	1.0	1.2	1.4	1.4	1.6	1.4	0.6	0.9
More than half of the time	1.3	1.4	1.0	1.7	1.9	1.2	1.0	1.3	1.9	1.7	1.2	1.8	1.8	1.6	1.6	1.9	1.7	1.6	1.4	1.1	1.7	1.6	1.5	1.0	1.5	1.7	1.0	1.5	2.1	2.0	1.2	1.6	0.9	1.8
Most of the time	1.7	1.8	1.1	1.8	2.1	1.3	1.1	1.5	1.7	1.8	1.5	1.8	1.7	2.1	1.6	1.9	1.6	1.7	2.2	1.3	1.8	1.7	1.6	1.2	1.5	1.5	1.2	1.6	2.1	2.5	2.2	1.4	1.3	2.3
Some of the time	1.1	1.3	0.6	1.1	1.1	0.8	0.7	0.6	1.0	1.1	1.2	1.3	1.2	1.3	1.1	0.9	0.9	0.9	1.3	0.8	1.3	1.3	0.9	1.0	1.1	1.4	0.8	0.8	1.5	1.2	1.1	1.3	1.3	1.0
Question 45d																																		
All of the time	1.7	2.2	0.7	0.9	1.1	0.9	0.7	0.8	1.1	1.2	1.0	1.2	1.8	1.0	0.9	1.5	1.0	1.3	1.0	0.7	1.2	1.0	1.0	1.0	1.0	0.8	0.6	1.3	2.1	2.6	1.9	0.8	0.8	1.5
At no time	0.5	1.0	0.6	0.6	1.0	0.6	0.8	0.5	0.8	0.6	0.7	0.7	0.6	1.1	0.4	0.8	0.6	1.0	1.2	0.8	1.1	0.7	0.9	0.7	0.9	0.7	0.9	0.9	0.9	0.6	0.6	1.0	0.7	0.8
Less than half of the time	1.3	1.3	0.6	1.7	1.4	0.9	0.9	0.9	1.5	1.4	1.0	1.4	1.2	1.4	1.4	1.4	1.4	1.3	1.0	1.3	1.1	1.4	1.0	1.2	1.6	0.9	1.6	1.4	1.4	1.6	1.4	0.6	1.5	
More than half of the time	1.5	1.2	1.0	1.8	1.8	1.2	1.0	1.3	1.9	1.8	1.2	1.7	1.8	1.4	1.8	1.7	1.5	1.9	1.4	1.1	1.5	1.4	1.4	1.1	1.3	1.9	1.0	1.5	2.0	2.0	1.7	1.6	0.9	1.5
Most of the time	2.0	1.5	1.1	1.8	1.6	1.4	1.0	1.3	1.8	2.1	1.4	1.9	1.8	1.7	2.0	1.8	1.6	2.0	1.9	1.2	1.9	1.7	1.5	1.3	1.5	1.6	1.2	1.6	2.2	2.6	2.3	1.4	1.3	2.1
Some of the time	1.3	1.7	0.6	1.4	1.2	1.0	0.8	0.8	1.4	1.1	1.2	1.5	1.0	1.3	1.2	1.4	1.1	1.0	1.3	1.0	1.3	1.3	0.9	1.0	1.3	1.3	1.0	1.4	1.6	1.4	1.3	1.4	1.3	1.2
Question 45e																																		
All of the time	1.4	2.1	0.9	1.1	0.9	1.2	0.8	0.8	1.1	1.5	1.2	1.3	1.7	1.4	0.8	1.5	1.2	1.3	1.2	0.9	1.2	0.8	1.1	1.0	1.2	0.8	0.7	1.4	3.5	2.8	1.8	1.0	0.8	0.9
At no time	0.7	0.8	0.3	0.5	0.9	0.4	0.4	0.4	0.6	0.3	0.7	0.4	0.7	0.5	0.2	0.4	0.4	0.5	0.7	0.4	0.9	0.5	0.5	0.6	0.4	0.3	0.5	0.5	0.9	0.5	0.6	1.0	0.8	0.4
Less than half of the time	1.5	1.2	0.7	1.8	1.5	0.9	0.8	0.9	1.4	1.1	1.1	1.5	1.0	1.0	1.5	1.3	1.2	1.5	1.0	0.8	1.4	1.1	1.1	0.9	1.0	1.6	0.7	1.3	1.4	1.5	1.7	1.4	0.5	1.3
More than half of the time	1.8	1.4	1.1	1.7	1.9	1.2	1.0	1.2	1.7	1.7	1.2	1.8	1.8	1.3	1.8	1.6	1.6	1.9	1.3	1.3	1.7	1.6	1.4	1.1	1.3	1.7	1.1	1.8	2.0	1.8	1.7	1.8	0.9	1.5
Most of the time	1.8	1.8	1.2	1.6	1.9	1.4	1.2	1.4	1.8	1.8	1.6	1.9	1.7	1.7	2.0	2.1	1.8	2.1	2.1	1.4	2.0	1.6	1.7	1.3	1.6	1.7	1.2	1.5	2.3	2.4	2.0	1.5	1.2	1.6
Some of the time	1.6	1.7	0.7	1.6	1.3	0.9	0.7	0.8	1.2	1.1	1.1	1.5	1.1	0.9	1.1	0.9	1.0	1.1	1.3	0.8	1.4	1.4	0.6	1.0	1.0	1.5	0.9	1.1	1.8	2.1	1.2	1.3	1.4	1.6
Question 50a																																		
Major problems	1.5	2.1	0.9	1.2	1.6	0.8	0.7	0.9	1.1	1.0	1.1	0.5	1.2	1.6	1.1	1.0	0.3	0.7	0.6	0.7	0.7	1.0	0.4	0.8	0.5	0.6	0.5	1.4	1.8	1.7	1.6	1.1	1.1	0.5
Moderate problems	2.2	1.9	1.3	1.8	2.5	1.3	1.1	1.8	2.0	1.7	1.6	2.1	1.8	1.8	2.1	1.8	1.2	2.1	1.4	1.1	1.5	1.7	1.4	1.1	1.4	1.6	1.2	2.0	3.0	3.0	2.9	1.7	1.3	2.5
No problems	2.5	2.6	1.5	2.1	2.8	1.6	1.2	2.0	2.2	1.9	1.9	2.2	2.1	2.2	2.3	2.1	1.3	2.2	1.6	1.4	1.6	1.7	1.4	1.4	1.4	1.7	1.4	2.3	3.5	3.2	3.4	2.0	1.5	2.8
Question 50b																																		
Major problems	1.9	1.5	0.7	1.0	2.1	0.7	0.5	1.4	1.0	0.6	0.9	0.7	0.9	1.1	1.7	0.3	0.2	1.0	0.6	0.3	0.7	1.2	0.5	0.7	0.5	0.5	0.4	1.2	2.8	3.5	2.0	0.9	1.1	0.6
Moderate problems	2.4	1.9	1.2	1.9	2.4	1.3	1.0	1.7	2.0	1.5	1.6	2.0	1.6	1.8	1.8	1.1	1.1	2.3	1.0	1.0	1.3	1.7	1.0	1.3	1.0	1.7	0.9	1.8	3.0	2.4	2.4	1.9	1.4	1.9
No problems	2.8	2.5	1.5	2.2	3.0	1.5	1.1	2.1	2.4	1.7	1.9	2.2	1.8	2.3	2.1	1.1	1.1	2.5	1.1	1.0	1.6	1.8	1.1	1.5	1.0	1.8	1.1	2.2	3.7	4.0	3.2	2.2	1.6	2.1
Question 50c																																		
Major problems	2.3	2.8	0.3	1.1	2.1	0.8	0.4	1.3	0.9	0.3	1.3	0.5	0.4	0.7	0.4	0.3	0.2	1.3	1.3	0.5	1.1	1.2	0.2	0.7	0.3	0.5	0.3	0.6	2.8	2.7	1.5	1.7	1.5	0.3
Moderate problems	2.4	1.7	1.0	1.8	2.4	1.3	0.9	1.7	2.0	1.6	1.6	1.7	1.1	1.3	1.8	0.4	0.6	2.2	1.4	0.9	1.6	1.7	0.5	1.2	0.6	1.4	0.8	1.3	2.9	2.1	2.5	2.0	1.3	0.7
No problems	2.9	2.8	1.0	2.0	3.4	1.7	1.0	2.2	2.3	1.6	1.9	1.8	1.2	1.5	2.0	0.5	0.7	2.7	2.0	1.0	2.0	1.8	0.5	1.4	0.7	1.5	0.8	1.5	3.8	3.6	3.2	2.4	1.6	0.7
Question 50d																																		
Major problems	1.7	1.9	0.7	0.6	2.2	0.6	0.6	1.1	1.3	1.0	0.7	0.6	1.0	1.4	1.2	0.7	0.3	1.3	0.9	0.4	0.9	0.9	0.5	0.7	0.6	0.6	0.8	1.1	2.8	2.2	1.4	0.8	1.0	0.1
Moderate problems	2.2	1.6	1.3	2.1	2.2	1.3	1.1	2.1	1.6	1.8	1.6	2.7	1.8	2.1	2.3	1.9	1.3	2.3	1.9	1.1	1.7	1.5	1.5	1.2	1.4	1.4	1.5	1.7	2.9	2.8	2.7	1.1	1.2	1.4
No problems	2.4	2.4	1.5	2.1	2.6	1.5	1.2	2.2	2.2	2.3	1.8	2.8	2.0	2.4	2.6	2.1	1.3	2.8	2.3	1.2	2.0	1.6	1.5	1.3	1.5	1.7	1.7	2.0	3.3	3.7	3.1	1.4	1.5	1.4
Question 50e																																		
Major problems	2.0	1.4	0.7	0.6	2.3	0.7	0.7	1.2	1.5	0.7	0.9	0.7	0.6	1.5	1.1	0.6	0.5	1.4	1.0	0.3	0.7	1.1	0.6	0.8	0.7	0.4	1.1	0.8	3.2	1.5	2.1	1.4	1.2	0.4
Moderate problems	2.3	1.8	1.3	2.2	2.4	1.2	1.2	1.6	1.8	1.4	1.7	2.7	1.8	1.8	2.2	0.9	1.3	2.2	1.9	0.9	1.8	1.4	1.3	1.3	1.5	1.7	1.5	1.6	2.6	3.2	2.4	1.8	1.2	2.2
No problems	2.4	2.3	1.5	2.2	2.9	1.4	1.3	2.0	2.5	1.7	1.9	2.9	1.9	2.2	2.5	1.1	1.4	2.7	2.3	0.9	2.0	1.6	1.3	1.5	1.5	1.7	1.8	1.8	2.5	3.7	3.0	2.2	1.5	2.4

