MAKSWELL
MAKing Sustainable development and WELL-being frameworks work for policy analysis

www.makswell.eu

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Dissemination and Communication activities of project results

Deliverable 6.5

Mid-term workshop 2

"MAKSWELL: Main findings and looking forward"

Satellite event at NTTS2019

15 March 2019

Brussels, Charlemagne building, 107 Rue de la Loi - Room JENK

ISTAT

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Deliverable 6.5

Mid-term workshop 2

Summary[1]

The second mid-term workshop of the project took place on 15th March 2019 as a satellite event hosted within the major relevant Conference of New Techniques and Technologies for Statistics (NTTS) 2019 scheduled in Brussels from 12th to 14th March 2019 at the Charlemagne Building in 170 Rue de la Loi organised by Eurostat.

This second Workshop represents the fourth milestone of MAKSWELL Project and an important opportunity to show the project's results and activities as well as the steps forward to carry on the work in the second part of its lifecycle, to a targeted public registered for this event and to all the viewers from all over Europe which had the possibility to follow the streaming of it.

[1] Special thanks go to Tamara Zangla (Istat) and Filippo Lioy (Istat) for their support in the review of the web streaming presentations and the layout of the document.

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INTRODUCTION

The planning of the second MAKSWELL Workshop on 15th May 2019 was established on the main aim of task 6.4 within work package 6 "Dissemination and Communication activities of project results", which is the discussion of the actual information needs of users/communities for making explicit the way the statistical information proposed may effectively enter into the decision making process, for developing the best forms of data dissemination. It also responds to the key objective of WP6 to build up knowledge through the contact and reciprocal fertilization of NSIs, academics and stakeholders, identifying and contacting key practitioners to participate in debates and discussions.

In particular, MAKSWELL satellite event entitled "MAKSWELL: Main findings and looking forward" focussed not only on the results already carried on mainly in Work Package 1, 2, 3 and 4 but also on the steps to take to go further in the research activities to define how to support policymaking. It was hosted in the prestigious Charlemagne Building, Jenk Room, the heart of the European quarter in Brussels, where the major event of NTTS2019 had been organised by Eurostat from 12 to 14 March 2019.

It is worth mentioning some numbers about the event provided by NTTS2019 organisation team: there were 202 participants registered for the MAKSWELL project satellite event at NTTS2019 and there were 390 total live streaming connections from almost all the European countries.

1. Aim of the Workshop

MAKing Sustainable development and WELL-being frameworks work for policy analysis (MAKSWELL) is a co-ordination action project financed in the EU Horizon 2020 research and innovation programme. The project, coordinated by Istat with the partnership of other three NSIs (CBS, Destatis and HCSO), three Universities (University of Trier, University of Southampton and UNIPI) and a non-profit entity focused on public management and organisation (Consorzio MIPA) started its activities on November 2017 and will end on April 2020. MAKSWELL aims to extend and harmonising the indicators able to capture the main characteristics of the beyond-GDP approach proposing a new framework that includes them in the evaluation of the public policies. At the same time MAKSWELL would like to improve the most appropriate traditional indicators available using the new data collection tools and modern statistical methods to have timely and accurate data. The work plan is shaped around 8 work packages (WPs): 5 research WPs, a WP on management, one on communication and dissemination and one on ethics issues.

Focusing the attention on the research activities, the aim of WP1 has been the analysis of the frameworks on well-being and implementation of the Sustainable Development Goals at national and international level for policy making. A direct survey was conducted among the NSIs to gather information on well-being, SDGs and their use for policy evaluation. The aims of WP2, WP3 and WP4 is to help in the production of timely indicators selecting also new data sources (big data) and integrating them with traditional data (registers, survey data), especially where there are data gaps; the production of local estimates of poverty and living conditions are an example of the objectives of the WPs. WP5 will extend the previous results providing tools for policy making. At a macro level It will provide a framework that includes in the traditional macro econometric models specific measures for well-being. The work foresees the implementation of a pilot study for Italy and Hungary

Within this framework, aim of this second workshop of MAKSWELL is to disseminate the research results of the project and the on-going activities, encouraging the floor discussion on them, sharing the research experiences and promoting interactive discussions with invited keynote speakers and a qualified audience. In the first part of the workshop the work package leaders describe their activities, presenting first results, planned outputs and further developments. Two national experiences are presented showing the potential of statistical methodologies in the analysis of poverty indicators. The second part of the workshop is mainly intended as an occasion to gather suggestions for the project and to learn lessons from qualified speakers and audience. This is precisely the aim of the session on *New sources, frameworks and methods for official statistics* where the two speakers describe what is going on beyond GDP and on income distribution and inequality. In the session on *Challenges for statistics and policies* the participants to a round table give advice and suggestions for the future implementation of the project. The final speech on *The importance of well-being for policies*, presents the perspective from policy making that should direct the way the statistical information may support and effectively enter into the decision making process.

