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REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

**on the implementation of Council Regulation (EC) No 577/98
on the organisation of the labour force sample survey in the Community**

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1. INTRODUCTION

Council Regulation (EC) No 577/98 on the organisation of the labour force sample survey in the Community[1] sets minimum standards for the harmonised production of labour force surveys in the European Union and its Member States. It was amended in 2002, 2003, 2007 and 2014[2].

Article 7 of Regulation (EC) No 577/98 states that:
'A report on the implementation of this Regulation shall be submitted by the Commission to the Parliament and the Council every three years, beginning in the year 2000. This report shall evaluate in particular the quality of the statistical methods envisaged by the Member States to improve the results or to lighten the survey procedures.'
This is the Commission's sixth report to the Parliament and the Council.

Section 2 gives an overview of the European Union Labour Force Survey and its relevance supporting European Union policies.

Section 3 takes stock of how Regulation (EC) No 577/98 has been implemented in the Member States, in candidate countries, and in EFTA countries.

Section 4 focuses on ongoing initiatives launched by the European Statistical System[3] (ESS) to improve the quality and reduce the burden of the Labour Force Survey.

2. OVERVIEW OF THE LABOUR FORCE SURVEY

2.1. General description

The European Union Labour Force Survey (hereinafter referred to as EU-LFS) is a large sample survey of residents in private households. It provides both quarterly and annual labour market statistics on employment and unemployment, as well as on people outside the labour force. It also collects multi-annual information from ad-hoc modules and provides input for model-based monthly estimates of unemployment and unemployment rates.

The **national statistical institutes** of the Member States are responsible for designing national questionnaires, drawing the sample, conducting interviews and sending results to the

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[1]   OJ L 77, 14.3.1998, p. 3.
[2]   Commission Regulation (EC) No 2104/2002 (OJ L 324, 29.11.2002, p. 14), Regulations (EC) No 1991/2002 (OJ L 308, 9.11.2002, p. 1), (EC) No 2257/2003 (OJ L 336, 23.12.2003, p. 6) and (EC) No 1372/2007 (OJ L 315, 3.12.2007, p. 42), and (EU) No 545/2014 (OJ L 163, 29.5.2014, p. 10) of the European Parliament and of the Council.
[3]   According to Article 4 of Regulation (EC) No 223/2009 on European statistics (OJ L 87, 31.3.2009, p. 164), the ESS is the partnership between the European statistical authority, which is the European Commission (Eurostat), and the national statistical institutes and other national authorities responsible in each Member State for the development, production and dissemination of European statistics.

Commission (Eurostat) in accordance with a common coding scheme established by Commission Regulation (EC) No 377/2008[4].

Eurostat is in charge of monitoring the implementation of Regulation (EC) No 577/98, providing assistance to national statistical institutes, promoting harmonised concepts and methods, and disseminating comparable national and European labour market statistics.

The EU-LFS sample size is 1.3 million (EU-28 1.2 million) people aged 15-74 years every quarter, covering 33 participating countries[5]. This makes the EU-LFS the largest household survey in Europe.

2.2. Relevance

The EU-LFS is the most important source of official statistics on labour markets in the European Union. All in all, it collects more than 100 variables on labour status, employment characteristics, working time, educational background and training of individuals, complemented by thematic yearly ad-hoc modules[6]. Based on international standards and definitions, it has relevance beyond European Union borders, enabling the situation in the European labour market to be compared with that in other areas or countries.

Some key EU policy initiatives rely on EU-LFS data. For instance, the EU-LFS is one of the main data sources for monitoring Member States' progress under the employment guidelines adopted pursuant to Article 148 of the Treaty on the Functioning of the European Union[7] (TFEU) and the EU's Europe 2020 strategy. Three EU-LFS indicators (employment rate 20-64; share of early school leavers; 30-34 years old having completed tertiary education) are used to monitor two of the five Europe 2020 headline targets[8]. Many other LFS-based indicators are used under the Europe 2020 Joint Assessment Framework.

Regional LFS indicators are used to help determine the financial allocations of the EU's Cohesion Policy and to design, to monitor and to evaluate the impact of Cohesion Policy programmes.

The LFS-based monthly unemployment rate is an important short-term economic indicator. It is one of the Principal European Economic Indicators[9], and also used to build moving annual averages of unemployment rates for the scoreboard of economic and financial indicators to detect macroeconomic and competitiveness imbalances[10]. The EU-LFS provides input for

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[4] OJ L 114, 26.4.2008, p. 57.