	EU27																						Non-EU27											
	Enumerated random route												Random probability (RP)												Enumerated random route						RP			
Question	BG	CY	DE	EE	EL	ES	FR	IT	LT	PT	RO	SK	AT	BE	CZ	DK	FI	HU	IE	LU	LV	MT	NL	PL	SE	SI	UK	HR	KO	ME	MK	RS	TR	IS
Question 50f																																		
Major problems	1.5	1.7	0.8	1.1	1.9	0.6	0.8	1.5	1.4	1.0	1.1	0.9	1.2	1.8	1.5	1.3	0.6	1.1	1.3	1.0	0.7	1.5	0.7	1.1	0.7	0.4	1.0	1.9	1.8	2.1	1.8	1.2	0.9	0.6
Moderate problems	1.9	1.7	1.2	1.3	2.0	1.2	0.9	1.8	1.7	2.1	1.3	2.0	1.4	2.1	1.8	1.7	1.5	1.9	1.4	1.2	1.2	1.7	1.2	1.1	1.1	1.7	1.5	1.7	2.7	2.3	2.4	1.6	1.1	1.5
No problems	2.0	2.2	1.5	1.7	2.7	1.4	1.2	2.1	2.1	2.5	1.8	2.1	1.8	2.7	2.3	2.2	1.6	2.3	1.7	1.5	1.5	1.7	1.3	1.5	1.2	1.8	2.0	2.6	3.7	3.1	3.1	2.1	1.4	1.7
Question 57																																		
Much better	0.5	0.6	0.6	0.7	0.5	0.5	0.7	0.4	0.7	0.5	0.5	0.4	0.9	0.5	0.8	1.4	0.7	0.3	1.0	0.7	0.8	0.4	1.1	0.4	0.9	0.3	0.6	0.5	0.9	0.8	1.0	0.5	0.4	0.9
Much worse	1.5	1.0	0.6	1.2	1.9	0.6	0.3	0.4	0.7	0.7	0.9	1.4	0.5	0.3	0.7	0.4	0.8	1.0	1.2	0.3	1.2	0.6	0.8	0.8	0.8	1.2	0.6	1.1	1.5	1.5	1.0	0.9	0.8	0.6
Neither worse nor better	2.3	2.2	1.3	1.8	2.3	1.4	1.2	1.5	1.8	2.1	1.5	2.0	1.9	1.8	2.2	2.2	1.7	2.0	2.0	1.4	1.9	1.7	1.7	1.4	1.6	1.9	1.4	1.9	2.3	2.2	2.5	1.8	1.3	2.2
Somewhat better	1.2	1.9	1.0	1.7	1.4	1.2	1.1	1.3	1.5	2.1	1.4	1.4	1.7	2.0	1.4	1.8	1.5	1.3	1.7	1.2	1.4	1.4	1.5	0.9	1.5	1.6	1.3	1.4	1.9	2.1	1.6	1.1	1.1	1.9
Somewhat worse	1.6	1.3	0.9	1.4	1.6	0.9	0.6	1.0	1.4	1.9	1.0	1.5	1.2	1.4	1.7	1.5	1.2	1.5	1.3	0.7	1.2	1.1	1.2	0.9	1.2	1.5	1.0	1.4	1.6	1.3	1.6	1.3	0.8	1.3
Question 58																																		
Easily	1.2	1.6	1.1	1.0	0.6	1.1	0.9	1.3	1.1	1.5	1.0	1.6	1.9	1.7	1.2	1.8	1.5	0.7	1.5	1.6	1.0	1.4	1.6	1.0	1.4	1.7	1.1	1.4	1.8	2.2	1.7	0.9	1.2	1.6
Fairly easily	1.6	1.9	1.0	1.6	0.9	1.4	1.1	1.5	1.6	2.0	1.3	1.6	1.7	2.0	1.7	1.7	1.7	1.8	1.6	1.3	1.6	1.8	1.5	1.2	1.6	1.6	1.2	1.6	1.9	2.6	1.9	1.4	1.2	1.9
Very easily	0.2	0.7	0.6	0.5	0.3	0.5	0.5	0.8	0.4	0.4	0.4	0.5	1.2	0.9	1.0	1.8	1.0	0.2	1.1	1.1	0.4	0.3	1.1	0.5	1.5	0.5	0.9	0.5	0.7	0.5	1.1	0.7	0.3	1.6
With difficulty	1.4	1.4	0.5	1.3	1.7	0.8	0.7	0.8	1.3	1.0	1.2	1.7	0.6	1.4	1.3	0.4	0.9	1.5	0.9	0.4	1.3	0.9	0.9	1.0	0.6	1.0	0.8	1.5	1.9	2.0	1.1	1.8	1.0	0.7
With great difficulty	1.8	1.9	0.6	1.2	1.9	0.9	0.7	0.7	0.8	1.2	1.1	1.3	0.4	0.7	0.9	0.4	0.3	1.5	0.9	0.3	1.4	0.6	0.6	0.8	0.6	1.1	0.5	1.1	1.3	1.1	1.4	1.2	0.9	0.8
With some difficulty	2.0	2.0	0.9	2.3	2.1	1.5	1.1	1.4	2.0	1.6	1.5	2.2	1.4	1.8	1.9	1.5	1.3	2.1	1.8	0.9	1.8	1.6	1.4	1.2	1.1	1.8	1.2	1.8	1.8	2.2	1.9	1.9	1.4	1.7
Question 65																																		
Better	1.0	1.5	0.9	1.3	0.8	0.6	0.8	0.5	1.2	0.8	0.9	1.3	1.2	1.4	1.0	1.5	1.4	1.0	0.8	1.0	1.3	1.1	1.3	0.8	1.4	1.0	1.0	1.0	2.2	1.0	1.4	0.9	0.9	2.1
The same	2.3	1.9	1.2	2.0	1.5	1.5	1.1	1.6	1.9	2.4	1.7	2.0	1.9	2.2	2.0	1.7	1.6	2.4	1.7	1.2	1.8	1.8	1.7	1.4	1.6	2.0	1.3	2.2	2.3	2.6	2.1	2.2	1.4	1.5
Worse	2.5	2.3	1.0	2.1	1.8	1.4	1.2	1.5	1.9	2.3	1.6	2.1	1.7	1.8	2.1	1.6	1.3	2.5	1.9	1.0	2.0	1.7	1.5	1.3	1.3	2.0	1.2	2.4	1.7	2.7	2.0	2.3	1.3	1.6

