



Institut national de la statistique
et des études économiques

**Sponsorship Group on Measuring Progress,
Well-being and Sustainable Development**

Report of the Task Force

Multidimensional measurement of the quality of life

November 2011

The proposals expressed in this report have been used as basis for writing chapter 3.2 of the consolidated report of the Sponsorship Group on Measuring Progress, Well-being and Sustainable Development¹ which has been adopted by the European Statistical System Committee in November 2011.

Abstract. The "Stiglitz/Sen/Fitoussi" Commission on the Measurement of Economic Performance and Social Progress recommended in particular developing **Quality of Life indicators covering multidimensional measures of people's conditions that contribute to their life satisfaction.** This document is the report of the task force of Eurostat that was set-up to analyse how this challenge should be met by the European Statistical System.

Composition of the Task Force on "multidimensional measurement of quality of life"

Co-Chairs: Stéfan Lollivier (FR), Inna Steinbuka (Eurostat)

Secretary / coordinator: Jean-Louis Mercy (Eurostat)

Other Members:

Anna Bienkunska (PL)

Marleen de Smedt (Eurostat)

Mariano Gomez del Moral (ES)

Ludmila Ivancíková (SK)

Bartek Lessaer (DG EMPL)

Aura Leulescu (Eurostat)

Olav Ljones (NO)

Radek Maly (DG EMPL)

Liviana Mattonetti (Eurostat)

Marco Mira D'Ercole (OECD)

Rachel O'Brien (UK)

Guillaume Osier (LU)

Laura Sabbadini (IT)

Ulrich Spörel (DE)

Ceri Thompson (Eurostat)

Wim van Nunspeet (NL)

Andres Vikat (UNECE)

Paul Zahlen (LU)

¹ Available on Eurostat website at <http://epp.eurostat.ec.europa.eu> and on ESS website at http://epp.eurostat.ec.europa.eu/portal/page/portal/pgp_ess/about_ess/measuring_progress

Table of Contents

1.	INTRODUCTION	4
2.	STOCK TAKING (EXISTING INDICATORS, CONCEPTS AND METHODS)	4
2.1	Material living conditions	6
2.2	Productive and valued activities	6
2.3	Health	6
2.4	Education	6
2.5	Leisure and social interactions	7
2.6	Personal insecurity	7
2.7	Governance and basic rights	7
2.8	Natural and living environment	8
2.9	Overall experience of life	8
3.	GOOD PRACTICES AND RECOMMENDATIONS	8
3.1	General approach	8
3.2	The use and development of data sources: short and mid to long term	9
3.3	Dissemination and communication	10
3.4	Next steps	10
	ANNEX I: SELECTION PROCESS FOR INDICATORS	12
1	Step 1: review of sources	12
2	Step 2: screening	12
3	Step 3: selection of headline and supplementary indicators	12
	ANNEX II: STRUCTURED LIST OF INDICATORS (WITH HEADLINE INDICATORS)	14
	ANNEX III: SUMMARY AVAILABLE INFORMATION BY DIMENSION OF QUALITY OF LIFE (QOL)	18
	ANNEX IV – NATIONAL EXPERIENCES	27

1. Introduction

Quality of life indicators need to be understood through a multidimensional framework as proposed in the Stiglitz-Sen-Fitoussi commission report on the Measurement of Economic Performance and Social Progress. The TF endorsed a framework encompassing 8+1 dimensions, namely

- Material living conditions (income, wealth and consumption)
- Health
- Education
- Productive and valued activities (including work)
- Governance and basic rights
- Leisure and social interactions (inclusion/exclusion)
- Natural and living environment
- Economic and physical safety
- + Overall experience of life;

In their Sofia Memorandum, the Directors-General of the Statistical Institutes (DGINS) recognised the importance of high quality data about people's quality of life, based on an approach which encompasses the economic, social and environmental dimensions covering objective and subjective conditions.

The DGINS also recognised that the timeliness, comparability and coverage of various dimensions of Quality of Life statistics need to be improved and that, for comparison purposes at European level, the European Survey on income and living conditions (EU-SILC) should be developed as a core instrument for measuring Quality of Life dimensions not already covered by other statistical sources.

It also acknowledged that several other data sources (e.g. Labour Force Survey (LFS), Household Budget Survey (HBS), Time Use Survey (TUS) are available at ESS level; the DGINS committed to making better use of their complementarities with EU-SILC in order to provide a comprehensive system to measure different dimensions of Quality of Life.

It will be important to ensure that the process is coherent with the on-going process to modernise social statistics, in particular the better integration of the social surveys, the simplification process and the better use of administrative sources.

Specific focus should be given to highly relevant indicators, namely the Europe 2020 indicators (notably 'number of people at-risk-of-poverty or social exclusion'), used for policy monitoring in the context of the European Semester, as well as the need to consider indicators that would allow in-depth analysis of specific sub-populations such as children, women, immigrants, the elderly, the youth, the working poor, disabled people.

2. Stock taking (existing indicators, concepts and methods)

This section makes an inventory of the existing statistical information at EU level on Quality of Life, according to the dimensions set out by the Stiglitz report.

Current national experiences are described in annex IV.