[5] Participating countries are the 28 Member States, Iceland, Norway, Switzerland, the Former Yugoslav Republic of Macedonia and Turkey.

[6] The ad-hoc modules in 2011, 2012, 2013 and 2014 were:
   2011: *Employment of disabled people;* 2012: *Transition from work into retirement*
   2013: *Accidents at work and other work-related health problems*
   2014: Labour market situation of migrants and their immediate descendants.

[7] See Council Decision 2014/322/EU of 6 May 2014 on guidelines for the employment policies of the Member States for 2014, (OJ L 165, 4.6.2014, p. 49).

[8] Europe 2020 headline targets:
   http://ec.europa.eu/eurostat/statistics-explained/index.php/Europe_2020_headline_indicators

[9] http://ec.europa.eu/eurostat/en/web/products-statistical-books/-/KS-81-08-398 (*Principal European Economic Indicators — A statistical guide*, Eurostat 2009).

[10] The MIP Scoreboard is used to identify emerging or persistent macroeconomic imbalances in a country. It is a part of an annual exercise, where the first step is the compilation of an Alert Mechanism Report (AMR). See Regulation (EU) No 1176/2011 of the European Parliament and the Council (OJ L 306, 23.11.2011, p. 25).

national accounts on employed persons and on working time, and on other areas beyond the labour market, such as education.

Finally, the EU-LFS is one of the most important sources of statistical microdata for researchers in Europe. The large sample enables studies to be done on specific groups in the labour market. There is also broad coverage of demographic, regional and educational background variables, among others.

3. IMPLEMENTATION OF THE LABOUR FORCE SURVEY

3.1. Accuracy

Estimates from sample surveys are subject to two types of errors: sampling errors and non-sampling errors. Together, they determine the *accuracy of the estimates*. Sampling errors occur because only a subset of the whole population is surveyed. Non-sampling errors are all other errors introduced that are not the result of sampling (e.g. coverage errors, measurement errors, processing errors, non-response errors).

As regards sampling errors, the size of the sample is the main determinant. Larger samples improve the accuracy of the results. The table below shows the size of the sample of persons aged 15-74 interviewed each quarter in each participating country, in absolute terms and compared with the total population of that age group. The sampling rate[11] ranges from 0.2 % (Belgium, Germany, France, Croatia, Italy, Poland, United Kingdom, and Turkey) to 1.5 % (Malta). On average, the quarterly sample size was 1.3 million individuals in 2014, 0.3 % of the total population aged 15-74 in the 33 countries taking part.

European Labour Force Survey
Achieved sample size and percentage of the population aged 15-74 (quarterly average 2014)

Country	Quarterly sample size (thousand)	Sampling rate 15-74 (%)	Country	Quarterly sample size (thousand)	Sampling rate 15-74 (%)
EU-28	1 195	0.3	MT	5	1.5
BE	20	0.2	NL	81	0.6
BG	25	0.4	AT	34	0.5
CZ	42	0.5	PL	70	0.2
DK	25	0.6	PT	32	0.4
DE	127	0.2	RO	45	0.3
EE	5	0.5	SI	12	0.8
IE	38	1.1	SK	19	0.5
EL	44	0.5	FI	31	0.8
ES	127	0.4	SE	57	0.8
FR	84	0.2	UK	74	0.2
HR	7	0.2	IS	3	1.3
IT	110	0.2	NO	19	0.5
CY	8	1.2	CH	30	0.5
LV	8	0.5	MK	8	0.5
LT	12	0.6	TR	93	0.2
LU	3	0.6			
HU	49	0.6	TOTAL	1 348	0.3

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[11] The sampling rate is defined as the ratio of the sample size (the number of sampling units in the sample) and the population size (the total number of sampling units in the target population).

Official surveys, such as the EU-LFS, use probability sampling. This makes it possible to quantify sampling errors in terms of confidence intervals. The table below provides the estimates and 95 % confidence intervals reached for the four main indicators on aggregated EU-28 level.

95 % confidence interval of the main LFS indicators for the EU28 (2014)

Number of employed (million)	Number of unemployed (million)	Unemployment rate (%)	Average number of hours actually worked (hours)
218.3 ± 0.5	24.8 ± 0.3	10.2 ± 0.3	36.8 ± 0.1

These intervals reflect the precision requirements set out in Council Regulation (EC) No 577/98.