Annex 9: Screening of questionnaires

Table A6: Wording & response categories in EU-SILC 2011 and EU LFS questionnaires

		EU-SILC 2011	Options	EU LFS 2011	Options
Demographic	Sex	PB150: Sex	1 Male 2 Female	SEX – Col 10	1 Male 2 Female
Demographic	Age in completed years	RB070: Month of birth RB080: Year of birth PB090: Day of the personal interview PB100: Month of the personal interview PB110: Year of the personal interview	RB070: 1-12 month RB080: 1890- year of survey PB090: 1-31 day PB100: 1 - 12 month PB110: year (4 digits)	YEARBIR – Col 11/14 DATEBIR – Col 15	The 4 digits of year of birth are entered 1 Person's birthday falls between 1 January and the end of the reference week 2 Person's birthday falls after the end of the reference week
Demographic	Country of birth	PB210: Country of birth	Country code (See annex 2)	COUNTRYB – Col 21/22	For coding, see ISO country classification 99 Not applicable (col 19/20 = 00) Blank No answer
Demographic	Country of citizenship at time of data collection	PB220A: Citizenship 1 PB220B: Citizenship 2	Country code (See annex 2)	NATIONAL – Col 17/18	See country classification in Annex IV (derived from ISO)
Demographic	Legal marital status	PB190: Marital status	1 Never married 2 Married 3 Separated 4 Widowed 5 Divorced	MARSTAT – Col 16	1 Single 2 Married 3 Widowed 4 Divorced or legally separated Blank No answer
Demographic	De facto marital status (consensual union)	PB200: Consensual Union	1 yes, on a legal basis 2 yes, without a legal basis 3 no	HHSP0U – Col 4/5	01-98 Sequence number of spouse or cohabiting partner in the household 99 Not applicable (person does not belong to a private household, or has no partner, or the partner does not belong to this private household)
Demographic	Household composition	RB040: Current household ID	{Number of residents of this household can then be calculated by counting the number of appearances of this ID}	HHSEQNUM – Col 1/2	Max value of variable for each household
Geographic	Country of residence	RB020: Country	{This corresponds to the country where the interview is carried out (since all respondents are residents). It is chosen from a list of the ISO two-digit codes of the 31 responding countries}	COUNTRY – col 164/165	This should be provided according to the coding in Annex IV.
Geographic	Region of residence	DB040: Region	NUTS (2 digits / See annex 1)	REGION – col 166/167	This should be provided to the coding system in Annex I, which is based on the Classification of Territorial Units (NUTS). The third and fourth digits of the NUTS code (that is, the level II regional code) should be provided.
Geographic	Degree of urbanization	DB100: Degree of urbanisation	1 densely populated area 2 intermediate area 3 thinly populated area	DEGURBA – col 168	1 Densely-populated area 2 Intermediate area 3 Thinly-populated area
Socio/economic	Self-declared labour status	PL031: Self-defined current economic status	1 Employee working full-time 2 Employee working part-time 3 Self-employed working full-time (including family worker) 4 Self-employed working part-time (including family worker) 5 Unemployed 6 Pupil, student, further training, unpaid work experience 7 In retirement or in early retirement or has given up business 8 Permanently disabled or/and unfit to work 9 In compulsory military community or service 10 Fulfilling domestic tasks and care responsibilities 11 Other inactive person	MAINSTAT – Col 122	1 Carries out a job or profession, including unpaid work for a family business or holding, including an apprenticeship or paid traineeship, etc. 2 Unemployed 3 Pupil, student, further training, unpaid work experience 4 In retirement or early retirement or has given up business 5 Permanently disabled 6 In compulsory military service 7 Fulfilling domestic tasks 8 Other inactive person 9 Not applicable (child less than 15 years) Blank No answer
Socio/economic	Status in employment	PL040: Status in employment	1 self-employed with employees 2 self-employed without employees 3 employee 4 family worker	STAPRO – Col 27	1 Self-employed with employees 2 Self-employed without employees 3 Employee 4 Family worker 9 Not applicable (WSTATOR = 3-5,9) Blank No answer
Socio/economic	Occupation in employment	PL051: Occupation (ISCO-08 (COM))	ISCO Code 08 (2 digits / see annex)	ISCO4D – Col 32/35	ISCO-08 coded at 3 or if possible 4 digit level (see Annex III) 9999 Not applicable (WSTATOR=3-5,9) Blank No answer
Socio/economic	Economic sector in employment	PL111: NACE Rev.2 According to main job	NACE Rev.2 Code (2 digits / See annex 3)	NACE3D – Col 29/31	NACE Rev.2 coded at 2 or if possible 3 digit level (see Annex II) 000 Not applicable (WSTATOR=3-5, 9) Blank No answer
Socio/economic	Highest level of education completed	PE040: Highest ISCED level attained	0 pre-primary education 1 primary education 2 lower secondary education 3 (upper) secondary education 4 post-secondary non tertiary education 5 first stage of tertiary education (not leading directly to an advanced research qualification) 6 second stage of tertiary education (leading to an advanced research qualification)	HATLEVEL – Col 137/138	00 No formal education or below ISCED 1 11 ISCED 1 21 ISCED 2 22 ISCED 3c (shorter than two years) 31 ISCED 3c (two years and more) 32 ISCED 3 a, b 30 ISCED 3 (without distinction a, b or c possible, 2 y+) 41 ISCED 4a, b 42 ISCED 4c 43 ISCED 4 (without distinction a, b or c possible) 51 ISCED 5b 52 ISCED 5a 60 ISCED 6 99 Not applicable (child less than 15 years) Blank No answer
Socio/economic	Net monthly income of the household	HY020 = HY010 – HY120G – HY130G – HY140G where: HY010 = Total household gross income; HY120G = Regular taxes on wealth; HY130G = Regular inter-household cash transfer paid HY140G = Tax on income and social contributions	HY020: Total disposable household income/12 or (HY020 + HY130G)/12	INCDECIL – col 154/155 (Monthly (take-home) pay from main job.)	01-10 Deciles order 99 Not applicable (STAPRO ≠ 3) blank No answer

