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2008 COMPARATIVE EU FINAL QUALITY REPORT

Version 3 – July 2011

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0. INTRODUCTION

Commission Regulation (EC) No 1177/2003 concerning Community statistics on income and living conditions (EU-SILC) in its Article 16 states the following:

> *1. Member States shall produce by the end of the year N+1 an intermediate quality report relating to the common cross-sectional EU indicators based on the cross-sectional component of year N.*
>
> *Member States shall produce by the end of year N+2 final quality reports that cover both cross-sectional and longitudinal components in relation to the year of the survey N, focusing on the internal accuracy.* […]
>
> *2. The Commission (Eurostat) shall produce by the end of June N+2 a comparative intermediate quality report relating to the common cross-sectional EU indicators of year N.*
>
> *The Commission (Eurostat) shall produce by 30 June N+3 a comparative final quality report that covers both cross-sectional and longitudinal components in relation to the year of the survey N.* […]

In 2008 the EU-SILC instrument covered 30 countries, that is, all EU Member States plus Iceland, Norway, Turkey and Switzerland. This document analyses all 2008 final National Quality Reports delivered to Eurostat. All EU Member States, except France for which no 2008 final report has been received yet, are consequently included, as well as Iceland and Norway. Results for Switzerland and Turkey are often not presented neither in this report due to the lack of information received from these two countries (no transmission yet of the 2008 final quality report).

The objective is to evaluate the quality of the instrument from a European point of view, by establishing between-country comparisons of some of its key quality dimensions.

The quality aspects described in this document are those specified in the Commission Regulation N° 28/2004 (Annex IV) as regards the detailed content of final quality reports to be produced by Eurostat.

1. RELEVANCE

The relevance of an instrument has to be assessed in the light of the needs of its users. As for EU-SILC the main users are the following:

- Institutional users like DG EMPL of the Commission and the Social Protection Committee, in charge of the monitoring of social protection and social inclusion, or other Commission services;
- Statistical users in Eurostat or in Member States National Statistical Institutes to feed sectoral or transversal publications such as the Annual Progress Report on the Lisbon Strategy (structural indicators), the Sustainable Development Strategy monitoring report, the Eurostat yearbook and other reports;
- Researchers having access to microdata; and

- End users – including the media - interested in living conditions and social cohesion in the EU.

The EU-SILC instrument is the main source for comparable indicators for monitoring and reporting on living conditions and social cohesion at the EU level. It has been moreover recognized by Heads of States and Governments as the data source for the Europe 2020 strategy headline target on poverty[1].

The relevance of the instrument is very high among all users as it was shown during the 2010 International Conference on Comparative EU Statistics on Income and Living Conditions held in Warsaw (25-26 March 2010). Let us mention the book entitled "Income and living conditions in Europe", available on the Eurostat website (http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/publication?p_product_code=KS-31-10-555), which represents the major findings from the Conference.

In order to assess how the users perceive the EU-SILC process, an evaluation of this instrument (a so-called 'rolling review') was launched in 2010. This rolling review consisted in a thorough assessment of users' and partners' satisfaction, use of resources for Eurostat and for Member States, response burden, etc. The report from this exercise is now available on the Eurostat website (http://epp.eurostat.ec.europa.eu/portal/pls/portal/!PORTAL.wwpob_page.show?_docname=2398265.PDF).

2. ACCURACY

The concept of accuracy refers to the reliability of estimates computed from a sample rather than from the entire population. This section dwells on methodological features of the EU-SILC samples surveyed in each country and intends to draw a picture of their relevance for estimation purposes.

2.1. Sample design

As mentioned above, the EU-SILC instrument covered in 2008 thirty-one countries. Among them, two carried out the survey for the second time (RO and CH), two others for the third time (BG and TR), while twelve conducted it for the fourth time (CZ, DE, CY, LV, LT, HU, MT, NL, PL, SI, SK, UK) and fifteen even for five or more years (BE, DK, EE, IE, EL, ES, FR, IT, LU, AT, PT, FI, SE, IS, NO).

The table hereafter summarizes the sampling design used in each country for the 2008 operation. More information on the sampling design by country is presented in annex 1 of this report.

[1] See EPSCO Council Conclusions, 7-8 June 2010 (Council document 10560/10)

Table 1: Sampling design by country (2008)

Sampling unit	Sampling design	Country
Dwellings/ Addresses	Simple random sampling	MT
	Stratified random sampling	LU, AT
	Stratified random sampling from former participants of micro census	DE*
	Stratified multi-stage sampling	CZ, ES, PL, PT, RO
	Stratified multi-stage systematic sampling	FR, LV, UK, NL
Households	Stratified random sampling	CY, SK
	Stratified multi-stage sampling	IE
	Stratified multi-stage systematic sampling	BE, BG, EL, IT
	Stratified sampling according to different design by rotational group	HU
Individuals	Simple random sampling	DK, IS
	Systematic sampling	SE
	Stratified random sampling	LT
	Stratified and systematic sampling	EE, NO
	Stratified two-phase sampling	FI
	Stratified two-stage systematic sampling	SI

Source: National Final Quality Reports 2008
* For the first time in 2008 Germany did not use at all quota samples

The sampling unit can be the address, the dwelling, the household or the individual according to the design chosen by the country. In the case of a sample of dwellings or addresses, if more than one household share the same dwelling, dwellings must be regarded as clusters of households. All the households and all persons aged 16 and over living in each household are eligible for the survey. As showed by the table above, thirteen out of thirty countries selected a sample of dwellings or addresses. Additional eight countries selected a sample of household for the EU-SILC 2008 operation. Households are clusters of individuals and all the members aged 16 and over at the end of the income reference period of a selected household are eligible for inclusion in the sample.

Countries that carry out a sampling of individuals, instead, only select persons of age 16 and over and the household is defined as the household of which the selected persons is member at the beginning of the survey. Nordic countries are used to select a sample of individual as well as Estonia, Lithuania and Slovenia.
EU-SILC data are collected by interview, except in seven countries where most or part of the information is administrative, gathered from national registers. These so-called 'register countries' are Denmark, the Netherlands, Slovenia, Finland, Sweden, Iceland and Norway.

Twelve countries (BE, BG, EE, EL, FR, IT, LV, NL, SE, SI, UK, NO) have reported to use systematic sampling. The systematic sampling was often combined with a stratified (multi-stage)

random sampling. Only one country (SE) used a systematic sampling without any stratification or clustering. Three countries (MT, DK, IS) used a simple random sampling.

All of the countries have adopted the 4-year rotational design recommended by Eurostat[2]. Norway and France have longer panel duration (8 and 9 years respectively) and Luxembourg has a pure panel supplemented with a new sample each year. More information is presented in annex 1.

2.2. Sampling errors

This section was largely developed in the 2008 Comparative EU Intermediate Quality Report. In addition, annex 2 of the 2006 Comparative EU Final Quality report presents information on the concept of sampling errors, the technical methodology for their estimation and the obtained results for a subset of countries.

2.3. Non-sampling errors

Commission Regulation (EC) No 28/2004 specifies the information on non-sampling errors which should be presented in national quality reports: sampling frame and coverage errors, measurement and processing error and non-response errors. All these sections were largely discussed in the 2008 Comparative EU Intermediate Quality Report. This section focuses on the unit non-response for the EU-SILC longitudinal component.

2.3.1. Non-response errors

Non-response means a failure to obtain a measurement on one or more study variables for one or more sample units. Non-response errors occur when the survey fails to get a response to some or all of the questions. Non-response causes both an increase in variance, due to the decrease in the effective sample size and/or due to the use of imputation and, more importantly, causes bias as the non-respondents and respondents generally differ with respect to the characteristic of interest.

Non-response is a potential source of bias particularly if the missing data mechanism is not what has been termed as 'missing at random'. For instance, one might expect persons with high incomes to be more reluctant to give income information in an interview, thus rendering the upper income class under-represented in the sample and the estimates downwardly biased.

In particular, this section focuses on the analysis of the achieved sample size. The following tables present the achieved sample size for the longitudinal sample. For the household sample size (table 2), the household identification numbers are taken from the D-file (register file) with the corresponding year of interview. Starting with 2005 the different number of years is counted. The interviewed acceptance is also checked (DB135 should be equal to 1). When this number of years is equal to four, the household is added in the number of households which have been in the sample for four years. Similarly for 2006 the number of households that have been three years in the sample is counted; and idem for 2007.

[2] Rotational design refers to the sample selection based on a number of subsamples or replications, each of them similar in size and design and representative of the whole population. From one year to the next, some replications are retained, while others are dropped and replaced by new replications.

The achieved sample size in terms of individuals is presented in table 3 and is based on the R-file. The different number of years when an individual is present in the file is counted, similarly as it has been done for the households for constructing table 2. Here the completeness of the information is checked through the variable RB250. Results are given for the total population as well as for the population of 16+. Breakdown according to sample persons and co-residents are also presented in the table.