2. Agenda

2nd Workshop of MAKSWELL: Main findings and looking forward

satellite event at NTTS 2019

15 March 2019 - Brussels, Charlemagne building, 170 Rue de la Loi - JENK Room

Agenda

09.00 - 09.10 - Welcome and opening address

MAKSWELL project State-of-art

09.10 - 09.15 - Introduction to the MAKSWELL project (M. Gandolfo, *Istat*, Italy)

09.15 - 09.30 - Frameworks on well-being and implementation of the Sustainable Development Goals at national and international level for policy making – WP1 (A. Tinto, *Istat*, Italy)

09.30 - 09.45 - Non-traditional data sources for measuring sustainable development goal indicators – WP2 (J. A. Brakel, *CBS*, Netherlands)

09.45 - 10.00 - Regional poverty measurements – WP3 (F. Ertz – *University of Trier*, Germany)

10.00 - 10.15 - Potential uses of discontinuity analysis to support measurement of indicators – WP4 (P. Smith, *University of Southampton*, United Kingdom)

10.15 - 10.45 - National experiences:

- Monetary poverty indicators at local level: evaluating the impact of different poverty thresholds and the cost of living, (M. Pratesi, *University of Pisa*, Italy)
- Using Integrated Fuzzy and Relative to measure multidimensional poverty (NUTS2), (A. Lemmi, *University of Siena*, Italy)

Coffee break

New sources, frameworks and methods for official statistics (Chair: M. Pratesi, University of Pisa)

11.05 - 11.25 - Ten years after: from SSF to the HLEG report (M. Mira d'Ercole, *Oecd*, France)

11.25 - 11.45 - New methods for enriching official statistics on distributions and inequality (A. Leulescu, *Eurostat*, Luxembourg)

The challenges for statistics and policies (Chair: F. Bacchini, Istat)

11:45 – 12:25 - Round table: Suggestions for the project

Moderator B. Chaudhuri (DG RTD, EC)

F. Maggino (*University La Sapienza*, Rome / Italian Presidency of the Council of Ministers, Italy)
G. Umbach (*Globastat*, EUI)
M. Karlberg (*Eurostat*, Luxembourg)

12:25 – 12:50 - The importance of well-being for policies (L. Fioramonti, *Deputy Minister for University and Research*, Italy)

12:50 – 13:00 – Closing and farewell (F. Bacchini, Istat, Italy)

3. MAKSWELL Project State-of-art

3.1. Introduction to the MAKSWELL project – (M. Gandolfo)

Marina Gandolfo, actually covering in Istat the role of Head of the International Affairs Division, opened the first part of the session dedicated to the state of art of the project.

In particular, she stressed the importance of the event, representing a great opportunity both to achieve the specific project's objectives, thanks to the presence of some important speakers who are experts on the issues concerning the main challenges of the project, both to strengthen future collaborations between statistical community, academy and private sector that have common goals such us the improvement of official statistics within the European Statistical System.

Her presentation was focussed mainly in providing to all the Workshop's participants a general overview of the activities in the different Work Packages and of the partners of the consortium who are working on it.

The last part of her presentation was centred on the document requested by the European Commission, the so called "Reflection Paper", that gathered suggestions and considerations from the consortium and in general from the statistical community, in order to outline the new challenges and the research needs of official statistics to be explored in the next framework program "Horizon Europe".

Last but not least, she underlined the importance of the statistics that must be at the service of the users' needs in support of the choices operated by the policy makers.

3.2. Frameworks on well-being implementation of the Sustainable Development Goals at national and international level for policy making – WP1 (A. Tinto, Istat, Italy)

The presentation dealt with the work done and the main results in work package 1. This work package, that completed its activities last spring, had two main aims: the first one was to analyse the frameworks on well-being implemented in the European countries and to check the availability of sub-national data and links between frameworks and policy making; the second aim was to monitor the implementation of the Sustainable Development Goals. As she explained, after the publication of the report of the Stiglitz-Sen-Fitoussi Commission in 2009 there was a progressive development of frameworks to measure well-being as multidimensional concept and in 2015, countries adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs). Thus this growing attention to the beyond GDP indicators has

motivated the need to assess and monitor on the implementation in EU countries of such frameworks and on the implementation of the SDGs.

The outputs of the WP1 are two: D1.1, Report on international and national experiences and main insight for policy use of well-being and sustainability framework and D1.2, Definition of the existing database on Beyond GDP initiatives within official statistics.

Concerning the first deliverable, it is a report on international and national experiences structured into three main sections. In the first section, the most relevant international experiences were reviewed. It was described what Eurostat, OECD and the UN are doing and building on the information collected from the international inventories the National Statistical Institutes of the 28 EU countries were contacted to update and complement the information. For each country it was drafted a page containing a brief description of the activities underway on well-being and sustainability and providing the links to more background country information and to published indicators.

In the second section, a country by country review is made, asking to NSIs if they implemented in the country a framework to measure well-being, how was the implementation of SDGs progressing, their use for policy evaluation and the availability of sub-national indicators. The analysis shows that 19 countries over 28 developed a framework on well-being, in 11 cases the indicators are used in the national policy cycle. For 12 countries indicators are available below the national level. As far as the SDGs are concerned, the analysis of the country reports shows that all countries implemented, or are about to implement (Spain), the Agenda 2030. In 21 cases SDGs indicators are used in the national policy cycle. For 12 countries SDGs indicators are available below the national level.

In the third section, some initiatives selected as important for their high policy relevance are described. They refer to Sweden, France and Italy. With regard to Sweden, the government tasked Statistics Sweden to develop a framework for measuring well-being, in consultation with government offices, and to suggest a set of indicators. The 15 selected indicators were presented in the spring 2017 budget bill. For the SDGS, in Sweden there is a strong commitment to 2030 Agenda from the highest political level. Furthermore there is a long tradition of environmental and sustainability policy and broad participation of various stakeholders. With respect to France, in 2015 the French Parliament passed a law which requires the Government to submit an annual report on the progress in view of 10 new leading indicators that reflect the country's economic, social and environmental situation. The report will include also an impact assessment of the main reforms envisaged in light of these indicators. The timing of the report was set to coincide with the national budget process. In Italy in 2016, the Equitable and sustainable well-being (BES) has become part of the economic planning. The law 163/2016, which reformed the Italian budget law, established the integration of BES within economic programming, focusing on the effects of such policies on selected dimensions, which are fundamental for the quality of life.