Priority was given to existing surveys and administrative data within the ESS (EU-SILC, LFS, AES, HBS) in order to identify the ready-to-use statistical information. In addition to the established and official ESS surveys, the TF has also taken into account two future new surveys in the ESS: the European Health Interview Survey (EHIS) and the EU safety survey (SASU) and the future Household Finance and Consumption Survey (HFCS) carried out by the ECB. It also includes, but only for some areas under-covered by existing sources in the ESS, statistical information offered by non-official surveys (EQLS² and ESocS³).

The report provides a detailed overview of the extent to which current and future sources cover the different aspects of Quality of life. Moreover, it identifies by each sub-(dimension) the preferred data source based on several criteria: coverage at EU-level, frequency, timeliness, breakdowns available and relevant quality aspects (see Annex III).

As the stock taking exercise referred mainly to raw data (variables and sub-indicators that are directly measured), principles for organizing the large amount of possible relevant factors along a limited set of indicators were considered. In order to reduce complexity of the data and to allow analysis between dimensions it was proposed to compute, to the extent possible, one synthetic indicator for each Quality of Life (sub) dimension.

Synthetic indicators should be computed through the aggregation of several basic indicators (based on raw variables that are directly measured). The main principle is that these variables should be highly correlated so that we can support the assumption that they are measuring the same latent concept. In order to validate the computation of synthetic indicators, their uni-dimensionality and internal consistency could be assessed through multivariate analysis techniques (correlations, Cronbach Alpha, correspondence and factor analysis). This methodology can facilitate the computation of a limited number of 'homogenous' synthetic indicators for each (sub) dimension with little loss of information.

Some indicators proposed are also named "synthetic indicators" when they result from computations involving several variables⁴

Whenever indicators capture distinct, but equally relevant sub-dimensions their aggregation might lack transparency about the different facets of the phenomena. Aggregation in this case might proceed through composite indicators that usually include a wide range of dimensions. However, this approach can create analytical and interpretative problems as it would involve very heterogeneous measures that are very different conceptually and metrically. Moreover, as mentioned in the Stiglitz report, the problem is the arbitrary character of the procedures used to weight their various components. Therefore, uncorrelated basic indicators could be included in a scoreboard of indicators without aggregation.

Finally, for each dimension possible gaps which could/ should be tackled in the future statistical agenda were highlighted.

² European Quality of Life Survey (EQLS), launched in 2004 and 2007 by Eurofound (and with the 2011 wave now forthcoming);

³ European Social Survey (ESocS), an academically-driven social survey, funded through the European Commission's Research Framework Programmes, the European Science Foundation and national funding bodies in the participating countries;

⁴ Like for instance the indicator: Households where adults work less than 20% of their potential during the income reference year (Europe 2020 indicator)

2.1 Material living conditions

This dimension and related indicators of poverty and social exclusion constitute the core of the current EU-SILC questionnaire. The available information on income and material deprivation is already used in the computation of the European poverty indicators (at-risk-of-poverty and severe material deprivation). However, there are two other complementary dimensions necessary to describe the total economic value of the resources received, owned and used by people: expenditure and wealth. For future work, HBS could provide information on non-discretionary expenditures and HFCS for wealth variables (assets to debts ratio, debts to income service ratio). Further actions should consider timeliness aspects and provision of some regional estimates in SILC.

2.2 Productive and valued activities

Both LFS and SILC cover different aspects regarding the access to the labour market. LFS provides quarterly information on core employment variables (activity status, unemployment). SILC provides the low work intensity index⁵ that has a broader coverage, encompassing the absence of work opportunities at the level of the household that has a straightforward relationship with its economic well-being. Currently, LFS provides partial information about working conditions (shift or atypical work contract, involuntary part time work, work hours,) and covers other aspects with ad-hoc modules (health and safety at work, reconciliation work-family life). Further work needs to draw on recommendations of the Task Force on Quality of Employment⁶ to extend the current list of available indicators. Moreover, based on the Time Use Survey further work can identify suitable indicators on other productive activities: e.g. housework and childcare.

2.3 Health

There are several important indicators for this dimension that are available at national (and for some also at regional) level: life expectancy, healthy life years, infant mortality and age specific death rates. EU-SILC covers relevant health micro-indicators: self-perceived health (ECHI n°33), self-reported chronic morbidity (ECHI n°34), long-term activity limitations (ECHI n°35). This dimension will be covered more extensively in the future when all data of the European Health Interview Survey will be made available. However, this survey will most probably only take place every five years.

2.4 Education

LFS is a good source to provide education indicators. In the future, the revision of the questionnaire of the LFS might provide elements about *formal and, non formal education and*

⁵ See table 1

⁶ http://www.unece.org/publications/oes/STATS_MeasuringQualityEmploment.E.pdf

training, and will implement the new ISCED⁷. Moreover AES will provide information about informal training. The availability of the AES and the better integration with LFS could provide a good opportunity to improve the indicators for education. For testing adult competencies regularly the OECD initiative Programme for the International Assessment of Adult Competencies (PIAAC) can be seen as an interesting source for a regular indicator. For young people, the use of the results of the PISA survey of the OECD can be an alternative.

2.5 Leisure and social interactions

Concerning leisure and the trade-off with productive activities, the TUS survey provides information, but only every ten years and for a limited number of countries. A recent in-depth review of this survey has revealed that such frequency is not sufficient to meet the policy needs for such data. A task force has been established to elaborate, by the end of 2012, guidelines for further harmonisation of time use surveys, including guidance on the use of a light version of the time use survey for collecting some time use data between the full scale surveys⁸.