Table 2: Achieved household sample size (longitudinal 2008 dataset)

	SUB-SAMPLE		
	2007-08	**2006-07-08**	**2005-06-07-08**
BE	4 182	2 510	1 187
BG	2 362	1 528	:
CZ	9 112	6 593	3 447
DK	3 291	1 930	912
DE	9 526	5 969	2 807
EE	3 191	1 808	474
IE	2 870	1 394	544
EL	3 965	2 498	1 081
ES	8 738	5 147	2 410
FR	8 206	6 323	4 650
IT	14 198	8 689	4 058
CY	2 465	1 599	765
LV	3 208	1 851	836
LT	3 528	2 139	755
LU	3 221	2 818	2 406
HU	6 153	3 645	1 558
MT	2 296	1 344	555
NL	6 716	3 823	2 271
AT	3 772	2 306	1 058
PL	9 931	6 437	3 072
PT	2 989	1 763	850
RO	5 868	:	:
SI	5 504	3 265	1 482
SK	3 686	2 275	1 078
FI	4 743	3 108	1 555
SE	4 464	2 561	1 268
UK	5 855	3 538	1 670
IS	1 663	1 020	501
NO	2 914	2 724	2 659

Source: Micro-database (April 2011)

Table 3: Achieved individual sample size (longitudinal 2008 dataset)

	2007/2008				2006/2007/2008				2005/2006/2007/2008			
	All present	16+ present	Sample person present	Co-resident present	All present	16+ present	Sample person present	Co-resident present	All present	16+ present	Sample person present	Co-resident present
BE	10092	7996	8102	1990	6009	4767	4851	1158	2816	2234	2308	508
BG	7096	5732	6012	1084	4427	3571	3801	626	:	:	:	:
CZ	21749	18047	18337	3412	15614	12863	13262	2352	8074	6661	6947	1127
DK	8180	6321	3291	4889	4691	3590	1930	2761	2176	1657	912	1264
DE	20773	17311	17567	3206	12850	10715	11007	1843	5989	4952	5134	855
EE	8906	7283	7518	1388	4982	4030	4239	743	1219	993	1048	171
IE	6938	5321	5644	1294	3264	2483	2670	594	1233	936	1019	214
EL	10399	8477	8687	1712	6539	5235	5460	1079	2782	2205	2342	440
ES	24668	20030	20288	4380	14385	11670	11976	2408	6653	5413	5662	990
FR	20242	15706	19621	621	15518	11893	15235	283	11363	8672	11252	111
IT	35993	30206	30424	5569	21934	18313	18637	3297	10312	8553	8840	1472
CY	7495	5922	5971	1524	4840	3789	3874	966	2337	1802	1878	459
LV	7984	6490	6715	1269	4500	3626	3800	700	1954	1566	1676	278
LT	8914	7509	7713	1201	5280	4400	4591	689	1930	1540	1627	303
LU	8620	6457	8302	318	7413	5573	7227	186	6188	4751	6069	119
HU	15787	12841	13347	2440	9303	7589	7923	1380	4003	3222	3382	621
MT	6608	5313	5452	1156	3835	3077	3196	639	1543	1241	1297	246
NL	16901	12708	6716	10185	9623	7133	3823	5800	5836	4195	2271	3565
AT	9257	7269	7276	1776	5544	4387	4443	988	2561	2011	2053	458
PL	30184	24018	24774	5410	19388	15254	16039	3349	9134	7112	7626	1508
PT	8063	6777	6931	1132	4784	3997	4148	636	2294	1891	1996	298
RO	14470	12440	12700	1770	:	:	:	:	:	:	:	:
SI	17944	15019	5504	12440	10406	8732	3265	7141	4679	3904	1482	3197
SK	10807	9284	9413	1394	6437	5515	5605	832	2993	2554	2641	352
FI	12104	9188	4743	7361	7677	5808	3108	4569	3735	2768	1555	2180
SE	11319	8577	4489	6830	6251	4740	2579	3672	2972	2251	1277	1695
UK	13845	10734	10959	2886	8150	6308	6498	1652	3819	2943	3059	760
IS	4841	3519	1663	3178	2816	2033	1020	1796	1339	949	501	838
NO	7509	5377	5701	1808	6782	4851	5220	1562	6357	4540	4948	1409

Source: Micro-database (April 2011)

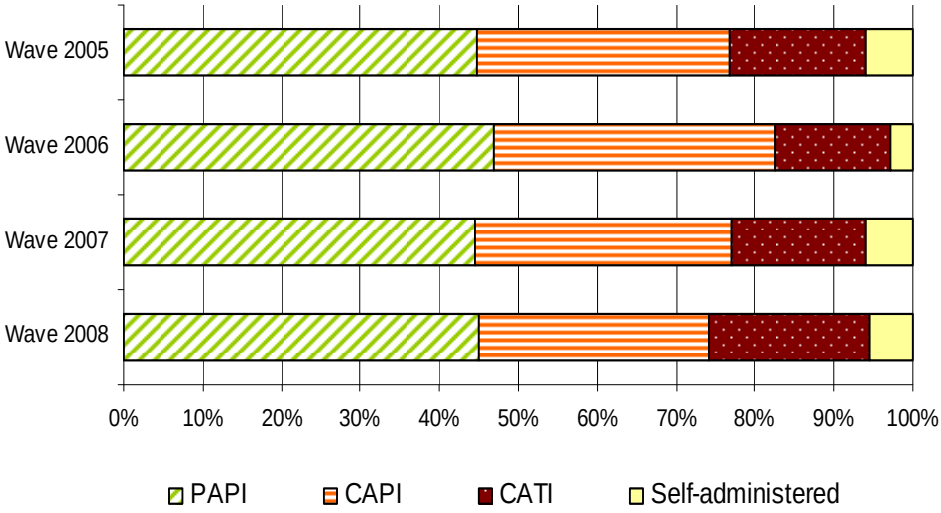
2.4. Mode of data collection

The EU-SILC Regulation allows some degree of flexibility to countries regarding the mode of data collection. The information can be either extracted from registers or collected from interviews. For the interview, four different ways to collect the data are possible:

- Paper-Assisted Personal Interview (PAPI)
- Computer-Assisted Personal Interview (CAPI)
- Computer-Assisted Telephone Interview (CATI)
- Self-administered questionnaire.

Countries may use only one method or a combination of various methods. In the EU-SILC legal basis, priority is given to face-to-face personal interviews (PAPI or CAPI) over the other modes of data collection. The following graph represents the different modes of data collection used by the countries for each year of the 2008 longitudinal dataset, this means for the years 2005 to 2008, on the basis of the people present in the 2008 longitudinal file[3]. Percentages by country for each mode of data collection as well as for proxy interviews for the 2005, 2006, 2007 and 2008 longitudinal component can be found in annexes 2 and 3.

Figure 1: Mode of data collection (EU27[4] plus IS, NO; %;) (longitudinal 2008 dataset)



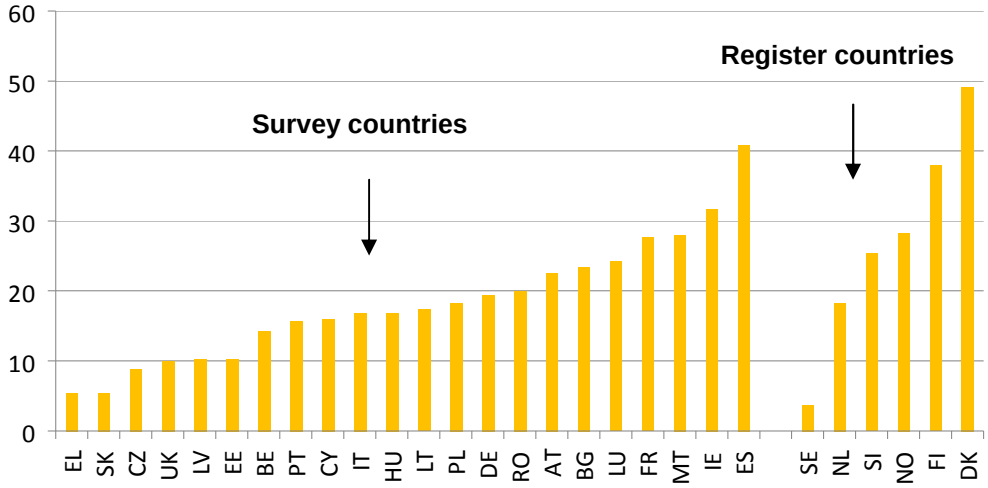
Source: Micro-database (April 2011)

The use of CAPI is declining over the years since 2006 while the use of CATI has increased over the same period. The use of PAPI and self-administered is stable around respectively the 45 % and 5% except for 2006 where the self-administered questionnaires were less frequent. Face-to-face interviews had been always the most used (either in paper or with a computer).

Proxy interviewing is permitted if the proxy rate is kept as limited as possible. Some countries that encountered rather high non-response rates chose to use proxies to ensure a certain degree of accuracy in their data. In addition, in countries that use the selected respondent type of survey, the household respondent (in most cases selected respondent) is asked for information about all household members, therefore, these countries have a high percentage of proxy interviews concerning personal interviews. The following graph presents the percentage of proxies in 2008 for the longitudinal component.

[3] Figures are obtained adding up the number of interviews carried out by each mode of data collection by all countries and dividing it by the total of interviews carried out in all countries.
[4] Countries are included for the years when there is data for the longitudinal operation.

Figure 2: Percentage of proxy interviews by country (longitudinal 2008 dataset)



Source: Micro-database (April 2011)

As we can see in the graph above, the percentage of proxy interviews varies greatly among countries. In addition, for some countries there are also large year-to-year changes (see data in the annex 3). In the register countries, the percentage of proxies varies from below 3% in Sweden to around 50% in Denmark.

2.5. Imputation procedure

According to EU-SILC Framework Regulation, "Member States shall transmit to the Commission (Eurostat) in the form of micro-data files weighted cross-sectional and longitudinal data which has been checked, edited and imputed in relation to the income".

Countries should implement imputation procedure for their income variables but flexibility is given to them in order to let them choose the method which is the most appropriate in their case. Next table indicates the types of imputation techniques used by countries, as reported in the national quality reports.