As regards non-sampling errors, Eurostat and participating countries regularly monitor relevant sources of non-sampling errors like non-response. Participating countries report the main causes of errors to Eurostat on an annual basis, along with the methods applied nationally to reduce them. A summary is published in the annual quality report of the EU-LFS[12].

In 2014, participation in the EU-LFS was compulsory in thirteen countries (Belgium, Germany, Greece, Spain, France, Italy, Cyprus, Malta, Austria, Portugal, Slovakia, Norway and Turkey), and voluntary in the other twenty countries. Countries having a voluntary survey generally have a higher non-response rate than countries conducting a compulsory survey[13].

Participation and non-response rate of the EU-LFS by country 2014

Country	Participation	Non-response rate (%)	Country	Participation	Non-response rate (%)
BE	Compulsory	27.8	MT	Compulsory	23.7
BG	Voluntary	23.7	NL	Voluntary	42.7
CZ	Voluntary	20.6	AT	Compulsory	5.7
DK	Voluntary	46.2	PL	Voluntary	31.5
DE	Compulsory	2.3	PT	Compulsory	14.8
EE	Voluntary	31.3	RO	Voluntary	9.5
IE	Voluntary	23.9	SI	Voluntary	21.3
EL	Compulsory	24.6	SK	Compulsory	11.0
ES	Compulsory	15.2	FI	Voluntary	28.0
FR	Compulsory	20.9	SE	Voluntary	35.7
HR	Voluntary	31.3	UK	Voluntary	39.8
IT	Compulsory	11.8	IS	Voluntary	21.0
CY	Compulsory	4.2	NO	Compulsory	19.9
LV	Voluntary	35.7	CH	Voluntary	18.8
LT	Voluntary	19.6	MK	Voluntary	24.6
LU	Voluntary	84.6	TR	Compulsory	9.3
HU	Voluntary	17.2			

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[12] http://ec.europa.eu/eurostat/web/lfs/publications/quality-reporting

[13] The non-response rates are not fully comparable. Most of the countries calculate non-response on the basis of the household unit, except Denmark, Finland, Sweden, Iceland, Norway and Switzerland, which calculate non-response on the basis of persons.

3.2.   Timeliness and punctuality

The *timeliness of statistics* is defined as the time gap between the reference period and the availability of data for users. For the EU-LFS, this time span depends on the time Member States need to conduct and process the survey, then to send the results to Eurostat, and for Eurostat to process, validate and publish the results.

Council Regulation (EC) No 577/98 states that Member States have to deliver data to Eurostat within 12 weeks of the end of a reference quarter. Eurostat validates the national datasets as soon as they are received. The chart below shows the time span between the end of the reference quarter and the availability of data for Eurostat's users for the period 2011-2014, compared to the last year covered by the previous report (2010).
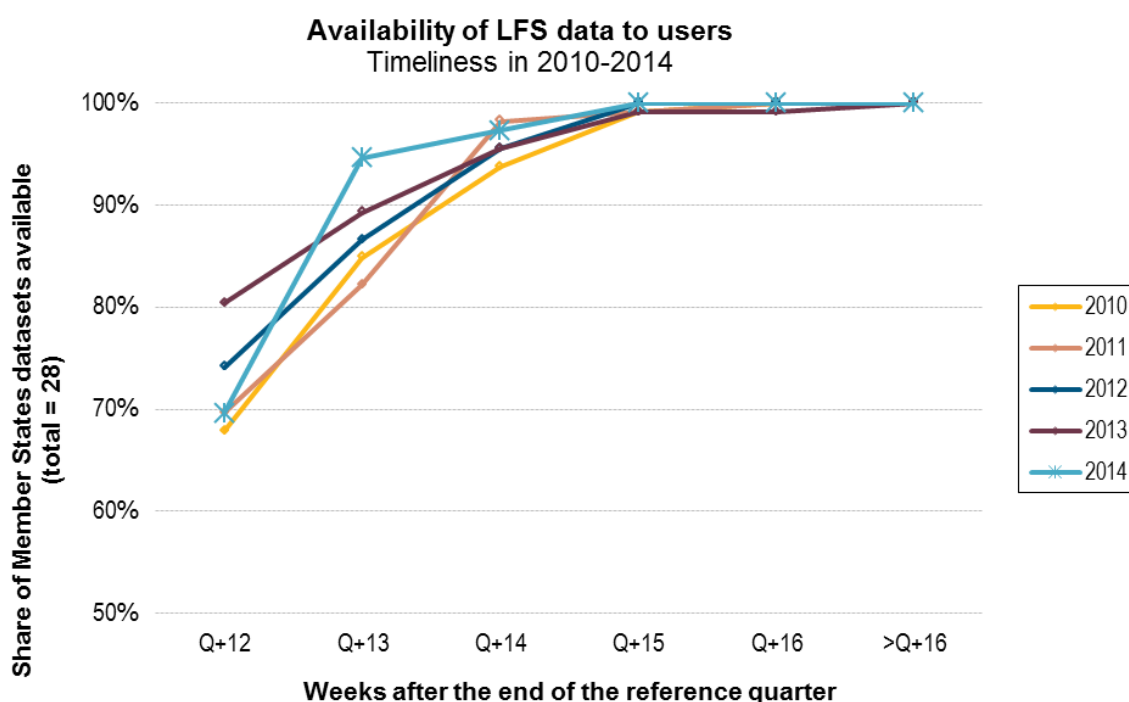
Timeliness of EU-LFS data has improved over the period examined. In 2010, 85 % of Member State datasets were available for extractions 13 weeks after the end of the reference quarter. By 2014, this figure has increased to 95 %.