		EQLS 2011		EQLS 2007	
		Question	Options	Question	Options
Demographic	Sex	HH2. a.	[No question, interviewer notes down sex]	HH2. a.	[No question, interviewer notes down sex]
Demographic	Age in completed years	HH2. b. What was your age last birthday?	[Interviewer notes it down]	HH2. b. What was your age last birthday?	[Interviewer notes it down]
Demographic	Country of birth			Q70. You personally, were you born...?	1 In this country (OUR COUNTRY) 2 In another country that is today member State of the European Union 3 In Europe, but not in a country that is today member State of the European Union 4 In Asia, in Africa or in Latin America 5 In Northern America or in Oceania 6 (Refusal) 7 (Don't know)
Demographic	Country of citizenship at time of data collection	2007, modified in 2011 Q57. What is your citizenship? INT: CODE ALL THAT APPLY	1 <input type="checkbox"/> I am a citizen of [COUNTRY] 2 <input type="checkbox"/> I am a citizen of another EU member state 3 <input type="checkbox"/> I am a citizen of a non-EU country 98 <input type="checkbox"/> (Don't know) 99 <input type="checkbox"/> (Refusal)	Q.69. Are you a citizen of this country [OUR COUNTRY]?	1 Yes 2 No 3 (Refusal)
Demographic	Legal marital status	2003, 2007, 2011 Q31. Could I ask you about your current marital status? Which of the following descriptions best applies to you? Are you ...?	1 <input type="checkbox"/> Married or living with partner 2 <input type="checkbox"/> Separated or divorced and not living with partner 3 <input type="checkbox"/> Widowed and not living with partner 4 <input type="checkbox"/> Never married and not living with partner 98 <input type="checkbox"/> (Don't know) 99 <input type="checkbox"/> (Refusal)	Q.30. Which of the following descriptions best applies to you? Are you ...?	1 Married or living with partner 2 Separated or divorced and not living with partner 3 Widowed and not living with partner 4 Never married and not living with partner 5 (Don't know / No answer)
Demographic	De facto marital status (consensual union)	2003, 2007, 2011 Q31. Could I ask you about your current marital status? Which of the following descriptions best applies to you? Are you ...?	1 <input type="checkbox"/> Married or living with partner 2 <input type="checkbox"/> Separated or divorced and not living with partner 3 <input type="checkbox"/> Widowed and not living with partner 4 <input type="checkbox"/> Never married and not living with partner 98 <input type="checkbox"/> (Don't know) 99 <input type="checkbox"/> (Refusal)	Q.30. Which of the following descriptions best applies to you? Are you ...?	1 Married or living with partner 2 Separated or divorced and not living with partner 3 Widowed and not living with partner 4 Never married and not living with partner 5 (Don't know / No answer)
Demographic	Household composition	HH1. Including yourself, can you please tell me how many people live in this household?	[Interviewer notes down number]	HH1. Including yourself, can you please tell me how many people live in this household?	[Interviewer notes down number]
Geographic	Country of residence	HH0.	Unique ID number (includes reference to country code)	P7 REGION in Interview Protocol	Can be obtained from region
Geographic	Region of residence	Q68. Finally, for internal control purposes, could you please tell me the postcode for this address?	[Interviewer records postcode, or 999998 for don't know or 999999 for refuse]	Sections P6 and P7 in Interview protocol, completed by interviewer after interview has taken place	
Geographic	Degree of urbanization	2003, 2007, 2011 Q49. Would you consider the area in which you live to be...?	1 <input type="checkbox"/> The open countryside 2 <input type="checkbox"/> A village/small town 3 <input type="checkbox"/> A medium to large town 4 <input type="checkbox"/> A city or city suburb 98 <input type="checkbox"/> (Don't know) 99 <input type="checkbox"/> (Refusal)	Q.52. Would you consider the area in which you live to be...?	1 The open countryside 2 A village/small town 3 A medium to large town 4 A city or city suburb 5 (Don't know)
Socio/economic	Self-declared labour status	HH2. d. Which of these best describes your situation? Q7. How many hours do you normally work per week in your main job, including any paid or unpaid overtime?	HH2. d. 1 at work as employee or employer/self-employed 2 employed, on child-care leave or other leave 3 at work as relative assisting on family farm or business * 4 unemployed less than 12 months 5 unemployed 12 months or more 6 unable to work due to long-term illness or disability 7 retired 8 full time homemaker/ responsible for ordinary shopping and looking after the home 9 in education (at school, university, etc.) / student 10 other 11 child is under 14 (NOT ASKED/NOT ON CARD)** ** If paid a formal wage or salary for work in family farm or business, code as 1 ('at work as employee') ** PAPI: If child is under 14, use code 11 Q7. Part time (<35 hours per week) Full time (>=35 hours per week)	HH2. d. Which of these best describes your situation? 1 at work as employee or employer/self-employed 2 employed, on child-care leave or other leave 3 at work as relative assisting on family farm or business * 4 unemployed less than 12 months 5 unemployed 12 months or more 6 unable to work due to long-term illness or disability 7 retired 8 full time homemaker/ responsible for ordinary shopping and looking after the home 9 in education (at school, university, etc.) / student 10 other** ** If paid a formal wage or salary for work in family farm or business, code as 1 ('at work as employee') ** If child is of pre-school age, code as 10	