The second output of the WP1, the deliverable 1.2 had the objective to produce an inventory of what is available at country level. For the SDGs a table was produced containing the web links to background information on the advancements of the country in the SDGs implementation, and to the indicators published by countries. For well-being frameworks a two steps output was produced. In the first step, an inventory of the domains by each country was made in order to define the multidimensional concept of well-being, comparing these indicators to those proposed by the OECD How's life initiative. In the second step the indicators are analysed domain by domain. In the comparison with the OECD How's Life? Initiative, for some countries additional domains are identified, this is the case for Italy with a domain on Innovation creativity and research and a domain on landscape and cultural heritage. At the indicators level, in the first column there is the list of indicators considered by the OECD, and in the country columns the indicators included by each country covering that domain are reported, which can be all in one domain or also available in different domains. The whole table, available on the MAKSWELL website contains a wide amount of information and can be used for several research purposes.

Finally, Alessandra mentioned briefly the reflection paper which is another important output of the project (Deliverable 5.1) prepared to define future pathways with respect of FP9 and strictly linked to the work she is doing. The document highlighted the main challenges for Official Statistics such as to improve the measurement of complex and multidimensional phenomena, answer to new knowledge needs, in terms of emerging themes and a finer territorial level, integrating data from traditional and new sources and the need to move forward for an evidence based policy making and promoting a statistical culture.

She concluded by hoping that within the common objectives of improving well-being measures and implementing the Agenda 2030 for Sustainable Development, it could be increased the cooperation among NSIs, other institutions of the statistical system together with all ministries, stakeholders, civil society and academia.

3.3. Non-traditional data sources for measuring sustainable development goal indicators – WP2 (J.A. Brakel, CBS, Netherlands)

Jan van den Brakel as leader of WP2 started his speech giving an overview of the activities and presenting the main purposes of work package 2. In particular, he said that the purposes of this WP are to give an overview of traditional and non-traditional data sources that are in place to produce SDG indicators; to provide methodological developments in using new data sources (big data), dealing with integration of traditional and non- traditional data sources and looking at quality aspects of big data (representatively, timeliness, …). Finally, to provide a review of good and bad practices and identifying needs for future research.

About the inventory of traditional and non-traditional data sources that are in place to produce SDG indicators, it was decided to make this inventory in three participating countries: Italy, Netherlands and Germany. As a first result he presented a summary for Italy, the only country at this stage of work that succeeded in producing this inventory. In the table that was presented, the

17 goals of SDGs are listed including details about, the number of indicators, the status, data sources, frequency, regional availability and the use of non-traditional data sources.

Then he presented some examples on the use of non-traditional data sources. In particular, he presented some projects that are currently running at the Centre for big data in Statistics Netherlands and at Istat. Among these, he mentioned the use of google trends to measure the propensity to move. Traditionally, this information is included in the household surveys but results have shown the higher success in predicting this intention from registers instead of asking this intention in the survey. The same with google trend. Then, he mentioned the use of scanner data at Istat for improving the Italian CPI. The next example, refers to the use of mobile phone network data in the Centre for big data at CBS to produce statistics on day time population, mobility, tourism, migration flows, poverty, economic growth. Then, he mentioned what is done in the Centre for big data at CBS where the webscraping is used to estimate if a company is innovative or not. This is also an important data source used for prices (CPI). Furthermore, the use of social media platforms to measure social tension and sentiment, including a nowcast exercise with the consumer confidence index. Finally, what he defines found data, which means data that are publicly available and can be combined to derive information that are not directly available. An example is the estimate of unmetered photovoltaic power using time series of electricity taken from the high voltage grid and time series on solar irradiance, day length, temperature.

Moreover he mentioned the use of remote sensing data, such as Copernicus project where satellite images are used to produce statistical information on land use in Germany and the use of satellite data at CBDS for measuring urban sprawl. Satellite data are also used to detect information on photovoltaic panels.

Then he described some methodological developments to use traditional and non-traditional data in the context of SDG indicators. As reported into the inventory, most sources are survey data or register data but there are also non-traditional data sources. Two approaches can be distinguished. One approach is to combine survey data with these non-traditional data sources by using various methodological procedures such as small area estimation models or time series models. In particular, he referred to the use of non-traditional data as covariates in model-based inference procedures for small area estimation and time series models. The second approach is to use non-traditional data source as primary data source, examples are in SDGs indicators such as satellite and aerial images to measure forest decline, urbanization, air quality; sensor data for traffic intensity, air quality; data measure the phenomena of interest. However, the data generating process for this data is unknown, it is difficult to generalize results to an intended target population, there is selection bias (similar to non-response in survey data). To this effect there are methods to correct for selection bias, such as calibration and weighting, quasi randomization or pseudo-design based methods, sample matching and model-based approaches. Finally, at University of Pisa they are working on methods to evaluate SDGs indicators. They are working on an input-state-output framework.

He concluded his speech presenting the index of the two deliverables of this work package that are due by the end of April. The results will be used as input for work package 3 where small area estimation methods are used for measuring poverty. Finally, at the end of the year there will be the deliverable 2.3.

3.4. Regional poverty measurements - WP3 (F. Ertz, University of Trier, Germany)

Due to a sudden illness, Florian Erzt was not able to attend the meeting and Jan van den Brakel was asked to present on behalf of Florian Erzt and Ralf Münnich their considerations on on-going activities and planned outputs of WP3. During the presentation Monica Pratesi joined Jan to illustrate the meanings of some slides.