Some questions about *social participation and social interactions* are available in EU-SILC modules (2006). It is enough for the computation of a preliminary indicator for this dimension. In the future, this dimension could be reconsidered in the revision process of the EU-SILC legal basis. Once again, TUS can provide information on the existence and the intensity of these activities.

2.6 Personal insecurity

For *economic insecurity* some items on financial strain or over-indebtedness from EU-SILC could be used. For *job insecurity*, EU-SILC being a longitudinal base, it could be possible to compute for every worker the probability to lose his/her job one year after. This is possible with the LFS for the following quarter. In the future, questions should be added in the LFS or in LFS modules (or in EU-SILC) to improve the knowledge for this dimension.

Concerning physical insecurity, EU-SILC provides information on crime, violence and vandalism in the area. A possibility is to use administrative data, such as crime victimization rate and road fatalities, but these will be provided only at national/ regional level. In the future, the EU Safety Survey might provide more extensive information for this dimension.

2.7 Governance and basic rights

This dimension covers topics such as trust in institutions, satisfaction with public services and social cohesion. This set of items describes the quality of the society as perceived by the consumer. Its originality is to consider arguments of the utility function which are not only individual "consumption goods" for the consumer, but externalities or public goods. For the moment, the EQLS and ESocS provide a comprehensive set of questions for this dimension.

⁷ ISCED: International Standard Classification of Education

⁸ "Outcome of the in-depth review on time use surveys" by the Bureau of the Conference of European Statisticians, available at <http://www.unece.org/stats/documents/ece/ces/2011/6.e.pdf>

A middle term solution could be to consider including the topic in rolling modules of EU-SILC.

2.8 Natural and living environment

EU-SILC (and EHIS) already provides restricted information on the topic. More questions about environmental conditions are for the moment available in the EQLS and in administrative sources. Considering the wide spread agreement on the importance of this dimension, the inclusion of related questions in the modules of EU-SILC could be considered.

2.9 Overall experience of life

It would be important to ask at least one question (overall life satisfaction) every year for this dimension in EU-SILC. Moreover, the interpretation of this subjective question will be improved in EU-SILC because the source is longitudinal (better control for unobserved heterogeneity of individual preferences). Other questions on subjective well-being will be available in EHIS and will be collected also in the 2013 EU-SILC ad-hoc module. It will be important to take into account both evaluative questions and affect questions in future surveys.

Even if recommended by the SSF report, official statistics do not often measure affects. However, some experiences in the US and the French TUS to qualify activities on a scale of satisfaction could be generalized in the future.

The OECD guidelines on measuring well being will also be an input to take into consideration.

3. Good practices and recommendations

The measurement of quality of life is a relatively new field, and while existing practice in the EU can be documented, see previous section, it is perhaps too early to evaluate what is good or best practice. However, in comparison with the EU, it may be valuable to try to replicate some aspects of practice from the US with regard to implementation of Time Use Surveys.

The recommendations of the Task Force on Quality of Life are set out below with respect to the following aspects of developing indicators in this area A) general approach, B) the use and development of data sources: short and mid to long term, C) Dissemination and communication, and D) Next steps.

3.1 General approach

The TF recommends that Quality of Life is assessed using different classes of indicators, on the basis of the manner they are constructed:-

- *Synthetic indicators* for each (sub)dimension of Quality of Life, as defined earlier, such as "material deprivation".

- *Primary indicators* that represent additional basic indicators, measured at individual level on the basis of raw data from the survey. For additional basic indicators, no further aggregation of variables is performed as it is considered they represent heterogeneous aspects of a phenomenon, such as "quality of employment" indicators.
- *Complementary indicators* providing information at aggregated level (regional or national). These are indicators that cannot be computed at the individual level and which are particularly valuable for providing contextual information. Examples of aggregated indicators might be *healthy life years*, which is useful for making cross-country comparisons; *education*, where for young people vs. adults the PISA vs. PIAAC surveys could be taken into account for comparisons between countries; insecurity.

All these indicators should be integrated in the form of a scoreboard. As an example, the "Indicator webpages" is developed in Finland with about 100 social indicators listed.

The task force further recommends the following:

- The use of both objective and subjective items in the 8+1 domains: their use alongside each other is important for providing an adequate picture of Quality of Life. However, special care should be taken when comparing the answers to subjective and objective questions, as well as comparisons between countries;
- To include indicators available at the sub-national level, as many policies which influence Quality of Life are taken at the regional or even local level. In particular to identify indicators at the regional level within Member States given the importance of the regions in implementation of the EU Cohesion policy.
- To provide micro-indicators of Quality of Life to compare all sub-populations of high policy relevance such as those 'at risk of poverty or social exclusion', migrants, the elderly or other vulnerable groups
- That the indicators should enable analysis of interactions between dimensions and identification of multiple disadvantaged groups.

Overall, the TF does not recommend the use of a composite indicator that will incorporate all the dimension of quality of life.

Annex I details the selection process for indicators and annex II proposes a first list of indicators.