Socio/economic	Status in employment	ASK IF RESPONDENT HAS PAID WORK (CODES 1-2 AT HH2D) Q2. Are you mainly...?	1 <input type="checkbox"/> Self-employed without employees 2 <input type="checkbox"/> Self-employed with employees 3 <input type="checkbox"/> Employed 4 <input type="checkbox"/> Other 98 <input type="checkbox"/> (Don't know) 99 <input type="checkbox"/> (Refusal)	[Question on status in employment is not available in EQLS 2007 use:] Q3. ASK IF RESPONDENT HAD PAID WORK (CODE 1 AT Q1) What was your last occupation? Or Q4. ASK IF RESPONDENT HAS PAID WORK (CODES 1-2 AT D IN HOUSEHOLD GRID) OR IF EVER HAD PAID JOB (CODE 1 AT Q1) In your job, are/were you ...	Q3 Responses 1-5 = Self-employed Responses 6-14 = Employed Q4. 1 On an unlimited permanent contract 2 On a fixed term contract of less than 12 months 3 On a fixed term contract of 12 months or more 4 On a temporary employment agency contract 5 On apprenticeship or other training scheme 6 Without a written contract 7 Other 8 (Don't know)
Socio/economic	Occupation in employment	2003, 2007, MODIFIED answer categories in 2011 ASK IF RESPONDENT HAS PAID WORK (CODES 1-2 AT HH2D) Q4. What is your current occupation?	Manager 1 (10) Professional 2 (20) Technician or junior professional 3 (30) Clerical support worker 4 (40) Service worker 5 (50) Sales worker 6 (52) Skilled agricultural forestry and fishery worker 7 (60) Craft and related trades worker 8 (70) Plant and machine operator or assembler 9 (80) Elementary occupations 10 (90) Armed forces occupation Q4/Q5 11 (00) (Don't know) 98 (Refusal) 99	Q3. (INT.: ASK IF RESPONDENT HAS PAID WORK (CODES 1-2 AT D IN HOUSEHOLD GRID)) What is your current occupation?	SELF EMPLOYED: Farmer; Fisherman; Professional (lawyer, medical practitioner, accountant, architect etc.); Owner of a shop, craftsmen, other self-employed person; Business proprietors, owner (full or partner) of a company EMPLOYED: Employed professional (employed doctor, lawyer, accountant, architect); General management, director or top management (managing directors, director general, other director); Middle management, other management (department head, junior manager, teacher, technician); Employed position, working mainly at a desk; Employed position, not at a desk but travelling (salesman, driver, etc.); Employed position, not at a desk, but in a service job (hospital, restaurant, police, fireman, etc.); Supervisor; Skilled manual worker; Other (unskilled) manual worker, servant
Socio/economic	Economic sector in employment	ASK IF RESPONDENT HAS PAID WORK (CODES 1-2 AT HH2D) 2007, MODIFIED in 2011 Q6. Do you work in the...?	1 <input type="checkbox"/> Central, regional or local government administration 2 <input type="checkbox"/> Other public sector 3 <input type="checkbox"/> Private sector 4 <input type="checkbox"/> Other 98 <input type="checkbox"/> (Don't know) 99 <input type="checkbox"/> (Refusal)	Q5. ASK IF RESPONDENT HAS PAID WORK (CODES 1-2 AT D IN HOUSEHOLD GRID) OR IF EVER HAD PAID JOB (CODE 1 AT Q1) Did/did you work in the...? (INT.: READ OUT)	1 Private sector 2 Public sector 3 Joint private-public organisation or company 4 Non-for-profit sector, NGO 5 Other 6 Don't know 7 Refusal
Socio/economic	Highest level of education completed	COUNTRY-SPECIFIC ANSWER CATEGORIES SHOWN ON SCREEN – CODES 97, 98 AND 99 ARE THE SAME IN ALL COUNTRIES 2003, Modified in 2007, 2011 Q48. What is the highest level of education you completed? Is this ...?	1 <input type="checkbox"/> No education completed (ISCED 0) 2 <input type="checkbox"/> Primary education (ISCED 1) 3 <input type="checkbox"/> Lower secondary education (ISCED 2) 4 <input type="checkbox"/> Upper secondary education (ISCED 3) 5 <input type="checkbox"/> Post-secondary including pre-vocational or vocational education but not tertiary (ISCED 4) 6 <input type="checkbox"/> Tertiary education – first level (ISCED 5) 7 <input type="checkbox"/> Tertiary education – advanced level (ISCED 6) 97 <input type="checkbox"/> (Completed education abroad) 98 <input type="checkbox"/> (Don't know) 99 <input type="checkbox"/> (Refusal)	Q49. What is the highest level of education you completed? ASK Q490 IF 'OTHER', CODE 98 IN Q49 Q490. Which other? (WRITE DOWN THE ANSWER. CODE AT THE OFFICE- ONE ANSWER ONLY)	1 <input type="checkbox"/> None education completed (ISCED 0) 2 <input type="checkbox"/> Primary education (ISCED 1) 3 <input type="checkbox"/> Lower secondary education (ISCED 2) 4 <input type="checkbox"/> Upper secondary education (ISCED 3) 5 <input type="checkbox"/> Post-secondary including pre-vocational or vocational education but not tertiary (ISCED 4) 6 <input type="checkbox"/> Tertiary education – first level (ISCED 5) 7 <input type="checkbox"/> Tertiary education – advanced level (ISCED 6) 8 <input type="checkbox"/> (Don't know/no answer)
Socio/economic	Net monthly income of the household	[If respondent knows net monthly income] Q63. Please can you tell me how much your household's NET income per MONTH is? If you don't know the exact figure, please give an estimate. INT: WRITE IN AMOUNT OR 999998 FOR DON'T KNOW OR 999999 FOR REFUSAL [If respondent does not know net monthly income] Q64. What letter best matches your household's total net income? Use the part of the show card that you know best: weekly, monthly or annual income.	[If respondent knows net monthly income] Net monthly income amount in national currency: [If respondent does not know net monthly income or refuses, ask him or her to use the part of the card that you know best: weekly, monthly or annual net income]	[If respondent knows net monthly income] Q63. Please can you tell me how much your household's NET income per month is? If you don't know the exact figure, please give an estimate. [If respondent does not know net monthly income] Please tell me the letter that corresponds with your net household income? Use the part of the card that you know best: weekly, monthly or annual net income.	[If respondent knows net monthly income] Net monthly income amount in national currency: [If respondent does not know net monthly income show table of weekly, monthly and annual net incomes]