Table 4: Imputation techniques used by country

	Mean/median imputation	Regression model	Hot deck	Cold deck	Other methods
BE	Y	Y	Y	N	Y
BG	N	Y	N	N	Y
CZ	N	N	Y	N	N
DK	No imputation procedure was applied				
DE	Y	Y	N	N	Y
EE	Y	Y	Y	Y	Y
IE	N	N	Y	N	N
EL	No imputation procedure was applied				
ES	N	Y	N	N	N

	Mean/median imputation	Regression model	Hot deck	Cold deck	Other methods
FR	N	Y	Y	N	Y
IT	N	N	Y	N	N
CY	N	N	N	Y	Y
LV	N	N	Y	N	N
LT	Y	Y	Y	Y	Y
LU	N	Y	Y	Y	N
HU	Y	Y	N	N	Y
MT	Y	Y	Y	N	Y
NL	Y	N	N	N	N
AT	N	Y	Y	Y	Y
PL	N	Y	Y	N	Y
PT	N	Y	N	N	N
RO	N	N	Y	N	Y
SI	N	N	Y	Y	Y
SK	N	Y	N	N	N
FI	Y	Y	Y	N	Y
SE	Not reported/Not done				
UK	N	N	Y	N	Y
IS	N	Y	N	N	Y
NO	N	N	N	N	Y

Source: National Final Quality Reports 2008

2.6. Imputed rent

The imputed rent (HY030) refers to the value that shall be imputed for all households that do not report paying full rent, either because they are owner-occupiers or they live in accommodation rented at a lower price than the market price or because the accommodation is provided rent free. This variable is mandatory from 2007 onwards.

About the method to use to estimate the imputed rent, Eurostat recommended, for the sake of comparability among countries, to apply a regression/stratification method except for duly justified cases, in particular when the private rental market represents less then 10% of the market or when regression method is statistically unreliable. In these cases, countries are invited to follow the user cost method.

The following table summarizes the information received from countries through their national quality reports 2008 and bilateral exchanges between them and Eurostat.

Table 5: Method used to estimate the imputed rent by country (2008 operation)

	Method
BE	Heckman regression model (correction of selection bias)
BG	Stratification method based on actual rents, with correction of selection bias
CZ	Subjective method
DK	Rental equivalence model
DE	Stratification method
EE	User cost method
IE	Stratification method
EL	Stratification method
ES	Stratification method
FR	Regression method
IT	Regression model with Heckman correction
CY	Heckman regression model, with correction of selection bias
LV	Regression method
LT	1 step. Stratification method; 2 step. Regression method
LU	Heckman regression model, with correction of selection bias
HU	Regression method
MT	Stratification method (using auxiliary information)
NL	Regression model
AT	Rental equivalence model with ten regression models
PL	Regression method
PT	Regression method from 2008 (self assessment method in 2007)
RO	Stratification method
SI	Stratification method
SK	User-cost method
FI	Stratification method
SE	User-cost method
UK	Hedonic regression modelling, incorporating Mill's correction (based on Heckman method)
IS	Market value of dwellings received from housing registers
NO	Stratification method

Source: National Final quality reports 2008 and bilateral exchanges between Eurostat and the countries

From Table 5 it can be concluded that in the 2008 EU-SILC operation Eurostat recommendations have been followed by nearly all countries. This corresponds to a concrete improvement compared to the 2007 operation.

Out of the 27 EU Member States plus Iceland and Norway, 24 countries used in the 2008 operation the rental equivalence model (either regression, either stratification approach). BG used a stratification method based on actual rents and RO estimated the imputed rent from the Household Budget Survey using the stratification method. About PT, starting from the 2008 operation, the imputed rent is calculated on the basis of a linear regression. In 2007, the self assessment method was used.

EE, SK and SE have developed a user cost method, which they applied for both the 2007 and 2008 operations, as the share of market rents is very small in their country. This practice is in line with the Eurostat recommendations.

The only EU Member State which did not strictly follow the Eurostat guidelines is the Czech Republic. But, this country investigated deeply the issue and the main problem, which makes the rent imputation difficult, is that there is too low share of households paying market rent in this country. Only 5.5% of tenants pay market rent in the EU-SILC sample. 17.6% of households included in the sample pay rent that is regulated by the Czech government. They tested the 3 following methods: subjective method, stratification method, Heckman model, and finally they decided for subjective method, because it seemed best in the Czech conditions.

Variables taken into account are rather country-specific however some variables like localisation and urbanisation, size of dwelling (in square meter and in number of rooms), amenities (bathroom, balcony, garden, etc.) are common to all models.

2.7. Company cars and non-cash employee income

From 2007 on, PY020 refers to "Other non-cash employee income" and PY021 to "Income from private use of company car". For the employee non-cash income (PY020) divergences are found in Germany, Ireland, France and the Netherlands; while for company car (PY021) Ireland reported some differences with the standard definition and France and Portugal did not fill in this variable. The following comments were received from countries:

Ireland: "The Irish EU-SILC questionnaire asks any non public service respondent who received employee income in the income reference period whether he/she received a non-cash benefit from his/her employer. If the respondent indicated that he/she received a company car for private use, the respondent was asked for the original market value (OMV) of the car. The recipient was also asked the number of months that he/she had private use of the company car in the income reference period and the number of business miles travelled. If the respondent didn't know the list price of the car he/she was asked the make and model of the car."

France: "It is not possible to isolate the part from the company car from the salaries in kind. Variable PY021 is therefore not computed."

Austria: "According to EU-SILC Doc 65 (2008 operation) non-cash employee income includes among others the following subcomponents: Free or subsidised meals, free or subsidised housing, other goods and services. Originally it was foreseen that the non-cash employee income from EU-SILC 2007 onwards is integrated in PY010 and therefore part of the household income. After consultations with EUROSTAT the amount for PY020 is calculated separately in EU-SILC 2008 and is not integrated in the household income. The data for EU-SILC 2007 have been changed accordingly."

Finland: "Optional contributions made by employers on the basis of contractual or specific sector arrangements have not been included in PY030G. The information is not available from registers and thus is not measurable as reliably as other income. The total amount of optional contributions of all employer's social insurance contributions is about 10 percent according to - National Accounts (NA). A very small part of optional contributions has however been counted in PY020G: e.g. such contributions to individual pension and risk insurance scheme, which are determined as taxable income by tax authors. These items are part of other register item in PY020G and can't be separated."

Norway: "In previous years this has only included the estimated value of using a company car. From 2007 on (the income year 2006) it includes the following elements: -Company car -

Electronic communication paid by employer (telephone, internet connection etc) -Insurance against accidents and other insurances -Advantage of subsidised loans -Advantage of subsidised stocks in the company -Other taxable payments in kind such as electricity, accommodation, holidays/travels, transport etc."

3. TIMELINESS AND PUNCTUALITY

3.1. Cross-sectional data

Regulation (EC) No 1177/2003 states that: "…The extreme deadline for the transmission of micro-data to Eurostat shall be 30 November (N+1) for Member States where data are collected at the end of year N or through a continuous survey or through registers and 1 October (N+1) for other Member States".

The information by country on the deadline established by the Regulation as well as information on the date of first data transmission, the number of transmissions and the date of last transmission - can be found in annex 4 of this report.

The main conclusions from the annexed table are the following:

The first cross-sectional micro-data for the 2008 operation were received in Eurostat on 14 May 2009. Eleven countries had clean and accepted micro-data files by September 2009, and additional five countries by October 2009. With three more countries having clean micro-data by end November 2009, nineteen countries kept the deadline of Regulation n°1177/2003. But, ten countries did not meet this deadline, out of which 6 countries could not implement the finalisation of the micro-dataset before the end of 2009.

About the timeliness of the cross-sectional indicators, for the first time, starting from 15 September 2009, the indicators of a country were uploaded on the Eurostat Website as soon as they were validated, not waiting anymore before publication. Indicators were then revised on the Eurostat Website every month around the 15th of the month. This novelty was successful with the uploading of indicators from 3 Member States on 15 September and from additional 8 Member States on 15 October 2009.

Given the delays in data transmission and finalisation, Eurostat was not able to publish on its website EU estimates before 15 December. The present time schedule (upload of all countries and EU aggregates by mid-December on Eurostat Website) still does not fulfil the needs of policy makers as well as of researchers. The lack of freshness of EU-SILC data is now a major concern, which was further exacerbated by the need of our stakeholders to get earlier information on the impact of the economic crisis.

3.2. Longitudinal data

For the longitudinal component, the Regulation (EC) No 1177/2003 states the following: "…The mandatory deadline for the transmission of micro-data to Eurostat shall be the end of March (N+2), each year starting from the second year of EU-SILC". Grants to Member States had different deadlines but all of them were earlier than the one in the Regulation.

As for the cross-sectional component, Annex 4 gives information by country on the deadline established by the Regulation, the date of first data transmission, the number of transmissions and the date of last transmission.

The 2008 longitudinal micro-data files include the 2005 - 2008 individual trajectories of 25 EU Member States plus Iceland and Norway, the 2006 – 2008 trajectories for Bulgaria and the 2007 – 2008 trajectories for Romania. The main conclusions from the annexed table are the following:

The first longitudinal microdata for the 2008 operation were received by Eurostat in October 2009 (for three countries). 25 out of 29 countries managed to provide Eurostat with a first data transmission by 31 March 2010 (mandatory deadline). Nevertheless, the deadline of end-March according to the SILC Regulation refers to the transmission of the final and fully clean datasets and not to a first transmission. Following strictly the Regulation, only nine countries met the deadline. Despite the progress in comparison to the previous year, this is still the critical point for the longitudinal operation.

The indicator "persistent at risk of poverty rate" was computed and uploaded on the Eurostat website in February 2010 for the 2007 operation and in mid April 2010 for the 2008 operation, after consultation with the concerned countries. As for other indicators the update of this indicator occurs monthly around mid month.

3.3. Quality reports

The deadline established in the Regulation (EC) No 1177/2003 for the transmission of the national final quality reports is end of year N+2 and almost all countries met the deadline.