The reduction of poverty is one of the EU's top priorities. Poverty and inequality indicators have primarily been estimated at the national level (EU-SILC data). As a large share of the EU's budget is directed to its cohesion policy, a closer look at European regions is needed. Accordingly, accurate regional estimates for indicators are needed and the respective statistical methodology has to be developed. Work package 3 has been structured to respond to this aim and its first deliverable, D3.1, will deal with these issues, including an overview of the indicators of measurement poverty and well-being and of data and methodologies.

The slide presentation went further describing the results of a study made by the University of Trier in estimating social indicators on LAU1 level for the Greater Region in Germany and showing the importance to take into account the boarder effects on poverty rates. Small area estimation procedures should take into account the problem related to the border area. The figures presented mean to show the different levels of accuracy and the message that is intended to convey is that at a local administrative unit (LAU1) the problem of border is important when you measure poverty. From an administrative point of view you have a cut of the border, but this is not a real cut in consumption, living conditions, income distribution and so on. The Trier group is interested in this problem and they are working on improving the precision of these estimates. Results show the importance to put together what we can do at small area levels in the country with what we can do along the borders.

Then, it was presented deliverable 3.2 and its index. After the introduction, the deliverable will focus on some applications, such as the use of scanner data for regional price indices and the use of remote sensing data for measuring poverty and well-being. It will include also advanced methods for future use and best practice recommendations.

The next set of slides presented deals with satellite and areal images. The resolution of the images is important. There are images referred to the same place with different resolutions. The more the resolution the more details you can catch. Obviously the more is the resolution the higher is the price of these satellite images. The meaning of these exercise in using satellite images is to highlight the need to use all the information we have to estimate poverty rates and to be as closer

as we can to the places where people live. It is important to estimate poverty rates at local level but most important they should be estimated at the level where people live.

3.5. Potential uses of discontinuity analysis to support measurement of indicators – WP4 (P. Smith, University of Southampton, United Kingdom)

The presentation of Paul Smith was intended to give a quick overview of WP4. The aim of this work package is about providing time series and multivariate methodology including nowcasting to be applied to well-being indicators and SDGs. Activities are structured in 3 main components which are: nowcasting and mixed frequency models for the integrated analysis of well-being and SDGs; multivariate analysis of indicators which can be very useful for well-being indicators due to their high number; finally, estimators of discontinuity. Paul said that his talk will concentrate mostly on this last point.

Concerning discontinuity, large part of quality of time series in official statistics comes from continuity but it is inevitable that from time to time you have changes. Many of those changes are planned but some of those are unplanned and they can have a big impact. Most changes in measurement, both if they are planned or unplanned, are discontinuities that should be keep distinct from real changes even if they are often confounded. However he stressed that it is sometime very hard to disentangle what is a real change in a given point and a change due to discontinuity. In order to apply this type of analysis you need to have a time series model that can be very complex to construct. To this effect state space models provide a flexible approach that fit with Kalman filter, stepwise updating and are especially suitable in rotating panels. Developed time series models give estimates for latest period based on partial information or incomplete rotations or related (higher frequency or faster) series. If you have related high frequencies they can be a good predictor, that is they allow nowcasting. They provide more timely or flash estimates that are model-based.

Once you have a time series model you can think about how to estimate discontinuity. You can add a parameter to consider discontinuity into the model. To this effect he presented a small example from UK international passenger survey showing a simulated situation from a real problem. This analysis intends to show the power of the model to detect a particular change. Another example he presented is from the labour force survey in Netherlands.

He continued the presentation showing how to apply this work to well-being indicators. In this case we can distinguish three cases. The first refers to “traditional” discontinuity analysis for planned changes. Then we have changes in related series underpinning model-based indicators that can depend on unexpected administrative data changes or big data changes. This last case is even worse and it is an outstanding problem how to detect such type of changes. Finally there are changes that come from the introduction of new related data.

With respect to estimates at regional level, thy are very important but changes at this level are harder to detect. We can do this by nowcasting with related series or we can borrow strength

across regions/time. Finally small area discontinuities can benefit from availability of prior series as good predictors. He showed an example in Wales where the five social surveys were all combined together to make a single national survey. He said that there is a project to produce detailed discontinuity estimates by region and survey and variable, based on pilot implementation with relatively small sample size.

Just to conclude from this work package, he pointed out that state space models provide a flexible way for modelling the evolution of time series and they allow also to incorporate many sources to fit a multivariate model. They also allow to do this discontinuity estimation which is important to handle changing methods (controlled) and changing data sources (often uncontrolled). Finally he said that there is still an outstanding question of how to detect some uncontrolled changes.

3.6. National experiences

3.6.1. Monetary poverty indicators at local level: evaluating the impact of different poverty thresholds and the cost of living, (M. Pratesi, University of Pisa, Italy)

Before starting her presentation, Monica Pratesi introduced quickly the team that is involved in this research. In particular, all the members are part of the Tuscan Interuniversity Research Centre on Advanced Statistics for the Equitable and Sustainable Development (ASESD) 'Camilo Dagum', founded and currently formed by professors and researchers of the Universities of Pisa, Siena and Florence and also from other Universities. The aims of the Dagum Centre include the promotion of multidisciplinary cooperation in the study of the different dimensions of poverty and deprivation, both from a methodological and applied perspective. The study that she is going to present stems from this very fruitful scientific cooperation.