3.2 The use and development of data sources: short and mid to long term

In the short term a first set of indicators will be developed with data from existing sources within the ESS, and, where these data are lacking, with data from EU sources outside the ESS. The Task Force recommends:

- In the short term,

- to use primarily the existing ESS information
 - to use data sources outside the ESS providing that no ESS or national sources can capture adequately the dimensions of quality of life. If using non ESS sources, these should be clearly indicated and a judgement on quality provided.
- In the mid to long term,
 - To further develop EU SILC to cover better the QoL dimensions, either through its basic yearly questions and dedicated rolling modules.
 - To consider QoL aspects in the development of other surveys (in particular LFS, AES, EHIS and SASU)
 - To encourage a greater use of the Time Use Survey and the HBS, taking the US model as an example, and promoting stronger harmonisation and coverage of these instruments. In the future, questions to measure the satisfaction coming from activities could be included in the TUS diary.
 - It is expected as well that advance techniques are used in order to improve timeliness of SILC and simultaneous use of the information available in different surveys (data imputation statistical matching, improved coverage and harmonisation of core variable).

3.3 Dissemination and communication

The Task Force recommends an approach based on three levels of communication:-

- The development of a dedicated web site where up to date indicators can be accessed
- An annual report presenting a limited set of indicators with a brief synthesis of findings. These indicators would mainly be based on data collections occurring annually, or more frequently.
- The publication of a comprehensive ESS report every 5 years, using all the EU sources available, including non ESS sources where ESS sources are not available.

In the yearly report priority should be given, when possible, to indicators and variables from the same source that allow for sound methods of aggregation and in-depth analysis. However, the comprehensive report on a five yearly basis will use the all information coming from exiting data.

The Task Force also discussed a range of communication and dissemination forms which can be considered, based on national experiences such as radar charts (which have been used by France and Luxembourg), scoreboards and other forms of presentation.

3.4 Next steps

The TF recommends that Eurostat comes forward with a roadmap for the short and mid to long term in response to these recommendations

Creates an Expert Group with the mandate to further develop:-

- the overall list of indicators
- synthetic indicators and their dissemination formats (if required and feasible)
- the composition of the scoreboard based on the main synthetic, primary and complementary indicators.

The Expert Group should have a balanced membership representing producers, users and other stakeholders.

The TF recommends as well to the MS to support the initiative and its implementation through national work and experimentation along the lines of this report.

Annex I: Selection process for indicators

1 **Step 1: review of sources**

The TF took an overarching approach that relies on a full range of surveys and other sources for a comprehensive measurement of Quality of Life. Existing surveys and data collections at EU level were screened according to the relevance of their raw data regarding the 8+1 dimensions. The overall review of data sources for each dimension is in Annex III.

When several sources exist for the same information, preference was given to the source that allows for the best identification of sub-populations and links at individual level across dimensions, and sub-dimensions.

Where there is no suitable ESS source, data has been taken from non ESS sources (such as EQLS or ESocS). However, the quality of these data should be further investigated from a "fit for purpose" perspective.

2 **Step 2: screening**

The existing data were then again screened according to their relevance for the 8+1 dimensions. Judgement was used to reduce this list to those indicators that best take into account various criteria such as availability, feasibility, relevance. The selection was supported by consideration of existing good practice and academic literature. The process for selecting the indicators proposed reflects the recommendations described in the previous part of this summary.

For data at the individual level, in order to reduce the complexity, when a large amount of raw data (variables) covered the same (sub) dimension, some preliminary analyses were carried out in order to assess their consistency. The techniques used were correlations, factorial analysis (or similar) and Cronbach's alpha. Where consistency between several variables within the same sub-dimension was high, a *synthetic* indicator was created (health deprivation, for instance). Where there is limited consistency, the data was not amalgamated but rather kept in the form of *primary* indicators (quality of employment, for instance).

The *complementary indicators* are unavailable or impossible to discompose at the individual level (healthy life years expectancy, for instance) but are available as aggregates at the level of the population.

From the trawl of the existing data sources, and analysis of the data, the TF identified a first list of primary, synthetic and complementary indicators that related to each sub-dimension. These are listed in Table 1.

3 **Step 3: selection of headline and supplementary indicators**

The TF has identified usually one or two indicators emphasised in bold font as those that can act as *headline indicators* for each of the 8+1 dimensions. Preference is given to synthetic

indicators but if the aggregation conditions are not met, primary or complementary indicators indicated are considered as headline indicators.

However, the choice of which indicators to choose as headline indicators is normative and the preference for one sort over another is based on various factors such as their political, technical and communication utility. To act as headline indicators, the proposal includes both micro data derived indicators given the potential these afford for the analysis of specific sub-populations and inequalities and specific high profile, well known indicators (such as healthy life years) that have strong resonance for politicians and citizens.

Additional indicators that fit within an individual dimension are also kept in table 1 and can act as supplementary indicators.

Following this process areas of missing data have been identified resulting in proposals for further work in the longer term.

There is a need for further work, in particular with respect to:

- ⇒ *Extending the coverage of information where gaps are identified:* Recognised statistical standards need to be developed in certain areas: productive and valued activities, natural and living environment, economic insecurity, governance and basic rights.
- ⇒ *Methodological work:*
 - Detailed analysis should be carried out to fix the methodology related to the synthetic indicators
 - On various aggregation methods that can be applied (e.g. arithmetic averages, threshold based indicators)
 - Sensitivity analysis to document various choices and assess their impact on the indicators
 - Appropriate benchmarks need to undergo a validation process not only through in depth statistical analysis, but also on the basis of consultations with experts and stakeholders regarding the ‘basic human needs’ in the specific dimension
- ⇒ *Data integration principles and techniques* when indicators draw on different surveys (coherence of sources and sub-populations, consistency of the core social variables, data matching techniques)

Annex II: Structured list of indicators (with headline indicators)

The following table suggests – according to each Quality of Life dimension - a preliminary list of indicators together with the best available data source linked to the time planning. As an example, for a number of 'satisfaction' indicators, the data source for indicators at short term would be EQLS and it is planned to obtain at a longer term the data from the 2013 EU-SILC ad-hoc module.