Annex 10: Comparison of EU LFS, EU-SILC and ESocS variables

The comparisons between the EQLS 2011, the EU LFS 2011 and ESocS 2010 were made by considering the marginal distributions of several variables from each survey. The percentage point differences obtained by subtracting the proportional distribution of the EU LFS variables from those of the EQLS 2011 (i.e., third EQLS – EU LFS) are displayed in the table below.

The distributions of these variables have been calculated for comparable subsamples of the surveys involved. The comparison between EU-LFS 2011 and third EQLS has been carried out for respondents of 25 years of age or more (or 20–64 depending on the format of the data disseminated by Eurostat).

Table A7: Differences in the proportional distribution of EU LFS 2011 & EQLS 2011 variables (EQLS – EU LFS)

LFS 2011			Enumerated random route												Random probability															non-EU27							
			EU27	BG	CY	EE	FR	DE	EL	IT	LT	PT	RO	SK	ES	AT	BE	CZ	DK	FI	HU	IE	LV	LU	MT	NL	PL	SI	SE	UK	TR	HR	MK	KO	RS	ME	IS
Education	Levels 0-2	0.2	-9.6	-0.5	15.6	-11.7	17.3	-5.4	-15.3	-1.1	-2.2	-6.0	-2.7	-14.6	-10.5	-3.0	14.5	-10.1	-7.2	-1.7	-1.8	-0.5	0.1	-4.8	3.2	-0.4	-2.1	-8.0	24.1	-6.4	10.0	-21.7					-15.6
	Levels 3 and 4	-0.4	9.4	-2.4	-6.9	2.9	-8.4	-0.7	9.5	-17.1	2.3	-2.6	3.9	21.2	11.1	3.1	-10.2	3.5	-0.4	6.4	-2.8	-2.9	2.9	-7.7	-6.7	5.6	-2.4	1.0	-24.1	6.7	-11.5	8.1					2.1
	Levels 5 and 6	0.2	0.2	2.9	-8.6	8.8	-8.9	6.1	5.9	18.2	-0.1	8.6	-1.1	-6.7	-0.6	-0.1	-4.4	6.5	7.5	-4.7	4.7	3.4	-3.0	12.6	3.4	-5.2	4.5	7.0	0.0	-0.3	1.5	13.7					13.9
Employment	Employment rate	-5.5	-0.4	-12.3	-6.7	-2.8	-12.4	-5.5	3.5	-3.3	-8.6	-10.4	4.4	-6.3	-2.8	-4.0	5.0	-10.0	-2.0	1.8	-5.4	-1.3	0.1	-0.2	-5.9	-8.1	-10.2	-7.3	-8.9	-16.8	-2.4					-0.2	
	Unemployment rate	1.4	8.3	8.9	1.1	1.0	4.4	0.1	-1.0	-0.1	3.6	-4.4	-3.8	0.3	0.3	2.4	-0.7	0.5	-3.0	1.0	0.9	1.5	-1.5	-1.9	0.7	3.7	6.6	0.6	2.2	-1.8	3.5					-3.1	
Occupation	Manager	0.5	0.1	1.8	-1.0	-1.6	-0.4	-1.8	1.8	1.3	-1.1	3.2	0.2	-2.0	3.0	1.3	-1.5	8.5	5.6	-3.5	5.0	-0.7	1.8	4.4	5.1	0.1	-4.1	3.0	1.4	0.2					8.1		
	Professional	-1.7	-0.7	2.5	6.2	-1.4	-6.6	-4.0	2.8	1.4	0.2	4.6	1.2	-2.2	1.3	-10.4	0.9	-3.8	-6.1	-3.4	-3.7	-0.2	-19.4	-0.5	-4.6	-3.9	-1.8	3.3	1.4	8.4					7.1		
	Technician	-2.1	0.6	-7.5	-3.7	-1.8	5.0	5.5	-4.6	-6.5	0.3	-1.3	-11.3	-4.4	-7.8	-9.6	-6.9	2.5	-0.9	-8.0	1.0	-2.3	-8.0	-6.3	-6.7	-2.7	-2.0	-4.5	-4.3	-2.5					-9.4		
	Clerical	4.0	-0.3	-0.6	-0.3	4.6	4.9	5.7	8.1	5.1	-0.5	9.7	8.3	0.9	4.3	10.2	6.4	-3.9	1.4	4.4	-1.8	2.2	15.6	1.7	2.5	3.2	5.7	5.9	-1.4	1.7					5.2		
	Services	-1.7	-3.6	-0.9	-1.3	-3.3	-1.2	-8.2	-4.7	0.2	-1.9	5.7	-3.2	-2.0	3.4	3.5	-2.0	-3.1	-0.8	-1.6	1.6	-2.2	6.1	-2.3	4.5	-2.8	3.7	-2.0	-1.9	-1.6					-3.9		
	Skilled agriculturer	-1.8	-2.1	-1.8	-0.8	-1.7	-0.8	-4.7	1.7	-1.8	-6.8	-20.7	0.0	1.7	-4.9	-0.4	1.3	-0.8	-0.4	-1.6	0.1	-0.6	-0.4	1.7	0.1	-7.9	-5.3	-0.4	0.9	-10.3					-1.8		
	Craft and related	-0.7	3.5	4.1	-1.3	2.4	-2.1	-4.1	-8.4	1.5	5.8	1.2	2.4	-2.3	-0.2	2.1	-1.1	-0.7	2.9	11.9	-4.1	1.5	-1.0	-2.6	-2.1	5.4	0.0	-5.5	-0.5	1.0					-3.7		
	Plant and machine	-4.1	-8.0	-3.3	-7.5	-5.5	-5.6	-4.8	-4.9	-9.6	-6.1	-3.5	-2.3	0.4	-4.9	-1.4	-8.8	-2.0	-3.6	-8.7	-3.3	-6.5	-2.0	-1.5	-1.7	-4.2	-5.9	-4.1	-1.7	-6.0					-3.7		
	Elementary	-1.1	0.5	-9.2	4.2	1.3	-2.1	4.5	-3.3	1.8	-0.2	-5.9	-1.1	-3.3	-4.8	0.3	0.8	-2.3	-1.4	0.5	-1.1	-1.6	2.5	-4.5	-1.9	2.5	-1.9	-0.9	-0.5	-1.9					-1.1		
	Armed forces	0.0	-0.2	1.4		-0.6	-0.1	1.7	0.4	0.8	-0.2	-0.2	0.2	-0.3	0.4	-0.3	-0.2	-0.3	-0.3	0.1	-0.1				0.1	-0.3	-0.6	0.4	0.1	-0.6							
Work time	Part time	0.8	2.2	6.2	-1.9	-1.0	-3.8	9.6	1.0	0.9	-2.3	1.1	0.6	6.4	-7.7	1.5	4.9	-3.2	1.1	0.8	7.5	2.7	4.1	2.2	-4.4	0.3	-4.2	-5.0	8.1	-0.7	-3.4					-3.8	

Notes: There is no data for the number of cases with Occupation Armed forces for EE, LV, LU and MT in the EU LFS 2011.