Moving at the presentation, she started by mentioning the worldwide recognized importance of estimating poverty indicators at sub-national level. Poverty is a multidimensional concept and in this work the focus is on relative monetary poverty indicators. The results highlight that many factors may impact on the value of the sub-national poverty indicators. These are: the choice between income or consumption data, the use of national or local poverty lines, the local cost of living and the use of small area estimation techniques.

The aim of the study is to estimate the Italian households' Head Count Ratio (HCR) or At-Risk-of-Poverty-Rate (ARPR) using consumption expenditures from Italian Household Budget Survey and disaggregating these measures for the 20 regions (NUTS-2 level) and the 110 provinces (NUTS-3 level) in Italy. Three are the issues addressed: the use of national or local Poverty Lines (PLs) to estimate the incidence of poverty in Italy; the computation of Purchasing Power Parities (PPPs) that take into account differences in prices at a local levels and the use of Small Area Estimation techniques to estimate the ARPR and the PPPs for the Italian provinces.

The study highlights the impact of the use of sub-national poverty lines in measuring the poverty incidence. In other words, the use of different PLs has strong geographical implications in the evaluation of Italian households' poverty. Analysis goes deeper at the provincial level and a small

area model is used to obtain more accurate estimates. The model is based on a specification at area level the so called area-level Fay-Herriot model which uses as auxiliary variables the per-capita taxable income and the share of households that are owners of their house. Results suggest that the measures of monetary poverty incidence at provincial level change if we use national or local (regional or provincial) Poverty Lines.

Analysis shows that the risk of poverty rates are based on poverty lines and the cost of living should correct the risk of poverty. Thus, analysis measures household poverty incidence at provincial level using consumption data adjusted with regional PPPs.

Within this framework of analysis, Monica Pratesi concluded her presentation by pointing out that one of the future research target of MAKSWELL project is to use different sources of data to estimate local PPPs: one possibility is to use data on the rent prices coming from administrative registers; another possibility refer to the use of information on prices coming from scanner data. Finally, research aims to measure specific poor PPPs.

3.6.2. Using Integrated Fuzzy and Relative to measure multidimensional poverty (NUTS2), (A. Lemmi, University of Siena, Italy)

Achille Lemmi, Professor at the University of Siena and member of the Camilo Dagum /Tuscan Universities Research Centre, presented the second national experience. Due to time constraints, he decided to skip during the presentation some first general issues, focusing on the main message of his research. For more detail the full text of the presentation is available on the project website.

He explained that the method used in this research, the so-called fuzzy and relative method applied to multidimensional measures also at local level, is a method already experienced and consolidated in the international literature, particularly for developing countries. Thus the meaning of his presentation is mainly to describe what happens when this method is used at local level. Actually, the analysis shows that there are problems with data. This can be the occasion for stressing this problem and try to overcome it.

Poverty and social exclusion indicators are an essential monitoring tool, most useful when comparable across countries. They are important measures for informed policies and their usefulness grow when these indicators are disaggregated to lower levels, for instance at NUTS2 or lower levels. National estimates are particularly insufficient for monitoring poverty and social exclusion, as these fields require complex statistics that take into account the distribution. The correct statistics are necessarily based on intensive and relatively small-scale surveys of households and individuals.

Poverty is a fuzzy phenomenon and in this way the method used in this analysis does not divide a representative sample of a population into two groups separated by a poverty line. When you use a fuzzy method you do not need a poverty line but it is sufficient to define a fuzzy sets of poor according to a membership function and measuring the degree of poverty. After some further

methodological description, the presentation focused in more detail on the fuzzy model developed and on the estimations. Figures were presented showing the results obtained at NUTS1 level of the overall *non-monetary deprivation rates*. This overall indicator has 6 dimensions among which there are the *environmental problems* that concern problems with the neighborhood and the environment, such as pollution, crime, violence, vandalism and noise. With respect to the *environmental problems*, analysis shows that while at NUT1 level the geographical distribution is the same of the overall non-monetary deprivation rates, when you go to a NUTS2 level, the distribution highlights places of poverty that do not correspond to real places of poverty.

Besides the scientific results of his analysis, in his presentation Achille Lemmi wanted mainly to stress the need for more disaggregated data that are not made available to researchers. This precludes them from estimating poverty at NUTS2 or lower levels. Moreover, full information on sampling design (stratification, clustering, implicit stratification, and so on…) is only partially reported or non-reported at all. This precludes the estimation of variance of 'direct estimates', which are the needed input of typical SAE methods, such as EBLUP.

4. New sources, frameworks and methods for official statistics (Chair: M. Pratesi, University of Pisa)

Monica Pratesi, as chair of this session, explained the meaning of this workshop that besides presenting the on-going activities of MAKSWELL project and its forthcoming outcomes was mainly intended as an occasion to gather suggestions and to learn lessons from the qualified speakers and audience. This is precisely the aim of this session *on New sources, frameworks and methods for official statistics* where the two speakers will teach us what is going on beyond GDP and on distributions and inequality.

4.1. Ten years after: from SSF to the HLEG report - (M. Mira d'Ercole, Oecd, France)

After the introduction of Monica Pratesi the first keynote speech was made by Marco Mira d'Ercole Head of the Division for Household Statistics and Progress Measurement in the Statistics Directorate of the OECD.