Table 1: Structured list of indicators (headline are in bold)

Indicators name	Measurement	Class	Source	Planni ng Term
<i>Material living conditions</i>				
At-risk-of-poverty (rate)	(Share of) people with an equivalised disposable income below the risk of poverty threshold (equal to 60% of the national median equivalised disposable income) (Europe 2020 indicator)	Primary	EU-SILC	Short
Severe material deprivation (rate)	(Share of) people that accumulate at least 4 out of 9 deprivation items enforced lack of basic necessities, arrears, unexpected expenses (Europe 2020 indicator)	Synthetic	EU-SILC	Short
Constrained expenses	Basic expenses to total household budget ratio higher than 75%	Primary	HBS/EU-SILC	Long
Debt burden	Debt to assets ratio higher than 75%; loan service to income ratio	Primary	HFCS	Long
Quality of dwelling	Based on aggregation several items (too dark, overcrowding, leaking roof or dump floor, indoor toilet, bath or shower)	Synthetic	EU-SILC	Short
Income quintile share ratio	S80/S20	Complementar y	EU-SILC	Short
<i>Productive and valued activities</i>				
Low work intensity	Households where adults work less than 20% of their potential during the income reference year (Europe 2020 indicator)	Synthetic	EU-SILC	Short
Quality of employment	Temporary contracts	Primary	LFS/EU-SILC	Short
Quality of employment	Involuntary part time workers	Primary	LFS/EU-SILC	Short
Quality of employment	Long working hours	Primary	LFS/EU-SILC	Short
Quality of employment	In work poverty	Primary	EU-SILC	Short
Quality of employment	Encompassing set of indicators based on the UNECE/ILO/EUROSTAT task for recommendations (safety and ethics of employment; income and benefits from employment; working hours and balancing work and family life; security of employment and social protection; social dialogue; skill development and training; workplace relationships)	Synthetic/Prim ary	LFS+modul es	Long
Unemployment rate	Share of people unemployed as percentage of the active labour force	Primary	LFS	Short
Regional disparities	Coefficient of variation employment rates	Complementar y	LFS	Short

Indicators name	Measurement	Class	Source	Planning Term
Health				
Health deprivation	<i>The share of persons that assess their health to be fair/bad/very bad, or that report having a long-standing chronic illness/ long-standing health problem or declare having long-term restrictions in daily activities. (18-64, 65+) (Based on aggregation 3 European community health indicators)</i>	Synthetic	EU-SILC EHIS	Short Long
Healthy Life Years (HLY)	Potential number of years expected to live in good health	Complementary	Adm EU-SILC	Short
Access to healthcare	The share of people who reported that at least once in the previous 12 months they felt they needed medical or dentist care and they did not receive it either because a) it was too expensive, b) they had to wait or c) it was too far away. (18-64, 65+)	Synthetic	EU-SILC EHIS	Short Long
Life expectancy	Mean number of years still to be lived by a person who has reached a certain exact age, if subjected throughout the rest of his or her life to the current mortality conditions	Complementary	Adm	Short
Mortality rates	Age specific death rates (per 1000 inhabitants); infant mortality rates (per 1000 live births)	Complementary	Adm	Short
Education				
Early leavers from education and training	Share of people aged 18-24 with only a lower secondary school qualification and not involved in further education	Synthetic	LFS	Short
Educational attainment	Share of people that have low/medium/high education	Primary	LFS	Short
Lifelong learning	Share of people aged 25 to 64 that received education or training in the four weeks preceding the survey	Synthetic	LFS	Short
Cognitive skills	PISA/PIAAC scores	Complementary	OECD	Long
Leisure and social interactions				
Supportive relationships	Based on “quality of relationships” items (Ability to ask any relative, friend or neighbour for help, relatedness)	Synthetic	EU-SILC Ahm 2006 EU-SILC Ahm 2013	Short Long
Social contacts	Based on aggregation 'frequency contacts' items (people that meet 'less than once a week' with both relatives and friends)	Synthetic	EU-SILC Ahm 2006	Short

Indicators name	Measurement	Class	Source	Planning Term
Leisure and culture	Based on participation several activities(leisure, hobbies, voluntary work, cultural activities)	Synthetic/primary	TUS	Long
Social exclusion	Based on aggregation several items on people's feelings of exclusion/inclusion to society	Synthetic	EQLS	Short
Personal insecurity				
Economic insecurity	Based on aggregation "financial constraints" items (<i>financial burden housing cost, unexpected financial expenses, make ends meet</i>)	Synthetic	EU-SILC	Short
Physical insecurity	Based on aggregation insecurity items (violent crime, terrorism, burglary, safety in the dark)	Synthetic	SASU	Long
<i>Physical Insecurity</i>	<i>Homicide rate/100000 people</i>	<i>Complementary</i>	<i>Adm</i>	<i>Short</i>
Governance and basic rights				
Trust in institutions	Based on aggregation several items (trust various national institutions)	Synthetic	EQLS EU-SILC Ahm 2013	Short Long
Satisfaction with public services	Based on aggregation several items (various executive services)	<i>Synthetic</i>	EQLS	Short
<i>Active citizenship</i>	<i>Pools numbers</i>	<i>Complementary</i>	<i>Adm</i>	Short
Natural and living environment				
Local environment	Based on aggregation several items (Noise from neighbours; Pollution, grime and environmental problems)	Synthetic	EU-SILC	Short
<i>Air pollution</i>	<i>Percent of urban population exposure to pollution</i>	<i>Complementary</i>		
Overall life satisfaction				
Overall life satisfaction	Based on one "life satisfaction" item 0-10 scale	Primary	EQLS EU-SILC 2013 ahm	Short Long
Emotional Well-being/affects	Based on aggregation items on mental health items	<i>Synthetic</i>	EHIS EU-SILC 2013 ahm	Short Long