ISCED levels 0–2: pre-primary, primary and lower secondary education; ISCED levels 3–4: upper secondary and post-secondary non-tertiary education;

ISCED levels 5–6: first and second stage of tertiary education.

'Part time' for EQLS defined as <35 hours worked per week.

The percentage point differences obtained by subtracting the proportional distribution of the EU-SILC variables from those of the EQLS 2011 (i.e. third EQLS – EU-SILC) are displayed in the table below. The comparison with EU-SILC 2010 for all the respondents 18 or over (or respondents aged 18–64 depending on the availability of the data disseminated by Eurostat).

Table A8: Differences in the proportional distribution of EU-SILC 2011 & EQLS 2011 variables (EQLS – EU-SILC)

EU-SILC 2011*		Enumerated random route												Random probability																non-EU27								
		EU27*	BG	CY	EE	FR	DE	EL	IT	LT	PT	RO	SK	ES	AT	BE	CZ	DK	FI	HU	IE*	LV	LU	MT	NL	PL	SI	SE	UK	TR	HR	MK	KO	RS	ME	IS		
Education	Levels 0-2	2.6	-11.9	-2.6	16.2	-5.0	16.5	0.7	-16.0	-4.8	-3.3	-4.1	-1.6	-12.7	-11.4	1.8	15.1	-9.0	-6.1	-2.1	-6.9	-3.8	-11.1	-3.8	6.7	-0.8	-4.2	-0.1	32.9		11.3						-12.8	
	Levels 3 and 4	-2.4	12.0	-4.4	-7.6	-3.0	-9.1	-2.9	10.6	-12.4	2.1	-2.4	6.0	20.3	12.6	3.4	-11.1	2.6	-0.2	5.6	2.1	0.6	6.1	-9.8	-7.8	4.5	-2.0	-4.6	-32.1		-14.3						-1.5	
	Levels 5 and 6	-0.2	-0.1	6.8	-8.7	8.0	-7.3	2.1	5.3	17.1	1.2	6.5	-4.4	-7.5	-1.2	-5.2	-4.0	6.3	6.3	-3.5	4.7	3.3	5.0	13.6	0.9	-3.7	6.2	4.7	-0.9		3.0						14.3	
Employment	Employment rate	-4.5	-0.8	-10.9	-2.4	-1.7	-8.9	-4.8	3.6	-1.5	-7.8	-12.6	5.1	-5.9	2.4	-3.3	6.4	-6.8	3.5	3.0	1.2	3.9	0.4	2.3	-3.0	-7.5	-7.8	-6.8	-8.8		4.5						-1.2	
	Unemployment rate	2.8	5.6	10.8	2.7	2.7	3.5	5.2	0.0	0.8	4.9	-0.3	-0.7	5.4	-1.8	-0.5	-1.1	2.6	-3.8	3.4	2.5	1.0	-0.7	-0.2	-1.5	5.9	6.6	3.4	5.5		-2.3						-2.0	
Occupation	Manager	-1.0	1.2	4.3	-0.4	-2.3	-0.1	-4.8	-1.8	2.6	0.7	3.1	0.7	-3.3	0.6	-0.8	-0.9	5.8	0.9	-2.2	-3.3	2.7	-0.3	5.1	1.7	0.5	-0.8	3.8	-1.4		1.9						9.2	
	Professional	4.1	3.5	4.9	8.9	3.4	0.8	2.0	7.7	7.1	5.6	8.0	1.6	2.4	5.2	-5.6	3.0	9.1	1.4	0.1	4.8	0.7	0.5	4.8	1.0	1.1	4.4	10.8	13.4		13.7						9.3	
	Technician	-1.8	0.5	-6.6	-2.2	1.8	2.9	6.1	-3.6	-3.4	0.7	-2.1	-12.9	-2.0	-5.1	-10.3	-7.3	-12.7	2.0	-4.3	5.5	-2.7	-8.3	-5.0	-9.2	-2.1	-5.7	-6.7	-3.7		-6.4						-4.8	
	Clerical	1.1	-0.5	-4.2	-2.0	2.4	-1.0	2.5	9.8	4.8	-0.8	8.1	5.7	-0.7	4.0	7.9	6.6	-5.0	1.2	2.6	-2.2	1.2	12.6	1.3	-0.6	2.1	4.0	2.9	-5.0		1.0						1.6	
	Services	1.9	3.6	2.3	0.9	0.8	1.6	-1.4	-0.2	1.6	-0.6	6.9	-0.6	2.5	3.8	4.4	-0.2	7.2	-0.1	1.0	-1.9	-1.5	4.3	0.4	6.0	-0.8	3.9	-2.5	-2.6		-2.0						-8.2	
	Skilled agriculturer	-2.4	-4.5	-1.4	-1.8	-4.1	-0.6	-7.3	-0.4	-1.2	-5.2	-17.7	-0.5	0.2	-3.8	0.3	0.1	-2.6	-3.0	-2.8	3.4	-0.1	-1.4	1.2	1.0	-8.5	-1.8	-1.1	0.9		-1.7						-1.9	
	Craft and related	-2.8	0.6	1.9	-0.5	-0.9	-0.7	-6.8	-11.1	-2.3	1.1	-2.7	2.8	-4.4	-0.6	0.4	-1.5	-2.5	1.9	9.8	-4.1	-0.8	-4.0	-2.5	-0.9	2.9	0.1	-5.8	0.2		-5.6						-0.5	
	Plant and machine	-6.5	-7.0	-5.4	-7.6	-8.0	-11.4	-5.2	-7.5	-9.4	-8.1	-5.1	-1.0	-1.4	-4.8	-3.7	-8.3	-2.1	-3.8	-7.9	-2.9	-6.2	-4.2	-8.9	-2.7	-4.6	-11.6	-6.1	-3.5		-10.3						-3.4	
	Elementary	-2.2	-7.2	-11.0	0.0	-0.6	-1.2	3.3	-5.1	-6.9	-4.7	-7.6	-2.4	-6.6	-9.3	1.3	-2.3	-2.8	-3.8	-5.9	-7.5	-4.4	-3.7	-6.1	-2.5	-1.4	-3.6	-1.3	-5.8		-2.0							-5.6
	Armed forces	0.3	-0.4	1.8	0.2	-0.4	0.2	2.0	0.6	0.9	0.5	-0.1	0.2	-0.4	0.4	0.3	-0.3	-0.6	-0.3	-0.2	0.1	0.7	0.2	-0.4	0.1	-0.2	-0.8	0.3	0.4		-1.0							0.0
Work time	Part time	1.6	1.9	7.3	-1.2	-0.6	-4.7	6.4	5.9	2.9	1.0	1.2	2.3	10.7	-3.8	1.5	6.5	7.2	6.4	3.8	3.2	5.4	2.9	6.7	1.6	0.0	0.3	-0.4	7.0		2.5							-0.8
At risk of poverty		1.2	-6.9	-2.1	-3.3	1.8	0.9	-3.2		-6.9	0.3	0.7	-2.6	-2.3	1.1	-4.0	0.9	4.6	3.8	8.0		-2.9	0.9	-4.0	4.7	1.3	3.6	3.9	8.1		-2.2							