He started his presentation describing the great success and contributes given by the Commission on Measurement of Economic Performance & Social Progress, also known as the Stiglitz-Sen-Fitoussi Commission (SSF). This Commission was convened in 2007 by President Sarkozy with the aim of exploring limits of GDP as a welfare metric and to suggest possible alternatives. The key idea behind this was that : "GDP is not a measure of well-being. Growth is a means to an end, rather than end in itself". Many of the same issues were discussed before in other initiatives but the important contribute given by this Commission was to provide a vocabulary and a syntax that allowed practitioners from very different disciplines and perspectives to communicate among them. It contributed to stress the importance of complementarity between different perspectives rather than competition and to support balanced considerations of objective and subjective

aspects, average and inequalities, well-being today and tomorrow (sustainability). More generally we can say that the great contribution was the capacity to catch a mood.

In 2013, to follow-up on the recommendations of the Commission, the High-Level Expert Group on the Measurement of Economic Performance and Social Progress (HLEG) has been established. This is an independent group, hosted by OECD, that pursues the aim of providing impetus and guidance to the various initiatives currently ongoing on measuring people's well-being and societies' progress. The High-Level Expert Group brings together experts of international standing, with relevant experience in the field of well-being measurement coming from both official statistics and academia. Among them there are persons that had been members of the Stiglitz-Sen-Fitoussi Commission and among the representatives from the Statistical Community there is Walter Radermacher, Former DG of Eurostat.

In November 2019 at 6th OECD World Forum on Statistics, Knowledge and Policy, the HLEG released two important reports: the first is a high level perspective from the chair of the Group, *the Chair's Summary* (Beyond GDP: Measuring What Counts for Economic and Social Performance) and the second is a collection of authored chapters by the members, called the *Collection of authored chapters by selected HLEG members* (For Good Measure: Advancing Research Beyond GDP).

The presentation focussed mainly on the first report but considerations can be extended also to the other report. Two important messages can be drawn from these reports. The first one is on measures: what you measure affects what you do. If you measure the wrong thing, you will do the wrong thing. If you don't measure something it becomes neglected, as if the problem did not exist. The second refers to policies: issues of measurement are not only technical, but go to the root of our democratic system; they will shape whether it can reconnect to the concerns of ordinary people.

The analysis of the HLEG reports is developed along three main strands. The first deals with better measuring the effects of the crisis. We need to pay greater attention to the permanent effects of the recession: the "missing wealth"; to the impacts of the crisis on more intangible aspects of people's life (e.g. economic insecurity, subjective well-being, trust); to balance sheet (liabilities & assets) for all sectors (private liabilities may become public when banks default). The presentation went in more detail about these aspects and he presented some slides to deepen the analysis on wealth, labour market and balances of all institutional sectors.

The second strand can be considered the main part of the report and refers to the need to deepen research and statistical efforts. To this effects, some measures should be improved, such as vertical inequalities in economic resources, horizontal inequalities in quality of life, subjective well-being and sustainability. Other measures in new fields should be developed such as economic insecurity, inequality of opportunity and trust. The presentation went in more detail about these measures both for the existing ones and for the new ones. What should be done for improving the

existing measure is one of the main part of the report. Suggestions refer to the need of defining a more comprehensive income concept (incl. benefits in kind, consumption taxes, capital gains), with metrics produced as "experimental statistics"; to systematically assess scope for underreporting and non-coverage of the rich, allowing NSOs to use (anonymised) tax records for linking to survey records; to use all data sources on wealth inequality (e.g. surveys, censuses, lists of large wealth-holders, administrative data on people's estate at death and on annual wealth taxes) and to address inconsistencies in international datasets used for research. Then, attention was paid to new measures such as economic insecurity defined as vulnerability to economic losses. It represents a growing phenomenon as many reforms have shifted risks from firms/governments towards households and there are no measure (either objective of subjective) widely used and accepted. However, some measures exist that are consistent with available theory and evidence and could be easily produced with existing data and should be used in policy to reduce economic insecurity. Then the presentation focussed on inequality of opportunity and trust.

Finally, he went to the third strand of the reports that refers to the use of well-being metrics in public policies. Within this context the central message is that these new well-being indicators should be anchored in all phases of the «policy cycle», beyond the simple diagnostic. Well-being indicators should affect all stages of a policy process that proceeds from the agenda setting to policy formulation, then to the implementation, monitoring and finally to the evaluation stage. It is a continuous process where the evaluation stage of policy 1 represents the first stage of policy 2, that is lessons learned in the past set the agenda for choices to be made in the future. To this respect he mentioned some interesting experiences in France, Italy, New Zealand, Scotland, Slovenia, Slovak Republic and UK.

To wrap up the content of the two reports, he concluded by mentioning the 12 recommendations that were grouped in fewer items. These are the broader headings: improving measures of all types of inequalities; assess sustainability through full set of balance sheets; develop new measures of people's economic insecurity; develop measures of people's own evaluations and feelings; use administrative and big data for statistical purposes; use new well-being metrics to inform all stages of public policies.

4.2. New methods for enriching official statistics on distributions and inequality - (A. Leulescu, Eurostat, Luxembourg)

Aura Leulescu from Eurostat, invited to participate in the section of the agenda on "New sources, frameworks and methods for official statistics", introduced her speech affirming that in EUROSTAT there were several initiatives conducted in the last years for experimental statistics and some of them are related to the topic of the day i.e. "Beyond GDP". There is, for instance, the example of income consumption and wealth or statistical matching methods that provide information on joint distribution, but what she would focus on that day regarded the provision of flash estimates on income poverty and inequality. With this respect she explained the reasons underneath the

starting of this project at Eurostat: there was a very specific, strong need from DG employment for more timely data on income indicators for the European semester which is the cycle of fiscal and economic coordination at EU level. In addition, it was realized after the crisis that income poverty data and traditional indicators were coming almost two years after. She added that in times of crisis, when you need to react, this is a too large delay.