4. ACCESSIBILITY AND CLARITY

In accordance with Commission Regulation 831/2002, the Commission has released SILC anonymized micro-data via CD-ROM to researchers. The UDB (User database) with the cross-sectional 2008 micro-data was sent to countries and contractors[5] in March 2010, while the UDB containing the longitudinal 2008 micro-data was released for the first time in August 2010 and an update was disseminated in March 2011 with the cross-sectional 2009 micro-data. Indicator values in the form of predefined tables or of multidimensional tables are available free of charge on Eurostat website and can be explored via the data navigation tree.

Public information on data coding as well as methodological description of EU-SILC is available at http://circa.europa.eu/Public/irc/dsis/eusilc/home. Moreover, there is a dedicated section on the website of Eurostat containing key information on Income, Social Inclusion and Living conditions as well as on the EU2020 poverty target.

In addition, EU-SILC data were used in the last months in the following publications[6]:

a. Statistical books

- Income and living condition in Europe
- The social situation in the European Union 2009
- Combating poverty and social exclusion

b. Statistics in focus

[5] The term "contractors" includes universities, research institutes and some other bodies.
[6] Available on Eurostat website.

- The 9 poorest countries catching up on income per capita - Issue number 16/2011
- Housing conditions in Europe in 2009 – Issue number 4/2011
- Over-indebtedness of European households in 2008 - Issue number 61/2010
- 51 million young EU adults lived with their parent(s) in 2008 - Issue number 50/2010
- 17 % of EU citizens were at-risk-of-poverty in 2008 - Issue number 9/2010

c. New releases

- In the EU27, 116 million people were at risk of poverty or social exclusion in 2008
- One in three men and one in five women aged 25 to 34 live with their parents
- 17% of EU27 population at risk of poverty

d. Methodologies and working papers

- Inequality, growth and mobility: the inter-temporal distribution of income in European countries 2003-2007
- The distribution of employees' labour earnings in the EU - data, concepts and first results
- Income poverty and material deprivation in European countries
- Towards an inclusion balance - accounting for gross change in Europeans' living conditions
- Household structure in the EU
- Robustness of some EU-SILC based indicators at regional level
- An assessment of survey errors in EU-SILC
- The comparability of imputed rent
- The distributional impact of imputed rent in EU-SILC
- Social participation and social isolation
- Macro determinants of individual income poverty in 93 regions of Europe
- Economic downturn and stress testing European welfare system
- Analysing the socioeconomic determinants of health in Europe: new evidence from the EU-SILC
- Methodological issues in the analysis of the socioeconomic determinants of health using EU-SILC data
- In-work poverty in the EU
- Educational intensity of employment and polarisation in Europe and the US

5. COMPARABILITY

Comparability refers to a common set of concepts and definitions that shall be applied by the countries when designing the survey and collecting the data. It encompasses both basic definitions (reference population, private household, household membership…) and income concepts (employee income, self-employment income…).

Commission Regulation 1980/2003 establishes the framework for comparability, which has set out standard definitions as accurately as possible to cover most of the cases that might be encountered in practice. Some degree of flexibility is allowed regarding the definitions but countries have to report on deviations and their estimated impact in the national quality report.

5.1. Basic concepts and definitions

To ensure comparability of data similar definitions should be used by countries. This section summarizes the deviations from the standard definitions reported by countries. In the 2008 EU Comparative Intermediate Quality Report there is detailed information on this aspect, one table on the adherence/deviation to the standard definition on the reference population, the private household and the household membership and a second table on the reference period for income, for taxes on income and social insurance contributions and for taxes on wealth. As no new information has been reported by countries in the final quality report, this section presents a summary of the conclusions by item.

Table 6: Basic concepts and definitions: are the standard EU-SILC definitions used?

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR
Reference population	F	F	F	F	F	F	F	F	F	F
Private household definition	F	F	F	F	F	F	F	F	F	F
Household membership	F	F	F	F	F	F	F	F	L	F

	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL
Reference population	F	F	F	F	F	F	F	F	F	F
Private household definition	L	F	F	F	F	F	F	F	F	F
Household membership	L	F	F	F	F	F	F	F	F	F

	PT	RO	SI	SK	FI	SE	UK	IS	NO
Reference population	F	L	F	F	F	F	F	F	F
Private household definition	F	F	F	F	F	F	L	F	F
Household membership	L	F	F	F	F	F	L	F	F

Source: National Final Quality Reports 2008
F (fully comparable); L (largely comparable); P (partly comparable); N (not comparable)

Most countries follow the standard definitions with only some exceptions:

- Reference population: Romania.
- Private household definition: Italy and the United Kingdom.
- Household membership: Spain, Italy, Portugal and the United Kingdom.

Table 7: Reference period by country (2008)

	Income reference period	Reference period for taxes on income and social insurance contributions	Reference period for taxes on wealth
BE	2007	2007	NA

	Income reference period	Reference period for taxes on income and social insurance contributions	Reference period for taxes on wealth
BG	2007	2007	2007
CZ	2007	2007	2007
DK	2007	2007	2007
DE	2007	2007	2007
EE	2007	2007	2007
IE	12 months prior interview date	12 months prior interview date	NA
EL	2007	2007	2007
ES	2007	2007	2007
FR	2007	2007	01/01/2007
IT	2007	2007	2007
CY	2007	2007	2007
LV	2007	2007	2007
LT	2007	2007	2007
LU	2007	2007	2007
HU	2007	2007	2007
MT	2007	2007	NA
NL	2007	2007	NA
AT	2007	2007	NA
PL	2007	2007	2007
PT	2007	2007	2007
RO	2007	2007	NA
SI	2007	2007	2007
SK	2007	2007	2007
FI	2007	2007	2007
SE	2007	2007	No information
UK	Centred around interview date	Centred around interview date	Financial years Apr07 - March08 Apr08 - March09
IS	2007	2007	2007
NO	2007	2007	2007

Source: National Final Quality Reports 2008
NA: Not applicable - this tax does not exist in the country

The reference period for the majority of countries is the previous calendar year with only two exceptions:

- Income reference period and reference period for taxes on income and social insurance contributions: Ireland (12 months prior to the interview date) and the United Kingdom (centred around the interview date[7]).
- Reference period for taxes on wealth: the United Kingdom (based on data provided for the financial years April 2007 – March 2008 and April 2008 – March 2009.

Time lag

The lag in months between income reference period and current variables differs from country to country, from Ireland and the United Kingdom with no time lag to Sweden with up to 12 months lag.

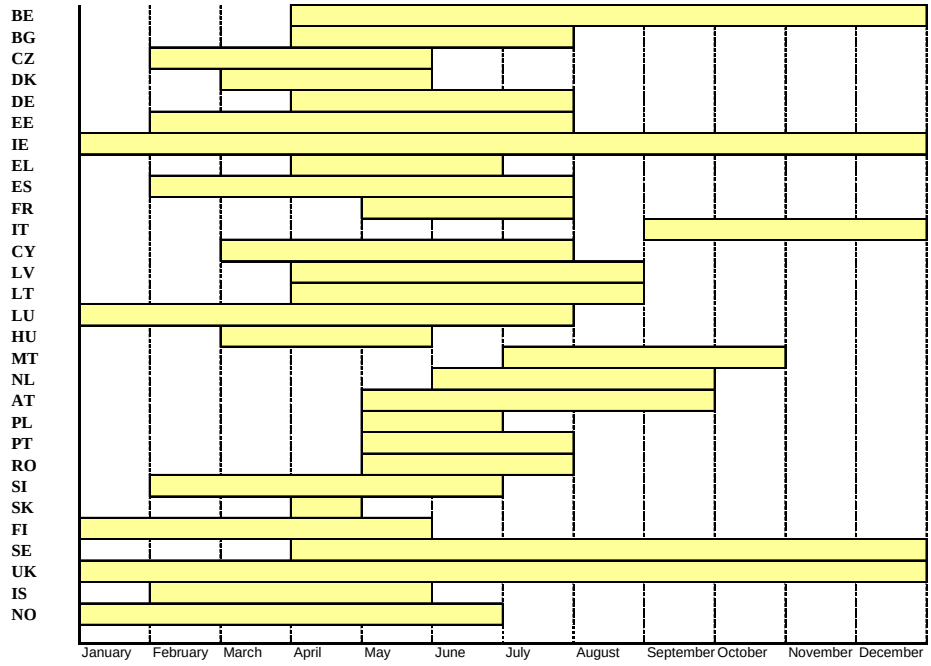
Fieldwork duration

The fieldwork in most of the countries lasted between three and five months. There were only two countries with a shorter (Poland and Slovakia) and six countries with a longer fieldwork duration (Belgium, Ireland, Luxembourg, Sweden, the United Kingdom and Norway).

The following chart summarizes the fieldwork period by country; figures correspond to the information on the month of the household interview (HB050). The coloured cells correspond to the month when the interviews took place.

[7] Comment from the United Kingdom: "…The survey measures current income. So for example, for income from earnings and benefits, respondents will provide figures which relate most commonly to the last week, two weeks, or month. With earnings in particular, respondents are asked for usual earnings. These figures, which represent current (and usual) incomes are then annualised (weekly estimates multiplied by 52, monthly by 12 etc). Income from self-employment can be reported for a variety of periods, but it is always up-rated (using the UK's average earnings index) to the interview date. For income from investment and employee non-cash income respondents are most likely provide their most recent annual or half-yearly income that they received from this source. This income would be annualised, although there is no up-rating…"

Figure 3: Fieldwork period for the 2008 operation by country



Source: Micro-database (March 2010)

It can be concluded that in 2008, as in 2007, most of the countries (19) finished the fieldwork period by July, with ten exceptions: Latvia and Lithuania (both in August), the Netherlands and Austria (both in September), Malta (in October), Belgium, Italy, and Sweden (all in December), plus the two countries with a continuous survey, Ireland and the United Kingdom.