Annex III: Summary available information by dimension of Quality of Life (QoL)

Dimension	Topic	Source	Geographical coverage	Frequency	Timeliness	Breakdowns available	Specific quality/availability issues
1) MATERIAL LIVING CONDITIONS	Income (income components at household and personal level)	EU-SILC [HBS]	All EU MSs+other countries	Yearly (from 2004 onwards)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	- need to improve timeliness - need to include imputed rent and transfers in kind for better country comparability - need to improve regional estimation
	Consumption (level and structure consumption at household level; proportion of constrained consumption)	HBS ⁹	All EU MSs+other countries	- every five years (2005, 2011)	12 months after data collection	- basic socio-demographic - income class -national	- need to improve comparability across countries - low frequency
	Wealth (assets, indebtedness)	HFCS ¹⁰	Euro area MSs	- every 2/3 years (2011)	12 months after data collection	- basic socio-demographic - income class - national	- limited geographical coverage,
	Material deprivation, housing conditions, economic strain/indebtedness	EU-SILC	All EU MSs+other countries	Yearly (from 2004 onwards)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	-need to improve timeliness - need to improve regional estimation

⁹ Household Budget Survey

¹⁰ Household Finance and Consumption Survey (ECB)

Dimension	Topic	Source	Geographical coverage	Frequency	Timeliness	Breakdowns available	Specific quality/availability issues
	Material deprivation	SILC modules	All EU MSs+other countries	Ad- hoc (years 2009)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	- low frequency
	Housing conditions	SILC modules [Census]	All EU MSs+other countries	Ad- hoc (years 2007, 2012)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	- low frequency
2) PRODUCTIVE AND VALUED ACTIVITIES (WORK)	Working conditions (status in employment, atypical contracts, permanency job, constrained part time, decent hours)	LFS ¹¹	All EU MSs+other countries	Quarterly/Yearly	quarterly series – 120 days	- basic socio-demographic - wage -regional	- partial coverage of the dimension
	Working conditions (Low work intensity households, status in employment, short term contracts, constrained part time)	EU-SILC [LFS]	All EU MSs+other countries	Yearly (from 2004 onwards)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	- partial coverage of the dimension
	Health and security at work	LFS- modules	MSs+other countries	Ad-hoc (2007, 2013)	18 months after reference year	- basic socio-demographic - wage -regional	low frequency

¹¹ Labour Force Survey

Dimension	Topic	Source	Geographical coverage	Frequency	Timeliness	Breakdowns available	Specific quality/availability issues
	Occupational diseases, accidents at work	Administrative data	All EU MSs+other countries	yearly	18 months after reference year	Breakdowns by gender, age	- comparability problems - no breakdown on socio-economic characteristics
	Trade-off work-family life	LFS- + LFS modules [TUS]	MSs+other countries	Ad-hoc (2005, 2010)	18 months after reference year	- basic socio-demographic - wage - regional	low frequency
	Time use	TUS ¹²	15MSs	Every 10 years (2008/2011)	12 months after reference year	- basic socio-demographic	- limited geographical coverage - low frequency
3) HEALTH	HLY (Healthy Life Years)	Demographics +EU-SILC [EHIS]	All EU MSs+other countries	yearly	18 months after data collection	-breakdowns available by gender and age	- no breakdown on socio-economic characteristics - comparability issues for some countries and break in series

¹² Time Use Survey

Dimension	Topic	Source	Geographical coverage	Frequency	Timeliness	Breakdowns available	Specific quality/ availability issues
	Life expectancy, infant mortality, age specific death rates	Administrative data	All EU MSs+other countries	yearly	Input data needed to calculate the indicators are collected on voluntary basis with "deadline" for national data 9 months and for regional data 12 months after the reference year. Indicators are then calculated with different schedule after a validation phase.	-life expectancy and death rates: breakdowns available by age and sex; national/ regional - infant mortality: by age; national/regional	<ul style="list-style-type: none"> - breakdown by education level (ISCED97 broad groups) available for life expectancy for a limited number of countries - no breakdown on other socio-economic characteristics -countries can send revision of input data at any time during the year and indicators are then recalculated - EU/EA aggregates have short time series because they are calculated only when all Member States composing them are available (no estimates are done for missing data) - infant mortality by age not provided by all countries