At this point she described that an estimation model was put in place to provide flash estimates at 9-months, which should reduce to six in time, for the moment they will have probably already half of countries after 6 months. She added also that for two years flash estimates have been published already, which are used in monitoring tools like the Joint Employment report, the Country reports and the recommendations within the European semester.

One quick message then followed, because in her opinion the fact that there are a lot of discussions on the indicators is important, in the sense that there is the willingness to give a coherent story about the income distribution. With this regard on the right side of the graph she was presenting, she showed the income distribution for Portugal and its evollution across time. She continued describing in the graph that the orange part is the last point that they have in EU-Silc from 2016 and it shows that since then people is moving from the left side of the distribution which is in blue to the right part in orange.

The question she then put was: how can we capture this picture with indicators? Explanation was that the priority indicators received from DG employment are AROP (At-risk-of-poverty rate) and income inequality but, as already said, they have a lot of limitation and one of them is also the fact that often they are not significant from one year to another; they moved their structural indicators which move slowly.

At this point the proposal was for more reactive indicators for yearly changes which are the cut-off points of the income distribution: decile 1 (D1) , decile 3 (D3), median etc. in order to support the analysis for the main indicators. Then she gave some data examples which refer to the Portugal: the AROPE started going up from 2011 until 2013, and then it went down from 2013 and 2016. It could also be observed that it is very much related with the evolution of D1 (first decile) because it was underlined that the poorest people which were hit and it was plunge of the income of D1.

She then passed to speak about two years publications in 2017 and 2018 because there was a lot of work both from the technical side and the activities carried on with stakeholders, trying to manage the different expectations. With regard to the first group, that was mainly explorative, she mentioned above all the modelling techniques and the national flash estimates so far in possess for 4 countries. Most of the flash estimates are model-based and this represented a novelty for the social statistics. She outlined also that they have in place a quality assessment framework and criteria for publishing, agreed with the Member States, as well as several communication aspects because there was a negotiation with the Member States that at the beginning opposed the possibility to publish flash estimates because of their lack of reliability; in the end, the condition

they agreed on was that they do not have to publish the point estimates but an uncertainty interval to take into account the inherent uncertainty of this kind of modelling. As far as the second group was concerned, she added that there was a lot of work with Member States: before production, bilateral consultations were made in order to try to support with national data to extend as much as possible the estimates; there were also dedicated taskforces on flash estimates and workshops with academic community. At the end of this point she mentioned the main users among which there is DG Employment – the flash estimates were very targeted also on their needs. And worth to mention also the strong support given from the University of Essex.

In terms of methodologies, she outlined that both macro and micro models were tried. About the first, it was said that they were abandoned because time series, at least in Eurostat, were too short so the models were not robust enough. Concerning micro models, microsimulation was used which consists in a methodology that takes the last micro data available on income and updates it for the labour evolution. If we have an increase in employment, we have an improvement in the income and distribution. There are policy effects which are simulated via Euromod. In this context there is worth mentioning the strong support of the universities which develop this model and helps with analyses. The possibility to link to policy effect was also a crucial factor in choosing microsimulation for doing these flash estimates because it can be used after in the Country recommendations and it is possible also to relate these flash estimates to specific policies that were implemented by country.

Then she passed to present some results: for the flash estimates 2017 they published the results for the "median" income , where in the graph showed the grey bars indicate the significance ranges. Here it can be observed that in general in Europe the situation is improving. While referring to the results of AROP, presented in the next graph, it can be observed that most of the changes are not significant, looking at the year-over-year (YoY) change. This happens usually with EU-Silc data and there are significant decreases in Portugal, Romania and Greece. They have also estimated separate effects: this means that in the model they can estimate how much of the estimated change is due to the labour market updates introduced in the model, including the wage indexation and how much is due to simulated social benefits and taxes via Euromod. As far as the country focus is concerned, it can be observed, in the case of Greece, that the YoY changes are calculated for the 7 indicators. Looking at AROP indicator, it is decreasing and this is highly related to a big increase in D1. According to report which the University of Essex is conducting, this increase was mainly driven by the introduction of guaranteed minimum income (GMI) in 2017, which was provided to all households with incomes below a certain (low) threshold. She stressed the fact that this was a very tailored exercise on the needs of policy makers, which can relate directly to policies. Passing to analyzing some charts on flash estimates in time perspective, she brought to the attention of the audience the results for Italy: with the help of the graph she indicated the evolution of AROP across the crises. It is decreasing in 2017 but it was not significant, according to their estimation. About this issue she added that it is also interesting to see the

evolution of deciles across time. As shown in the graph the red line (D1) decreases a lot during the crisis and continues to decrease for a long time. That's why also AROP didn't recover yet.

Last point of her presentation was about showing the dedicated page present on Eurostat portal where it is possible to find many information and also the reports, an excel file with the data as well as charts with country profiles, time series. An invitation to researchers to give feedback is also present on the webpage.

5. The challenges for statistics and policies (Chair: F. Bacchini, Istat)

5.1. Round table: Suggestions for the project

Moderator B. Chaudhuri (DG RTD, EC)

Fabio Bacchini gave the floor to Mr Chaudhuri from DG Research and Innovation who, firstly thanked for the invitation to moderate the round table, being long term civil servant project officer for this project and others dealing with economics. Formerly employed at French Ministry of Research and University of Caen, he underlined that he had followed with great interest what presented in the first part of the agenda, in particular he declared to be very interested in economic, social and environmental indicators, as he himself has been developed in economics.