5.2. Components of income

Regarding the components of income some flexibility has been allowed to the definitions, particularly for taking into account national constraints. Countries report on any differences between the national definitions and the standard EU-SILC definition. Two summary tables by country and income component can be found in the annex of the 2008 EU Comparative Intermediate Quality Report, one on household income components and one on personal income components, plus all the comments received by countries.

5.3. Tracing rules

Tracing rules are defined in Commission Regulation EC 1982/2003. Most of the countries follow the common rules, and some of them report in detail the procedure. The following table summarizes the information in the national quality reports.

Table 8: Tracing rules by country

Country	Code	Comments from countries
BE	**L**	Although the 'tracing rules' from Eurostat say that sample households non enumerated the first year of the panel 'may be dropped', some households who did not participate in 2004 were contacted in 2005. These cases concern households who were not interviewed in 2004 because they were temporarily away, unable to respond due to illness or due to other reason (DB130=22 to 24).
BG	**F**	Standard EU-SILC tracing rules are applied.
CZ	**F**	Standard EU-SILC tracing rules are applied.
DK	**F**	"Tracing was conducted using the personal number in the population register. In principle there is no difference from national rules and the standard EU-rules."
DE	**F**	For the second year of the longitudinal component, the tracing rules as laid down in the document EU-SILC 065 were applied.
EE	**F**	Standard EU-SILC tracing rules are applied.
IE	**N**	Due to filed staff recruitment/retention problems we did not have enough field staff to trace households that moved.
EL	**F**	Standard EU-SILC tracing rules are applied.
ES	**F**	Standard EU-SILC tracing rules are applied.
FR	**F**	:
IT	**F**	:
CY	**F**	Standard EU-SILC tracing rules are applied.
LV	**F**	For the second, third and the fourth waves tracing rules were applied for a longitudinal component according to the description of the document EU-SILC 065. To identify the residence of a person moving from one address to another address, the information from the Household List (an additional document to record personal data about the household member for tracing purposes) of the previous wave and the Population Register was used. There were no divergences from common standards.
LT	**F**	Standard EU-SILC tracing rules are applied
HU	**F**	Standard EU-SILC tracing rules are applied.
MT	**F**	The EU-SILC tracing rules have been implemented in the tracing procedure. In an attempt to facilitate this procedure the questionnaire incorporates a question that asks about the intention or expectation to move house in the 12 months following the interview.
NL	**F**	Standard EU-SILC tracing rules are applied.
AT	**F**	For all four waves of the longitudinal component of EU-SILC, the tracing rules as laid down in the document EU-SILC 065 were applied. To identify the residence of persons moving from one address to another address, Statistics Austria made use of the ZMR.
PL	**F**	Standard EU-SILC tracing rules are applied.
PT	**F**	:
RO	**F**	Standard EU-SILC tracing rules are applied.
SI	**F**	Due to the fact that in Slovenia we use sample of persons and each household has only one selected person, we traced only the selected person. These persons are at least 16 years old .We trace to such person, if he/she moves in the territory of Slovenia. If the sample person moved permanently into institution or collective household, such household was excluded from survey. We excluded from survey also households where the sampled person died. In the case that sampled person moved interviewers (CAPI) had to fill in special form, where they wrote new address, if they found it from persons who live in the address or from neighbours. They sent to the office these forms with new addresses and in the office we prepared additional list of sampled persons which we sent to appropriate interviewer. In the case that move person who was interviewed by phone, interviewer wrote the new address into the computer program and after the CATI interviewing period was finished, we sent all lists to the appropriate interviewers. In the

		case that interviewer could not get a new address, in the Statistical office we tried to find new address from other sources. This way all selected persons and their households who moved are interviewed face to face under condition that we got new address.
SK	**F**	Procedure of tracing of households and persons: 1. If whole household moved out, interviewer had to find out its new address by all available sources. This information could be obtained from neighbours or relatives, municipal/communal office and others. Interviewer provide new address of household, name and surname of the head of the household in relevant form and also filled ID number of household and this form gave to coordinator of the Regional Office in period at least 3 days. Consequently coordinator decided on another procedure to continue in this circumstance. 2. Similarly interviewer proceeded in the case of one or more selected persons moved out. Basic source of information on place of moving of selected person/persons was information received from other household members. For each person moved out interviewer completed relevant form, where was listed new address of this person again, his/her name and surname, household ID and personal ID. 3. In the case if interviewer was entrusted to collect data for household or person moved out, needed information was received from coordinator of the relevant Regional Office.
FI	**F**	The tracing rules for the follow-up of sample persons, sample households and co-residents have been followed in the longitudinal survey according to the EU-SILC requirements framework. Because of the sampling design and the sampling unit definition used (the selected individuals), only the initial sample persons of the first wave are followed over the survey years/waves. Acceptance of household interview for database (DB135=1) from the previous wave is provided for continuing in the wave of the survey year. Households of the survey year are constructed and household members are defined (mostly co-residents, see the household membership definition) around these sample persons. Household members include the ones who are currently (end of the income reference period, 31 December) living in the households containing the initial sample person, the persons who are temporarily absent, and the persons who have moved and born into the household since the previous wave. Membership status is checked in each wave.
SE	**F**	The sampling unit is individual, and we include all household-members at the time when the sample is drawn the first year. During the following three year the sampled individuals are included in the panel wave, and there household-situation is examined. If there original household from the first year has been split, we only follow the sampled individual. The household-situation for not sampled household-members is not examined if they no longer belong to the household of the sampled individuals.
UK	**L**	For UK EU-SILC 2006, persons aged 14 and above who could not be contacted in 2005 where not always re-contacted in 2006. Furthermore, information on former residents was not collected. A similar process was followed between 2006 and 2007, and 2007 and 2008.
IS	**F**	We only trace the selected respondent and if he or she has new household-partners they will be included in the survey. The information used for tracing are received from the national register, information on phone numbers are received from the largest phone company in Iceland. Information from former household members are also used to help locate selected respondents if the selected respondent has moved.
NO	**:**	:

Source: National Final Quality Reports 2008
F (fully), L (largely), P (partly), N (not comparable),: (No information).

We can conclude that the large majority of countries follow the standard rules.

6. COHERENCE

In each survey or administrative data variables similar to those in EU-SILC can be found and then the definitions and data can be compared taking as starting point EU-SILC variables.

There is a variety of sources to analyse the coherence of EU-SILC. The sources mostly used by the countries to compare EU-SILC data are: previous operations of EU-SILC (considered as an analysis of the comparability of the data), Household Budget Survey (HBS), Labour Force Survey (LFS), National Accounts (NA) and administrative sources.

The information presented on this section of the national quality report varies greatly among countries. Some countries only explain that they did coherence studies but do not present the results in the national quality report. The table below presents a summary of which coherence studies were carried out with 2008 data by country.

Table 9: Comparison between EU-SILC and other datasets (2008)

	Comparison with					
	Previous EU-SILC	**Household Budget Survey**	**Labour Force Survey**	**National Accounts**	**Administrative sources**	**Other sources**
BE	Y	N	N	N	N	N
BG	N	Y	Y	N	Y	N
CZ	N	N	N	Y	Y	N
DK	:	:	:	:	:	:
DE	N	Y	N	N	N	N
EE	Y	N	Y	Y	N	Y
IE	N	N	N	N	Y	Y
EL	Y	Y	Y	N	Y	N
ES	Y	N	Y	Y	Y	N
FR	N	N	N	N	Y	Y
IT	N	N	Y	Y	Y	N
CY	Y	N	Y	N	N	N
LV	N	Y	Y	N	Y	N
LT	Y	Y	N	N	Y	N
LU	N	N	N	N	N	N
HU	Y	Y	Y	N	N	N
MT	Y	N	Y	Y	Y	N
NL	Y	N	N	N	N	Y
AT	Y	N	N	Y	Y	N
PL	Y	Y	N	Y	N	N
PT	Y	Y	N	N	N	N
RO	N	Y	N	N	N	N
SI	Y	Y	Y	Y	N	N
SV	Y	Y	Y	N	Y	Y
FI	Y	N	Y	Y	Y	Y
SE	N	N	N	N	N	N
UK	Y	N	N	N	N	Y
IS	N	N	N	N	N	N
NO	N	N	N	N	N	N

Source: National Final Quality Reports 2008

The main conclusions from this table are the following:

- The majority of countries performed coherence studies with 2007 data. The

- only exceptions are: Belgium, because they had problems to run the tests; Luxembourg, because of the difficulties to gather income information on 'cross-border' workers and international officials; and some register countries, because EU-SILC data already come from registers. Nevertheless, all these countries should envisage the possibility of comparing data with, at least, previous editions of EU-SILC.
- Eleven countries compared data with HBS, twelve with LFS, nine with National Accounts and thirteen with administrative sources.
- Seven countries carried out coherence studies with other national sources.

7. ANNEXES

Annex 1: Sampling design

This annex presents information on sampling design in 2008 by country.

Belgium

The 2008 Belgian sample on which are based the cross-sectional data consists of two rotational groups selected during the period 2005 – 2007 and in 2008.

Two different sample designs were used for the selection of the rotational groups:

- The sample of 2004 was selected with stratified two-stage sampling. In the first phase 275 municipalities were selected with probability-proportional-to-size (PPS) sampling with stratification by region; the strata were the NUTS2 provinces of Belgium and the Brussels Capital region. In the second phase a sample of 40 households was selected from the first phase's municipalities systematically. The households have been ordered according to the age of the reference person.
- The sample of 2005 was selected with systematic sampling. The strata comprise of the 275 municipalities selected in the sample of 2004. The first 10 households of the 2004 sample selected with stratification by municipality are replaced by a new systematically selected sample of households. The same selection process is followed for the samples of 2006 – 2007.
- The same selection process is followed for the sample of 2008. 40 households were selected systematically from each stratum. The strata comprise of the 275 municipalities selected in the sample of 2004.