The *punctuality of statistics* is defined as the time lag between the announced release date and the actual release date. For several years now, Eurostat has been publishing the planned release dates of quarterly and annual main EU-LFS indicators. During the period 2011-2014, all announced publication deadlines were met.

Eurostat also envisages improving further the timeliness of dissemination of EU-LFS results by shortening the deadline for data delivery to Eurostat in the future. Timeliness of EU-LFS data is also a key point for estimating monthly unemployment rates. As soon as national data are processed by Eurostat, they are used in the compilation of the next monthly unemployment rate calculation. The monthly unemployment rate is published approximately 30 days after the end of the month.

3.3.   Accessibility and clarity

Eurostat disseminates EU-LFS statistics in several ways. The main tool is Eurostat's online database, offering more than 400 tables of detailed EU-LFS data (quarterly, annual, household and ad-hoc module results). Headline Europe 2020 indicators are also published in a specific section of the website[14]. These tables cover only the most important EU-LFS results. Eurostat produces other combinations of EU-LFS variables as tailor-made tabulations on demand from users.

EU-LFS microdata are also highly relevant for scientific purposes. They are requested by more and more researchers from universities, research institutes and national statistical institutes across Europe and beyond. Eurostat has been providing microdata free of charge since 2011. Access is granted in accordance with the terms set out in Commission Regulation (EC) No 557/2013[15] to ensure the protection of survey respondents' personal data. The data files, consisting of individual records, are 'anonymised' to prevent unlawful disclosure of personal data.

Detailed documentation (metadata) is provided to users through various dissemination channels. General information is disseminated for the public at large on the EU-LFS section of the Eurostat website and, in even more detail, under Statistics Explained[16]. Specific information on the content and quality of statistics is disseminated in an annual methodological publication describing the characteristics of the national surveys and in an annual quality report summarising the results achieved by the EU-LFS[17]. In addition, specific metadata is attached to the EU-LFS statistics disseminated in Eurostat's online database. Since 2014 information from the National Quality Reports of each participating country is published on-line.

Countries regularly improve their LFS, either in its methodology or processes. If such improvements lead to breaks in EU-LFS data, the national statistical institute involved informs Eurostat. Significant breaks are documented and labelled in Eurostat publications[18]. Eurostat also publishes a special dataset called 'LFS main indicators', in which past series are adjusted for breaks and occasional data gaps are filled.

3.4.   Comparability

The EU-LFS draws on a high degree of harmonisation of concepts, definitions, classifications and methodologies. Regulation (EC) No 377/2008 defines a common coding scheme, ensuring that all participating countries use the same variable definitions. Common classifications are used (e.g. NACE for economic activity, ISCO for occupations) and whenever these classifications are revised, Eurostat ensures that all countries taking part coordinate implementation. In addition, common explanatory notes provide detailed guidelines on the purpose, coding and implementation by national statistical institutes.