Dimension	Topic	Source	Geographical coverage	Frequency	Timeliness	Breakdowns available	Specific quality/ availability issues
	Health status (Self reported health/ Limited activities due to illness) Access to healthcare (unmet needs; visits to the doctor; social benefits)	EU-SILC [EHIS]	All EU MSs+other countries	Yearly (from 2004 onwards)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	- partial coverage of the dimension - unmet need: comparability issues since they reflect more national features in the system of health care than real discrepancies between MS but those questions are requested from DG SANCO
	Health status (detailed) Access to healthcare (detailed) Physical Activity Psychological wellbeing	EHIS ¹³	17 MS (2007-2008) All MSs from 2014 (UK?)	Every five years (?) from 2014 onwards	12 (15) months after data collection (not yet decided)	- basic socio-demographic - income	- partial coverage for the moment
4) EDUCATION	Education attainment	EU-SILC [LFS]	All EU MSs+other countries	Yearly (from 2004 onwards)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	- partial coverage of the dimension
	Education attainment, Current education activity (formal, not formal)	LFS	All EU MSs+other countries	Yearly	6 months after reference year	- basic socio-demographic - wage -regional	- partial coverage of the dimension

¹³ European Health Interview Survey

Dimension	Topic	Source	Geographical coverage	Frequency	Timeliness	Breakdowns available	Specific quality/availability issues
	Education attainment, Current education activity Access to education	AES ¹⁴	All EU MSs+other countries	Every 5 years	12 months after reference year	- basic socio-demographic	- low frequency
	Pisa Scores	OECD	OECD+ Estonia+ BRIICS	2000-2009(reading), 2003(math), 2006(science)		-breakdowns available by age, gender, parents' socio-economic background	- low frequency
	Financial data education, financial aid, enrolment/graduate data	Joint UIS (Unesco)/OECD/ EUROSTAT	All MSs+other	Yearly	18 months		- no breakdown on socio-economic characteristics
5) LEISURE AND SOCIAL INTERACTIONS	Culture, sport and leisure Social participation (Associations, Voluntary work) Social interactions (Relationships with relatives, with friends, help from others)	EU-SILC module	25 MSs+other countries	Ad- hoc (2006)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national (partially regional)	- limited coverage and not regular data collection
		EQLS	All EU MSs+other countries	Every four years (2003, 2007, 2011)	12 months after data collection	- basic socio-demographic - income class/partial MD - national	- need to improve sampling design - small sample size
		ESocS	Partial MSs(26, 25, 30)	Every two years (2004, 2006, 2008)	12 months after data collection	- basic socio-demographic - national	- not all countries covered
		TUS	15MSs	Every 10 years (2008)		- basic socio-demographic	-limited geographical coverage and low frequency

¹⁴ Adult Education Survey

Dimension	Topic	Source	Geographical coverage	Frequency	Timeliness	Breakdowns available	Specific quality/ availability issues
6) ECONOMIC AND PHYSICAL SAFETY	Economic insecurity (economic strain, job insecurity, financial burden)	EU-SILC [HBS]	All EU MSs+other countries	Yearly (from 2004 onwards)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national, partially regional	-partial coverage dimension
	Job Insecurity	LFS/EU-SILC	All EU MSs+other countries	Yearly	6/18 months after reference year	- basic socio-demographic - wage -regional	-based on longitudinal data
	Economic insecurity (Over indebtedness)	SILC modules [HFCS]	All EU MSs+other countries	Ad- hoc (years 2008)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	- not regular data collection
	Physical insecurity (crime, violence and vandalism in the area)	EU-SILC [SASU]	All EU MSs+other countries	Yearly (from 2004 onwards)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	-partial coverage dimension
	Self reported physical insecurity (worries about crime, burglary, safety in the dark)	EU-SAFETY SURVEY	18 MSs	2013+?	12 months after data collection	- basic socio-demographic - national	- future survey - low frequency
	Crime victimization rate, road fatalities	Administrative data	All EU MSs+other countries	Yearly	18 months after reference year (death certificates) 12 months (recorded police)	Breakdowns by age, gender Regional/national	- depending on the crime, problems of comparability across countries - problems of coverage due to under-reporting

Dimension	Topic	Source	Geographical coverage	Frequency	Timeliness	Breakdowns available	Specific quality/availability issues
7) GOVERNANCE AND BASIC RIGHTS	Trust in institutions Satisfaction with public services	EQLS/	All EU MSs+other countries	Every four years (2003, 2007, 2011)	12 months after data collection	- basic socio-demographic - income class/ partial MD - national	- need to improve sampling design - small sample size
	Active citizenship (Voting behaviour, Participation in political parties, professional associations) Social cohesion (interpersonal trust, perceived tensions)	ESocS	Partial MSs+other countries (26, 25, 30)	Every two years (2004, 2006, 2008)	12 months after data collection	- basic socio-demographic - national	- not all MSs covered
8) NATURAL AND LIVING ENVIRONMENT	Environmental conditions (Noise, Pollution, grime and environmental problems)	EU-SILC	All EU MSs+other countries	Yearly (from 2004 onwards)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	-partial coverage of the dimension
	Environmental conditions	Administrative data	All EU MSs+other countries	Yearly			
	Access to basic services, recreational or green areas	EQLS	All EU MSs+other countries	Every four years (2003, 2007, 2011)	12 months after data collection	- basic socio-demographic - income class/ partial MD - national	-need to improve sampling design - small sample size
	Access to basic services	EU-SILC module	25 MSs+other countries	Ad- hoc (2007)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	-not regular data collection