Bulgaria

The 2008 sample on which are based the cross-sectional data consists of a four-year rotation panel in which the sample is divided in four sub-samples. Each year one of the rotation groups is dropped out and a new one is added to the sample.

Bulgaria follows a stratified two-stage sampling where the strata are formed based on the country administrative-territorial division. The primary sample units (PSUs) are the census enumeration units where the secondary sample units (SSUs) are the households.

The sample is stratified by administrative-territorial districts in the country (NUTS3) as well as household's location. In the first phase, the census enumeration units (PSUs) are selected within each stratum with proportional sampling. In the second phase, households are selected with systematic sampling.

The renewal of the sample in rotational groups is implemented as follows:

- In the sample of 2006 (which was the first year of the implementation of the survey in Bulgaria), 6120 households were selected and divided into four rotational groups of equal size.
- In the sample of 2007, the first rotational group (consisted of 1530 households) was dropped out and replaced by 1530 new households.

- In the sample of 2008, the second rotational group (consisted of 1451 households) was dropped out and 2935 new households were selected and added as rotational group 6.

As a result the sample of 2008 was consisted of 56 strata (28 of urban population and 28 of rural population) and of 6530 households (total sample of households). However, the final achieved sample size (interviewed households) was consisted of 4344 households.

Czech Republic

The 2008 sample on which are based the cross-sectional data consists of two new sample replications in 2006 and 2007. The rotational scheme with four replications will be in use in 2009, when the households from the 2005 operation will be dropped from the sample.

Due to the relatively small sample size in 2005, all responding households were carried over to the 2006 operation. One new sample replication was added in 2006 and 2007.

The sample of 2008 was selected with stratified sampling in two-phases. At the first phase, small geographical areas were selected, namely Census enumeration units (CEUs) with probability sampling and with stratification by region. The strata were the NUTS 3 regions of the country and the municipality size. In the second phase a sample of 4249 dwellings were selected from the first phase's CEUs with simple random sampling. The ultimate sample unit was the dwelling, i.e. all persons with usual residence in that dwelling. 10 dwellings were sampled from each CEU.

The total sample size was 14134 dwellings (14289 households) from which 4249 dwellings were newly selected and 9646 dwellings (9764 households) were revisited from previous waves.

Denmark

The sampling design is simple random sampling. The sample is a one stage sampling being the sampling unit the individual person. The sampling frame is all individuals aged 14 or more but only households where the selected person is 16 or more at the beginning of the survey year are included in the indicators computation of that year.

Germany

The 2008 sample on which are based the cross-sectional data consists of four rotational panels. In 2005, the survey started with three quota samples and one random sample. Each year, one quota sample was replaced by a new randomly selected sample. Consequently, the sample of 2008 is based only on random samples.

The sampling frame for the German EU-SILC survey, for the yearly random selection of a new sub-sample is an access panel (DSP), which is consisted of former participants of the German Microcensus survey. The Microcensus is the largest household survey in Germany and is based on random sampling.

The population of the German EU-SILC is persons living in private households. The EU-SILC sample of 2008 was selected with a stratified simple random sampling. Households were selected with simple random sampling within each stratum. The strata were formed on the basis of different stratification criteria, i.e. land (federal state), household type, social status of the main income earner, household net income and farm household (separate stratum for each federal state).

Estonia

The 2008 sample on which are based the cross-sectional data consists of four rotational groups, one group selected in each of 2005, 2006, 2007 and 2008. The sample unit was always persons aged over 14 years (address-persons).

The samples were selected with stratified sampling. Sample of persons aged 14 years and over was selected with systematic sampling within each stratum. Then the household of the selected person was identified and all eligible persons in the household were interviewed. For households this procedure results in unequal probability sampling with inclusion probabilities proportional to household size. Households are regarded as sampling units although selection was made using the sample of address-persons.

The strata were geographical regions grouped together according o the population size (i.e. 'big' countries, 'small countries' and Hiiu country which constitutes a separate stratum as the smallest country in terms of its population size).

In the sample of 2008, 2421 new households were included in the survey, with the same selection process as for the groups from 2005, 2006 and 2007.

Ireland

The 2008 sample on which are based the cross-sectional data consists of four rotational groups, one group selected in each of 2005, 2006, 2007 and 2008.

The sample of 2008 was selected with stratified sampling in two-phases. In the first phase dwelling blocks were selected with stratified random sampling with stratification by country and degree of urbanization. In the second phase, households were selected randomly from the first phase's dwelling blocks.

The second sampling phase was repeated on a quarterly basis, and households selected each quarter constituted the different replication groups. Namely, for every dwelling block a sample of households was selected on a quarterly basis. If the household was interviewed in the same quarter the previous year (T-1) and the rotational group in which it existed was included in the current year's sample (T), then this household was selected in the sample of the T year.

Greece

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each replication remains in the sample for four years. Each year one of the four replications is dropped and is replaced by a new one. The sample unit was always the household.

The sample of 2003 was selected with stratified two-stage sampling. There were 90 strata defined by geographic criteria (NUTS2 regions) and by the degree or urbanisation (i.e. according to their population size). In the first phase, area units (i.e. dwelling blocks) are selected with probability proportional to size. In the second phase, a sample of 8000 households[8] (ultimate units) was selected with systematic sampling from the first phase's areas. All the persons living in the selected addresses are then interviewed.

[8] The great majority of dwellings are occupied by one household; the quality reports of the country report sample information in terms of households.

In 2008, a stratified sampling was implemented in two phases, with the same selection process as for the previous years. The final sample was consisted of 6504 households, i.e. households for which an interview is accepted for the database.

Spain

The 2008 sample on which are based the cross-sectional data consists of four rotational groups, each of which one remains in the sample for four consecutive years (4-year panel).

Therefore, the survey of 2004, the 2000 census sections were divided into four groups, called rotational groups, each one corresponding to the four panels of the sample. Each sub-sample was constituted of 500 sections. Every year, the sample of addresses in the sections belonging to a given rotational group is replaced.

The sample of 2008 was selected with stratified sampling into two-phases. In the first phase, census sections were selected with probability proportional to size (family dwellings) and with stratification by administrative region and size of the municipality. In the second phase, 4000 dwellings[9] were selected within the first phase's census sections with systematic sampling. Nevertheless, dwellings were sorted in random order before systematic selection is carried out.

France

The French EU-SILC sample consists of nine rotational groups, each one is included in the panel for nine years. In 2004, a sample of dwellings was drawn from the 1999 Master sample which was updated with 'new' dwellings that came after the Census of 1999.

The 2008 sample was selected with stratified sampling in three phases. In the first phase, groups of municipalities were selected with probability proportional to size within each stratum. The strata were NUTS2 regions classified according to the degree of urbanisation and the type of area (urban, rural). In the second phase, dwellings were selected systematically for urban areas, whereas for rural areas ad-hoc groups of municipalities were selected. The third phase exists only for rural areas where dwellings were selected systematically.

All households living in the selected dwellings were interviewed.

Italy

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed, replacing the group entered in the sample four years before.

The sample of 2008 was selected with stratified sampling in two-phases. In the first phase, four municipalities were selected in each stratum with probability proportional to the number of residents. Municipalities were stratified by administrative region and number of residents. Municipalities which their sizes were larger than a threshold were self-representing units, i.e.

[9] In the second phase, family addresses were selected. However, there was no sub-sampling within those units; all households usually residing in those addresses were surveyed; the quality report of the country reports sample information in terms of households.

they constituted a separate stratum and were included in the sample with certainty. In the second phase, households were selected systematically from the first phase's selected municipalities.

Each rotational group is associated to one municipality in the strata. However, the self-representative municipalities were enclosed in every rotational group. In such a case, households included in these municipalities were divided in 4 independent samples.

Cyprus

The 2008 sample on which are based the cross-sectional data consists of a rotational design of four replications, with a rotation of one replication per year. The sampling units are the households which were selected with simple random sampling within each stratum. Geographical criteria were used for the sample selection, namely the households were stratified in 9 strata based on district (Urban/Rural).

Every year one sub-sample is dropped out and substituted by a new one. In sample of 2008 one specific sub-sample of the sample of 2007, pre-selected in the sample of 2005, was dropped and substituted by a new one selected randomly in the same way as in the sample of 2005.

The initial sample of 2008 consisted of 3853 households, whereas the final achieved sample size (interviewed households) was consisted of 3355 households.

Latvia

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each year one of the groups is dropped out and replaced by a new sub-sample.

The sample of 2008 was selected with stratified two-stage sampling. In the first phase, Population Census counting areas were selected systematically within each stratum. The stratification was based on the degree of urbanisation of the area. Four strata were formed.

In the second phase, addresses were selected with simple random sampling within the first phase's Population Census counting areas. All households and individuals belonging in the selected addresses in urban areas were included in the sample. In rural areas, only households formed by persons enumerated in the Household list were included.

Lithuania

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each year one of the groups is dropped out and replaced by a new sub-sample of households.

The samples of 2006, 2007 and 2008 were selected with stratified simple random sampling. Persons aged 16 years and over were selected from the Population Register within each stratum. Seven strata were formed based on the degree of urbanisation.

Households where the selected persons lived in were surveyed.

Luxembourg

The 2008 sample on which are based the cross-sectional data consists of five longitudinal samples of individuals and a simple random sample of 'tax' households.

The samples were drawn independently. The longitudinal samples were consisted of individuals distributed within dwellings where none of the members depends on Luxembourg's Social Security System.