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[14]   http://ec.europa.eu/eurostat/web/europe-2020-indicators/europe-2020-strategy/headline-indicators-scoreboard
[15]   OJ L 164, 18.6.2013, p. 16.
[16]   http://ec.europa.eu/eurostat/web/lfs/overview
          http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey
[17]   http://ec.europa.eu/eurostat/web/lfs/publications/quality-reporting
[18]   The documentation on breaks in series in the EU-LFS is available:
          http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey (Chapter 1).

Methodological issues are discussed in a dedicated working group, the Labour Market Statistics Working Group, which fosters the exchange of experience and common practices among all participating countries.

To ensure that the measurement of unemployment is harmonised across all countries participating, Commission Regulation (EC) No 1897/2000[19] lays down an operational definition of unemployment, as well as principles to be followed for formulating the survey questions on labour status. The definition of unemployment is consistent with International Labour Organisation (ILO) standards, which were adopted by the 13th and 14th International Conferences of Labour Statisticians[20]. This ensures that EU-LFS statistics are comparable to those from other countries, especially those of other OECD members.

3.5.   Coherence

Coherence between population estimates based on EU-LFS and from demographic statistics is an important aspect of overall quality. Being a sample survey, the EU-LFS's results are calculated from the responses of a sub-set of the population. The responses are then benchmarked against the entire population. The data for population are based on the best estimates available at the time (broken down by sex and age groups to improve the accuracy of the procedure). In principle, this benchmarking procedure ensures coherence between EU-LFS and demographic statistics. Differences may, however, occur under exceptional circumstances. For instance, every 10 years, new population census results become available. Should a new census yield figures that differ from previous population estimates, a past series may have to be revised. In such a case, the revision policy for demographic statistics and EU-LFS may differ as regards length and timing, constrained by the availability of detailed information on the population for the 10 years between censuses. In many European countries the latest population census took place in 2011, and in around 20 countries it had knock-on effects on the LFS. Countries affected agreed on revising their data at least back to the year 2010, consequently ensuring that there will be no break in series for the Europe 2020 headline indicators based on EU-LFS data. All necessary back-data revisions of the EU-LFS should be completed by the end of 2015.

As regards coherence of unemployment estimates, many countries also publish statistics on the number of persons registered at the public employment office and looking for work. The LFS unemployment figures and the number of registered job seekers differ because of the different nature of the data collected. While the EU-LFS draws on a harmonised methodology to survey households as regards their employment activities and availability for work, the public employment offices' administrative records comprise an exhaustive list of individuals registered and eligible for unemployment benefits. As the criteria for registration depend on national social policies, statistics on registered job seekers are neither comparable across countries nor over time.

Another area in which statistical coherence is important concerns the estimation of employment, which can be provided both from LFS and from national accounts. Estimates are not necessarily the same. This is due to differences in methodologies (the concepts and coverage of the population are not identical), but also to different compilation processes.

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[19]   OJ L 228, 8.9.2000, p. 18.
[20]   The implementation of the newly adopted ILO definitions of employment and unemployment by the 19th International Conference of Labour Statisticians is described in Chapter 4.

National accounts are compiled by comparing and combining all relevant data sources available in a country, taking the best from each source so as to obtain a comprehensive result. They also seek coherence between employment and production (Gross Domestic Product, GDP). The LFS is one data source in that process, as well as business surveys, employment registers or social security registers. The consistency between LFS and national accounts has been addressed by the Labour Market Statistics Working Group. Eurostat monitors the differences between the two estimates, and several national statistical institutes have analysed the causes and the size of the differences. In some cases, they have published reconciliation tables between the two datasets.

When comparing LFS with national accounts it can be stated that the LFS is more suitable for measuring participation in the labour market (i.e. employment and unemployment rates, activity rates, etc.), or for analysing the situation of specific socio-economic groups in the population (e.g. by age, gender or educational level).

4. INITIATIVES TO FURTHER IMPROVE THE LABOUR FORCE SURVEY

4.1. The LFS in a modernised system of social statistics

Building on the Commission's 2009 'Communication on the production method of EU statistics: a vision for the next decade[21], an initiative to modernise European social statistics was launched. This then developed into a concrete strategy, as set out in the 2011 Wiesbaden Memorandum[22]. It was agreed that the production of social statistics needed to be made more efficient, while maintaining the same high standards of quality, by developing a common architecture for European social statistics.