Dimension	Topic	Source	Geographical coverage	Frequency	Timeliness	Breakdowns available	Specific quality/ availability issues
9) OVERALL EXPERIENCE OF LIFE	Overall satisfaction Affects Well-being	EQLS/ESocS	All EU MSs+other countries	Every four years (2003, 2007, 2011)	12 months after data collection	- basic socio-demographic - income class/ partial MD - national	-need to improve sampling design - small sample size
		SILC modules	All EU MSs+other countries	Ad-hoc (2013)	12 (15) months after data collection	- basic socio-demographic - Europe 2020 - national(partially regional)	- not regular data collection

ANNEX IV – National experiences

Some Member States have already started to establish actions and programmes for the measurement of Quality of Life at national level:

From 2010 onwards, in **France**, INSEE-FR has introduced - by way of a drop-off questionnaire for a subset of households - subjective indicators on Quality of Life in the French version of EU-SILC. France collects a large basket of deprivation items, from which one can calculate a poverty-rate in living conditions (8 deprivations out of 27)¹⁵. INSEE-FR also implements an experimental mixed-mode survey which aims to gather in the same questionnaire all the dimensions of Quality of Life. The purpose is to identify populations that cumulate poor scores on Quality of Life indicators in many dimensions. INSEE-FR has also experimented in the French TUS affect questions associated with specific time episodes in the diary¹⁶;

For **Luxembourg**, in autumn 2009, STATEC-LU published his 5th annual report on labour and social cohesion (« rapport travail et cohésion sociale »). The report develops a conceptual framework of « social cohesion » leading to a set of indicators going beyond the « traditional » indicators like poverty, deprivation, employment or unemployment rates. The report is based on both subjective and objective indicators. Furthermore, in April 2010, the Luxembourg government asked the Economic and Social Council (Conseil économique et social) and the High Council for Sustainable Development (Conseil supérieur pour un Développement durable) to develop a composite indicator

In **Norway**, Statistics Norway conducts surveys on level of living, which include material deprivation items. A debate took place in the Norwegian Parliament whether a Gross Happiness Index should be calculated;

In the **Slovak Republic**, Statistics Slovakia has developed a national project on well-being and started discussions on strengths and weaknesses of subjective measures of well-being;

In **Poland**, CSO included questions of subjective nature in its multi-dimensional, cyclic survey on living conditions, carried out in past years; these subjective measures were also largely used in a new multidimensional social cohesion survey, implemented in the first quarter of 2011. The innovativeness of this survey consists in its complexity, which provides an opportunity to analyse various aspects of individuals' situation. The results of survey are expected to make possible a comprehensive and reliable assessment of quality of life in Poland. Its cyclic repetition (it is assumed to take place every five years) would allow for the monitoring of changes in social development, including: the assessment of the fight against poverty in terms of its effectiveness; social integration; as well as the development of human and social capital;

ONS-UK is developing new measures of national well-being and it undertook a national debate with people, organisations, and businesses across the UK to ask what matters most in people's lives and what is important for measuring the nation's well-being. The National Well-being Programme¹⁷ is set to provide wider measures of well-being to fully capture the economic performance and societal progress in the UK. The National Statistician has

¹⁵ http://www.insee.fr/fr/publications-et-ervices/dossiers_web/stiglitz/qualite_de_vie.pdf

¹⁶ http://www.insee.fr/fr/themes/document.asp?reg_id=0&ref_id=ip1378

¹⁷ <http://www.ons.gov.uk/well-being>

established an advisory forum and a technical advisory group for measuring national well-being to ensure that the indicators that are developed are fit for purpose; relevant for both the public and for policy making purposes. As part of the work programme ONS has also introduced new questions on the Integrated Household Survey from April 2011, to give experimental measures of Subjective Well-Being in order to provide a fuller picture of the well being of citizens in the UK

Statistics **Finland**, together with the Prime Minister's Office, has established the 'Findicator' webpages¹⁸, in which about 100 social indicators are listed; these indicators cover domains such as education and research, environment, health, labour market, security, income and indebtedness;

The **Belgian** Federal Science Policy Office is looking into theoretically sound and democratically legitimate indicators of well-being in Belgium (WellBeBe). The aim is to construct an alternative indicator to GDP, based on a dynamical concept of well-being which considers the individual in his whole life-cycle and which includes the notion of the social structure through the concept of 'life chances';

In **Italy**, Istat since the mid 90's has developed a comprehensive system of information on social conditions and quality of life integrating objective and subjective information in their surveys. In 2010, as a follow up of the Stiglitz report, Istat completed its well-advanced the set of subjective information with questions on overall life satisfaction, interpersonal trust and institutional trust. Moreover, Istat launched a national debate around the topic of national wellbeing and how to measure it and has started three different initiatives. A national consultation carried out to a sample of 50,000 individuals which were asked to rate (0 to 10) the importance of different dimensions of well-being. A political Steering Group on the Measurement of Progress in Italian Society. A Scientific Committee for the development of statistical indicators.

In addition, a number of promising examples of good practice have also been gathered by TF3, such as the efforts of **INE-Spain** who has applied automated treatment to provisional results of 2007 and 2008 EU-SILC data and found that the conclusions are similar for the results at national level and for some aggregates (sex and large age groups). By using this method ES has been able to arrange a first release of EU-SILC data two months after the data collection.

The measurement of quality of life is a relatively new field, and while existing practice in the EU can be documented, see previous section, it is perhaps too early to evaluate what is good or best practice. However, in comparison with the EU, it may be valuable to try to replicate some aspects of practice from the US with regard to implementation of Time Use Surveys.

¹⁸ http://www.findikaattori.fi/index_en/