The sample of 'tax' households was consisted of a group of persons who depends on the same Social Security System.

All samples were selected with stratified simple random sampling. The strata in the case of 'tax' households were formed on the basis of Social security status variables.

Hungary

The 2008 sample on which are based the cross-sectional data consists of four rotational groups, one group selected in each of 2005, 2006, 2007 and 2008. Four different sample designs were used for the selection of the rotational groups:

- The samples of 2005, 2006 and 2008 were selected with stratified sampling in two-phases in a part of the population (part I), while with a stratified sampling on the other part of the population (part II). Part II of the population consists of the bigger localities whereas part I of the population consists of the rest.
    - Part I of the population: In the first phase, localities were selected with stratification by General Election Districts and size (in terms of the number of dwellings) with probability proportional to the size of dwellings. In the second phase, dwellings were selected systematically from the first phase's localities.
    - Part II of the population: The sample was selected with a systematic sampling. Dwellings are selected systematically within each stratum. The strata are the same as in the first case, i.e. stratification by General Election Districts and size (in terms of the number of dwellings).
- The sample of 2007 was selected with stratified sampling in three phases in a part of the population (part III), while a stratified sampling in two phases on the other part of the population (part IV).
    - Part III of the population: In the first phase, localities were selected with probability proportional to size with stratification by country and category size. In the second phase, enumeration districts were selected also with probability proportional to size. In the third stage, households were selected with stratified random sampling, with stratification by the characteristics of the head of the household.
    - Part IV of the population: In the first phase, localities were selected with probability proportional to size with the strata; the strata were defined by country and category size criteria. In the second phase, households were selected with stratified random sampling, with stratification by the characteristics of the head of the household.

Malta

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each year one of the groups is dropped out and replaced by a new sample.

The sample of 2008, like in previous years, was selected with simple random sampling. 1504 dwellings were selected from the Census of Population and Housing database, which served as the sampling frame in the survey. The sampling units were households composed of a number of persons who share their income and expenses.

All persons living in the selected households were included in the sample.

All households belonging to the 'old' rotational groups were re-contacted for this year's survey.

The Netherlands

The 2008 sample on which are based the cross-sectional data consists of four rotational groups, one group selected in each of 2005, 2006, 2007 and 2008.

The sample of 2008 was composed of the addresses which took part in the Labour Force Survey (LFS) and are willing to cooperate also to EU-SILC survey. The LFS sample was selected with stratified sampling in three phases. In the first phase, municipalities were selected systematically within the strata with probability proportional to size. The stratification of municipalities was based on geographical criteria according to a combination of two regional attributes, i.e. COROP and interviewer region. In the second phase, addresses were selected from the first phase's municipalities with simple random sampling within the first phase's selected municipalities. In the third phase, persons aged 16 years an over were selected also with simple random sampling.

The LFS survey has a panel structure with five rotational groups. When the first wave is completed, addresses with all residents aged 64 years and over are removed from the sample. As addresses with all residents aged 64 years and over are not included in the last wave of LFS survey and in order to get a full coverage of the target population in EU-SILC survey, a sample of addresses with all residents aged 65 years and over was also drawn with simple random sampling.

Therefore, the final EU-SILC 2008 sample consisted of two parts, i.e. the first part which contained the set of addresses with households which participated in LFS survey and the second part which contained a set of addresses with all residents aged 65 years and over.

Austria

The 2008 sample on which are based the cross-sectional data consists of four rotational groups, one group selected in each of 2005, 2006, 2007 and 2008. The sample unit was always the dwelling. Three different sample designs were used for the selection of the rotational groups:

- The samples of 2005 and 2006 were selected with simple random sampling of dwellings. In 2008 a stratified random sample was selected from those households[10] available for

[10] The great majority of dwellings are occupied by one household; the quality reports of the country report sample information in terms of households.

follow-up. Two strata were formed, one consisting of households which were at-risk-of-poverty at least once between 2005 and 2007, and the other consisting of the remaining households.

- The sample of 2007 was selected with stratified random sampling. There were 170 strata defined by geographic criteria. In 2008 a stratified random sample was selected from those available for follow-up, with the same selection process as for the groups from 2005 and 2006.
- The rotational group of 2008 was selected with stratified random sampling in two-phases. In the first phase 15000 dwellings were selected with stratification by region; the strata were the NUTS2 regions of the country. In the second phase a sample was selected from the first phase's dwellings with further stratification by region and socio-economic characteristics of the households. The total number of strata was 70.

Poland

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed, replacing the group dropped out with a new one.

The sample of 2008 was selected with stratified sampling in two-phases. In the first phase, enumeration census areas were selected within each stratum with probability proportional to the number of dwellings. The strata were NUTS2 regions classified by the degree of urbanisation. In total, 211 strata were formed. In the second phase, dwellings were selected with simple random sampling.

All households and individuals living in the selected dwellings were eligible for contact.

Portugal

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed, replacing the group dropped out with a new one.

The sample of 2008 was selected with stratified sampling in two-phases. In the first phase, census areas were selected systematically within each stratum. Primary Sampling Units were the areas of the Master Sample (made of census enumeration areas). The strata were NUTS3 regions. In total, 7 strata were formed.

In the second phase, dwellings were selected with simple random sampling. All households and individuals living in the selected dwellings were interviewed.

Romania

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed, replacing the group dropped out with a new sample.

The sample of 2008 was selected with stratified sampling in two-phases. A stratified random sample of 780 areas (primary sampling units) was designed after 2002 census. This is the Multifunctional Sample of Territorial Areas, so called the master sample EMZOT. The primary sampling unit (PSU) corresponds to the master sample, which is a group of census sections (census enumeration areas) selected with probability proportional to size (number of permanent dwellings) within each stratum. The strata were NUTS3 regions classified according to the area where a specific PSU was located (urban or rural area). The EMZOT sample was consisted of 427 PSUs from urban area and 353 PSUs from rural area.

In the second phase, 2340 dwellings were selected systematically from EMZOT. All households within each dwelling were included in the sample.

Slovenia

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each year one fourth of the sample is renewed, i.e. three of the groups are preserved in the sample from the previous year and one new group enters the sample, replacing the group dropped out.

The sample of 2008 was selected with stratified sampling in two phases. In the first phase, enumeration areas were selected systematically within each stratum. The strata were defined according to the size of settlement and the proportion of agricultural households in the settlement. Overall, 6 strata were formed. Within each stratum 600 enumeration areas were selected. In the second phase, 7 persons aged 16 years and over were selected from the first phase's enumeration areas. Persons aged 16 years were oversampled.

All households where the selected persons belong to were eligible for contact.

Slovakia

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed, replacing the group dropped out with a new sample.

The sample of 2008 was selected with one stage stratified sampling. Households were selected with simple random sampling within the strata. The strata were NUTS3 regions classified according to the degree of urbanisation.

All the households and the individuals living in the selected households were contacted.

Finland

The 2008 sample on which based on the cross-sectional data consists of two rotational groups. The sample of the new rotation group was selected in the survey year, the older group consists of the responded households from the previous survey year.

The sample of the new rotation group was selected with a two-phase stratified sampling design. In the first phase, a master sample of persons (50 000) was selected systematically from the population register data. The data has been ordered by the domicile code, which describes individual location of person's permanent residence. Household-dwelling units were constructed by adding persons sharing the same domicile code with the selected persons to the master sample. The master sample of household-dwelling units was stratified by socio-economic criteria (wage earners, entrepreneurs, farmers, pensioners, others and information on taxable income level, 13 strata). In the second phase, a sample of household-dwelling units (7 500) was selected randomly within each stratum of the master sample with unequal probabilities.

Finnish sample design is not fully integrative for the cross-sectional and longitudinal surveys. The 2008 longitudinal sample contains 1/3 of the new rotation group of the cross-sectional survey selected proportionally to the size within strata two, three or four years before the survey year. The whole new group of the cross-sectional survey is thus not selected for the longitudinal survey over four years.

Sweden

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Each group is included in the sample for four waves of the survey. Each year one fourth of the sample is renewed, replacing the group dropped out with a new sample.

The sample of 2008 was selected with systematic sampling. Persons aged 16 years and over were drawn from the Population Register (RTB). In order to cover the whole target population, each panel was supplemented with a systematic sample of immigrants and a systematic sample of individuals new 16 aged.

All the households where the selected persons belong to were then interviewed.

United Kingdom

Data for EU-SILC UK 2008 were collected from two sources. First, data were collected by the Office for National Statistics (ONS), using the General Lifestyle Survey. Second, to ensure that EU-SILC is representative of the UK, a sample of approximately 300 households was selected by NISRA (Northern Ireland Statistics and Research Agency) using the Living Conditions Survey (LCS).

The sample of 2008 was selected with stratified sampling in two phases. In the first phase, postcode sectors were selected with probability proportional to size within each stratum. Initially, postcode sectors were allocated to 31 major strata (30 strata correspond to Great Britain, whereas the stratum with identifier 31 corresponds to Northern Ireland). Within each major stratum, postcode sectors were then stratified according to selected indicators taken from the 2001 Census.

In the second phase, addresses were selected systematically within the first phase's postcode sectors. All households at the sampled addresses and all persons aged 16 years and over living in

these households were interviewed.

Iceland

The 2008 sample on which are based the cross-sectional data consists of four rotational groups. Namely the 4000 individuals selected in the sample of 2004 were divided into 4 rotational groups of approximately 1000 individuals. Every year one of the groups is replaced by a new one consisting of 1000 participants.

The sample of 2008 was selected with simple random sampling without stratification. The sampling units were persons aged 16 years and over living in private households selected from the Population Register. All households where the selected persons belong to were interviewed.