Notes: ISCED levels 0–2: pre-primary, primary and lower secondary education; ISCED levels 3–4: upper secondary and post-secondary non-tertiary education; ISCED levels 5–6: first and second stage of tertiary education.

*Ireland does not have 2011 data available and has been analysed using 2010 data. The EU27 aggregate (Eurostat 2011 estimate) is also affected by the lack of 2011 data for Ireland.

'Part time' for EQLS defined as <35 hours worked per week.

The percentage point differences obtained by subtracting the proportional distribution of the EU-SILC variables from those of the ESocS 2010 (i.e. third EQLS – ESocS 2010) are displayed in the table below. All the comparisons with the ESocS have been made for respondents 18 or over.

Table A9: Differences in the proportional distribution of ESocS 2010 & EQLS 2011 variables (EQLS – ESocS)

ESocS 2010		Enumerated random route												Random probability																non-EU27						
		EU27	BG	CY	EE	FR	DE	EL	IT	LT	PT	RO	SK	ES	AT	BE	CZ	DK	FI	HU	IE	LV	LU	MT	NL	PL	SI	SE	UK	TR	HR	MK	KO	RS	ME	IS
Education	Levels 0-2		-10.9	-8.4	12.8	-0.5	19.7	4.1			-9.0		0.7	-13.4	4.5	18.1	-7.3	-10.1	0.2	-5.4					-7.2	-23.7	-2.3	-4.2	16.0	12.9						
	Levels 3 and 4		13.7	-7.8	-11.5	-16.5	-18.7	-12.6			3.4		7.3	16.3	0.1	-18.9	3.5	-6.6	0.8	-12.4					-0.2	29.9	-6.1	-8.6	-25.5	-16.2						
	Levels 5 and 6		-2.8	16.2	-1.3	16.9	-1.0	8.5			5.6		-8.0	-2.9	-4.6	0.8	3.8	16.6	-1.1	17.8					7.4	-6.2	8.4	12.8	9.5	3.3						
Employment	Employment rate		7.3	-16.7	7.3	5.8	2.2	-13.1			27.6		4.8	6.6	-3.6	3.6	-3.9	7.3	-2.8	10.8					1.0	-12.0	-3.6	3.0	6.3	16.4						
	Unemployment rate		0.6	8.6	2.1	-2.5	4.4	3.8			1.2		2.7	-1.4	4.5	-1.8	0.5	0.6	3.4	6.2					2.6	4.1	7.6	1.5	4.3	-7.9						
Occupation	Manager		-3.8	4.4	-2.5	-5.9	-0.7	-8.5			3.4		-4.0	-4.5	-3.7	0.1	1.5	-0.5	-0.8	1.9					-2.2	-13.5	-1.4	3.0	-2.3	1.8						
	Professional		4.9	9.1	8.0	1.7	-5.3	3.8			7.9		-1.6	3.0	-7.8	3.2	7.0	-0.6	0.3	1.4					0.8	2.9	3.3	10.9	15.2	8.7						
	Technician		-2.3	-2.4	0.8	-4.4	4.8	7.2			2.8		-6.2	-4.6	-7.9	0.9	-0.4	1.3	-1.8	4.7					-10.7	-1.6	-4.3	-8.1	-1.9	-2.1						
	Clerical		-0.4	-4.2	-2.0	3.4	4.3	5.0			-0.4		0.1	-1.9	9.4	1.5	-1.6	2.6	-0.9	2.4					-0.4	2.7	5.0	4.0	-4.9	-0.5						
	Services		3.7	-1.6	-1.3	-0.7	2.2	-4.0			-7.8		1.0	2.2	5.8	-2.3	-5.4	0.8	-0.3	-4.1					7.1	-0.3	3.4	-3.3	-4.4	-1.8						
	Skilled agriculturer		8.9	11.4	3.4	7.6	7.9	4.9			9.1		5.8	14.7	4.9	12.2	5.8	-0.3	8.9	11.1					7.0	7.7	10.9	4.8	8.1	14.2						
	Craft and related		6.1	-3.6	0.2	2.5	-4.8	-7.5			-0.3		5.6	-4.3	3.0	-2.0	0.2	3.4	13.2	-3.5					0.7	9.3	-3.3	-3.8	1.3	-7.1						
	Plant and machine		-10.5	-3.0	-1.5	-5.1	-6.0	-5.5			-9.7		2.0	2.5	-2.3	-10.0	-3.1	-3.2	-3.7	-5.9					-0.9	-5.6	-7.2	-5.2	-4.9	-5.2						
	Elementary		-6.6	-11.9	-5.3	0.8	-2.1	1.3			-5.6		-2.9	-7.2	-1.2	-3.6	-3.6	-3.4	-15.0	-8.2					-2.2	-1.6	-6.1	-2.6	-6.4	-8.2						
	Armed forces		0.0	1.9	0.3	0.1	-0.2	3.3			0.6		0.3	0.0	-0.3	0.1	-0.3	-0.1	0.1	0.1					0.6	0.1	-0.3	0.1	0.0	0.2						
Work time	Part time		-2.4	-1.2	-4.7	-2.6	-3.1	2.8			-4.6		-1.3	4.9	0.0	2.5	-7.3	-1.8	-0.1	-0.7					0.9	-4.2	-3.4	-5.5	-0.5	-1.5						

Notes: ISCED levels 0–2: pre-primary, primary and lower secondary education; ISCED levels 3–4: upper secondary and post-secondary non-tertiary education;

ISCED levels 5–6: first and second stage of tertiary education.

'Part time' for EQLS and ESocS defined as <35 hours worked per week.

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