Modernising social statistics also has an impact on the Labour Force Survey. The European Statistical System is currently carrying out a comprehensive review of all EU-LFS variables, with the aim of adapting the information collected in the survey to current and future user needs. As an example, the revised ILO standards for measuring employment, unemployment and other forms of work, adopted by the 19th International Conference of Labour Statisticians in Geneva, Switzerland (2-11 October 2013[23]) , need to be implemented in the EU-LFS.

Within the process of modernising European social statistics, Eurostat and the Member States are also working towards greater harmonisation of data across surveys. This should allow increased use of the information collected, by e.g. crossing information from different data sources. To achieve this goal, the definition, concepts and codes of a subset of variables collected from more than one European social survey are being standardised.

Furthermore the revision of the EU-LFS encompasses an improved timeliness for the data transmission to Eurostat, a revision of the precision requirements and further methodological work.

In addition to the practical changes described above, the modernisation of social statistics should lead to changes in the legal framework. A new framework regulation for social statistics covering the EU-LFS is currently being prepared.

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[21] COM(2009) 404.

[22] https://www.destatis.de/EN/AboutUs/Events/DGINS/Document_Memorandum.pdf?__blob=publicationFile

[23] http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_230304.pdf

4.2.   Extending the EU-LFS to additional candidate countries

Currently 33 countries participate in the EU-LFS, meaning that they transmit data to Eurostat in line with Council Regulation (EC) No 577/98 (EU-28, two candidate countries and three EFTA countries). The candidate countries included are Turkey and the Former Yugoslav Republic of Macedonia. Eurostat is working closely with the statistical offices of other candidate countries to help them make progress towards compliance with Council Regulation (EC) No 577/98 in terms of survey content and quality. Montenegro and the Republic of Serbia have already started sending LFS data to Eurostat. Once their national surveys meet the requirements of the European regulations, their data will also be disseminated by Eurostat.

4.3.   Developing new statistical products

Statistics to capture the dynamics on the labour market

Changes in the labour status of individuals are of great interest because they provide additional information on the general situation of the labour market, including its flexibility or rigidity, and on the situation of specific groups. Such data on labour market dynamics allow for instance analysis on how many and which types of people became unemployed or found a job over a certain period of time. As a result, it is possible to identify the groups which have a better chance of finding a job, and the vulnerable groups that are more at risk of becoming or remaining unemployed.

Labour status transitions can be measured using flow statistics. Meeting this data need with the EU-LFS is not straightforward, as the survey was originally designed for gathering stock information (e.g. the number of unemployed persons at a given point in time), rather than for capturing flows by following individuals over time. Although this important new field of statistics in relation to the labour market is accompanied by methodological challenges, work has progressed in recent years. It is expected that publication of flow estimates based on EU-LFS data will allow monitoring transitions on the labour market from the end of 2015.

Revision of the EU-LFS main indicators

The EU-LFS main indicators are a collection of the most important EU-LFS results disseminated in Eurostat's online database. They serve to provide users with key statistics on the labour market. These EU-LFS main indicators are currently being revised, in order to further improve their quality. This includes the estimation of back data, filling in data gaps, the removal of breaks in the time-series where feasible, and most importantly seasonal adjustment allowing quarter-to-quarter comparisons. As the EU-LFS is a quarterly survey, this will provide policy makers and other stakeholders with additional possibilities of using the timely EU-LFS data. The first publications of these improved series are expected in 2016.

Additional information on the precision of EU-LFS results

Surveys like the EU-LFS provide estimates of indicators on the total population based on a randomly selected sample of that population. It is therefore important to provide, alongside with the estimate, information on its precision. Such quality indicators take the form of standard errors or confidence intervals. Eurostat and the Member States are currently working to establish methods and procedures for estimating the statistical precision of the EU-LFS main indicators. These harmonised quality indicators should improve the evaluation of EU labour market policies based on the EU-LFS.

5.   CONCLUSION

Eurostat monitors compliance with Regulation (EC) No 577/98. The Commission considers the implementation of the EU-LFS to be satisfactory and Member States are fully or almost fully complying with this legislation. Open issues are discussed with Member States, and, if necessary, action plans are drawn up jointly. The overall quality of the EU-LFS is good.

The European Statistical System is making efforts to continuously improve EU-LFS processes and methods. Progress has continued to be made despite a difficult environment, with scarce resources and a significantly reduced budget. Constant improvements of EU-LFS are under way within the modernisation of social statistics or as individual EU-LFS projects to adapt the survey to changes in user needs and new challenges. This work will continue steadily over the coming years