Norway

The 2008 sample on which are based the cross-sectional data consists of eight rotational groups. Up until 2008, the sample for EU-SILC in Norway was composed of an old sample for a longitudinal survey established in 1997 and a new sample with different design in 2003.

The samples of the period 2003 – 2006 were selected with stratified sampling. Persons aged 16 years and over were selected systematically within each stratum. The stratification criterion was the age. In addition, each existing rotational group was then supplemented with new persons aged 16 years and new immigrants to ensure representativeness.

The sample of 2008 is selected only according to the new design, since all respondents from the old sample were rotated out. The sample of 2008 was selected with systematic random sampling in one stage. Persons aged 16 years and over were selected systematically from the central population register.

Annex 2: Mode of data collection

Table 10: Mode of data collection* (longitudinal 2008)

	Wave 2005				Wave 2006				Wave 2007				Wave 2008			
	PAPI	CAPI	CATI	S. A.	PAPI	CAPI	CATI	S. A.	PAPI	CAPI	CATI	S. A.	PAPI	CAPI	CATI	S. A.
BE	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:
BG	:	:	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:
CZ	99.2	:	:	0.8	99.5	:	:	0.5	99.7	:	:	0.3	99.9	:	:	0.1
DK	:	:	94.8	5.2	:	:	95.4	4.6	:	:	95.2	4.9	:	:	95.9	4.1
DE	:	:	:	**100**	54.6	:	:	45.4	:	:	:	**100**	:	:	:	**100**
EE	8.9	90.5	0.5	0.2	1.8	98.1	0.1	:	2.7	97.1	0.2	0	3	96.7	0.3	0
IE	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:
EL	76.7	22.1	1.2	:	73.9	24.2	1.9	:	81	14.6	1.9	2.6	83.5	11	5.5	0.1
ES	:	96.5	3.5	:	:	93.5	6.5	:	:	93	7	:	:	91.6	8.4	.
FR	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:
IT	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:
CY	0.5	99.5	:	:	.	**100**	:	:	0	**100**	:	:	0.1	99.9	:	:
LV	99.1	:	:	0.9	12.9	83.2	3.8	0.1	12.4	80.7	6.9	0.1	7	65	27.9	0.1
LT	97.8	:	1.2	1	96.2	:	2.4	1.4	95.5	:	3.7	0.8	76.4	:	23.3	0.4
LU	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:
HU	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:
MT	10.9	89.1	:	:	:	**100**	:	:	0	**100**	:	:	:	**100**	:	:
NL	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:	.	**100**	:
AT	:	96.6	3.4	:	:	99.6	0.4	:	:	92.3	7.7	:	:	57.3	42.7	:
PL	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:	:
RO	:	:	:	:	:	:	:	:	7.6	92.4	:	:	5.4	94.6	:	:
PT	6.3	93.7	:	:	8	92	:	:	**100**	:	:	:	**100**	:	:	:
SI	**100**	:	:	:	:	68.4	31.6	:	:	52.5	47.5	:	:	19.6	80.4	:
SK	99.5	:	:	0.5	99.4	:	:	0.6	99.4	:	:	0.6	99.5	:	:	0.5
FI	:	5.5	94.5	:.	:	3	97	:	:	2.7	97.3	:	:	0.9	99.1	:
SE	0.1	:	99.9	:	0.1	:	99.9	:	:	:	**100**	:	:	:	**100**	:

UK	:	**100**	:.	:	:	**100**	:	:	:	**100**	:	:	:	**100**	:	:
IS	:	.	**100**	:	:	:	**100**	:	:	.	**100**	:	:	:	**100**	:
NO	:	0.9	99.1	:	:	0.4	99.6	:	:	0.4	99.6	:	:	0.2	99.8	:

Source: Micro-database (April 2011)

* PAPI: Paper Assisted Personal Interview; CAPI: Computer Assisted Personal Interview; CATI: Computer Assisted Telephone Interview; S.A.: Self-administrated questionnaire

Annex 3: Proxy interview

Table 11: Proxy interviews (longitudinal), %

	2005	2006	2007	2008
BE	12.9	13.1	13.9	16.3
BG	:	19.5	29.6	19.2
CZ	9.3	8.3	8.9	9.1
DK	48.5	48.9	49.3	49.1
DE	10.6	19.1	20.3	22.6
EE	6.1	5.2	11.1	13.7
IE	30.0	33.4	30.8	31.9
EL	5.7	3.5	5.6	6.7
ES	40.7	41.1	41.2	40.1
FR	27.1	26.9	28.0	28.5
IT	14.9	15.3	16.3	19.1
CY	13.2	13.0	17.5	17.6
LV	5.8	6.4	5.2	20.7
LT	12.4	16.0	20.3	16.7
LU	22.8	25.4	23.0	24.1
HU	10.4	13.5	20.6	17.1
MT	29.2	30.9	31.5	21.0
NL	40.7	42.8	5.1	0.4
AT	23.1	19.4	20.0	29.3
PL	19.4	18.2	17.4	18.6
PT	13.3	13.1	16.0	17.9
RO	:	:	19.8	19.9
SI	25.3	24.4	26.3	25.3
SK	5.5	5.7	6.6	4.2
FI	50.9	50.7	45.7	14.7
SE	6.6	3.5	3.9	2.4
UK	10.9	10.5	9.7	9.7
IS	:	:	:	:
NO	27.0	29.5	28.5	28.6

Source: Micro-database (April 2011)

Annex 4: Timeliness and punctuality

Table 12: Follow-up cross-sectional data (2008)

	Regulation deadline	First Transmission	Number of transmissions	Last Transmission
BE	01/10/2009	**30/11/2009**	2	18/12/2009
BG	01/10/2009	06/10/2009	4	11/12/2009
CZ	01/10/2009	06/10/2009	2	06/11/2009
DK	30/11/2009	27/11/2009	6	22/03/2010
DE	01/10/2009	30/09/2009	5	06/01/2010
EE	01/10/2009	31/08/2009	1	31/08/2009
IE	30/11/2009	06/10/2009	1	06/10/2009
EL	01/10/2009	**23/10/2009**	2	03/11/2009
ES	01/10/2009	28/07/2009	4	09/10/2009
FR	01/10/2009	**05/10/2009**	3	22/12/2009
IT	01/10/2009	**30/11/2009**	4	05/02/2010
CY	01/10/2009	**10/11/2009**	1	10/11/2009
LV	01/10/2009	16/09/2009	1	16/09/2009
LT	01/10/2009	31/07/2009	3	22/09/2009
LU	01/10/2009	15/09/2009	1	15/09/2009
HU	01/10/2009	15/06/2009	4	10/09/2009
MT	01/10/2009	09/10/2009	3	06/05/2010
NL	30/11/2009	01/10/2009	3	06/01/2010
AT	01/10/2009	08/07/2009	4	23/09/2009
PL	01/10/2009	31/07/2009	2	30/09/2009
PT	01/10/2009	25/09/2009	2	25/09/2009
RO	01/10/2009	29/05/2009	6	09/10/2009
SI	30/11/2009	25/09/2009	1	25/09/2009
SK	01/10/2009	01/07/2009	2	10/09/2009
FI	30/11/2009	14/05/2009	3	14/09/2009
SE	30/11/2009	30/09/2009	3	08/03/2010
UK	30/11/2009	02/11/2009	5	15/12/2009
IS	30/11/2009	21/09/2009	11	05/01/2010
NO	30/11/2009	23/09/2009	3	23/10/2009

Source: eDamis (June 2011) and Regulation (EC) No 1177/2003
Note: The dates in bold in the 'First transmission column' indicate a delay of transmitted data after the Regulation deadline.

Table 13: Follow-up longitudinal data (2008)

	Regulation deadline	First transmission	Number of transmissions	Last transmission
BE	31/03/2010	30/03/2010	2	08/04/2010
BG	31/03/2010	03/02/2010	*2*	14/04/2010
CZ	31/03/2010	**13/04/2010**	3	08/07/2010
DK	31/03/2010	14/01/2011	5	01/02/2011
DE	31/03/2010	23/02/2010	8	18/10/2010
EE	31/03/2010	22/12/2009	1	22/12/2009
IE	31/03/2010	31/03/2010	3	22/10/2010
EL	31/03/2010	02/07/2010	5	17/09/2010
ES	31/03/2010	20/01/2010	2	21/01/2010
FR	31/03/2010	**11/05/2010**	2	10/12/2010
IT	31/03/2010	31/03/2010	2	11/05/2008
CY	31/03/2010	29/03/2010	1	29/03/2010
LV	31/03/2010	22/03/2010	2	10/06/2010
LT	31/03/2010	01/03/2010	3	01/04/2010
LU	31/03/2010	11/12/2009	1	11/12/2009
MT	31/03/2010	25/02/2010	2	20/05/2010
HU	31/03/2010	18/12/2009	5	25/02/2010
AT	31/03/2010	01/02/2010	3	22/03/2010
NL	31/03/2010	29/01/2010	2	06/04/2010
PL	31/03/2010	27/10/2009	1	27/10/2009
PT	31/03/2010	15/03/2010	2	01/06/2011
SK	31/03/2010	31/10/2009	4	04/06/2010
RO	31/03/2010	29/03/2010	2	14/04/2010
SI	31/03/2010	30/10/2009	1	30/10/2009
SE	31/03/2010	15/03/2010	4	04/08/2010
FI	31/03/2010	12/02/2010	1	12/02/2010
UK	31/03/2010	31/03/2010	1	31/03/2010
IS	31/03/2010	05/02/2010	5	22/03/2010
NO	31/03/2010	01/02/2010	4	04/03/2010

Source: eDamis (July 2011) and Regulation (EC) No 1177/2003.
Note: The dates in bold in the 'First transmission' column indicate a delay of transmitted data after the Regulation date.