Before giving the floor to the invited speakers of the round table he made two comments to flag the discussion off:

1 comment) working in two groups in the European Commission of the last three years, one is the Horizon Europe group that has prepared the "Horizon Europe" programme and the other is in projects like MAKSWELL, which have the central role to construct the transition from H2020 to the new research programme Horizon Europe, he noticed that one very important element which came out during the works in the morning was the entire framework of ex-ante and ex-post impact assessment which is a kind of the guiding philosophy of the Commission. In other words: how can the money spent in financing research coordination and support action create a long-term impact of the overall framework programme. In his opinion, there is always confusion within and outside the Commission as well as the scholarly community as to whether the impact really creates out of these projects something of high level. With this respect the agreement was there's not. Each project has its own outputs as deliverables, there are results that have helped to eliminate a guide policy, it is true that there is knowledge that is produced but - and that is the message that academic world sometimes has the difficulty to absorb – the Commission is less interested in the publication aspects than they are in those concerning to be very quickly and be able to transform these results into concrete policy actions. Specifying better the concept: the speed of collecting data, the rapidity it can afford new crisis, these are the guiding things in the Commission. At this point he suggested that this is what the academic community has going to live with, i.e. to give relatively short cycles of time, some policy input and feedbacks to feed the

process and he sees that the results and outputs of this project will offer such things with clear refinement of the indicators.

2 comment) As in the discussion already pointed out, there was a lot of information – very appreciated - on inequality and poverty measurements and it has to be related to the discussion of the working day. This represents a guiding philosophy for the Commission as well as the entire framework of SDGs goals, the 17 global goals divided into further 74 indicators and so on in the clear contest of current crisis.

The second group he belonged to, the foresight group, which advises Commission on very long-term planning, is going heavily into this framework of potentially large crises which are very difficult to predict with any degree of relatively stable probability measures. These are problems that he has been discussing, sometimes not coming out into the open. This issue is on the Agenda. At this point he shared with the floor the personal feeling that the global interconnections between these are not sick in the quant, because this is not only an inequality and poverty question but also the sustainability related question is there, also linked to large geo-political, military, geo-economic conflicts that ship these other problems also, and the academics should not ignore them and tell the Commission what it wants to hear. As part of the challenge of the academic community very often in the milieu of experts, there is the tendency to do so but they should consciously fight against it. That's why some dissenting voices are encouraging the Commission to bring her on with such kind of messages. It should do it in a continuous way. He then underlined that there was a large variety of statistics analysed during the first part of the programme.

At this point he exposed a question as example:

If you take the gender question today, gender and female security across age groups, life-cycle, activities etc.. they are a major issues in the emerging and developing countries, like India and Brazil, which have helped to develop statistics in this area. There was a stock of international comparison. He is very interested in this issue but he sees that in Europe the discussion is not focussed. The variety of experiences across Europe in particular the EU 30 Countries that came to take into account the varieties and differences and this eliminate the process in the context of a national comparison.

All written above represents the issues he wanted to flag off. He then gave the floor to the first discussant, Prof. Filomena Maggino.

Tweet launched while the round table was going on which has obtained 1200 visualizations.

F. Maggino (University La Sapienza, Rome / Italian Presidency of the Council of Ministers, Italy)

She started her intervention joining the words of congratulations about MAKSWELL project but she then added that in that context her role was especially to point out all those aspects which require some kind of adjustments. In this perspective, the suggestion from her side is to focus on the role of different data sources and in particular on big data because, in her opinion, it is very important to understand the difference between what we want and what kind of data we really have. Nowadays the tendency is to follow more the second instead of the first. About this point it's better to give more clarifications, although already reflected on other times.

- The idea to use big data in order to understand better individuals or living conditions should be directed in a different way. At this point she made an example based on her own experience working on big data such as supermarket receipts, because in this case they can be considered social indicators, in a certain way. So in this perspective she considers very useful to exchange these experiences.

- With regard to social indicators hinted at above, she suggests to broad this concept. As far as she has understood, the focus on poverty is very important but there are many other issues of living

conditions which are objective as well as subjective, that can give some help and support, in order to understand where we are going, also in the sustainability perspective. For this reason social indicators are something broader than poverty.

- Another suggestion coming from her side is to better clarify the difference between data, statistics and indicators, as they have not the same meaning.

Actually, Filomena Maggino sustained that the problem was and is that we are not pursuing well-being and this is unsustainable. It was then declared that the fairness is something included in the well-being perspective and that unfair pursuing well-being is unsustainable. Sustainability is not a different conceptual framework but it is something which is included in the idea of well-being. For this reason the trend is to discuss on well-being indicators on one side and SDGs indicators on the other. In her opinion, if there would be a big best project in the whole world, then red lights were somewhere and they are SDGs indicators. This means that they do not represent a system of indicators but they can be included in a system of indicators related to well-being. Discussion on this point is open.

She then underlined that during the presentations given what was missing according to her was one of the most important keywords i.e. complexity. With this word the concept of non-linearity was involved as well as the relationship between indicators. Variables are tricky, in fact sometimes they are strongly related but other times are not.

At last she shared with the floor what she is going to operate in Italy within the Italian Presidency, as working in support of the Italian Prime Minister. The plan is to build up a structure but she didn't want to reveal more about it, as not yet official. However, she specified that in this structure the intention is to manage both well-being and sustainability, SDGs on 2030 Agenda. She then added that in this perspective the project could be very helpful, in the sense that, among other intentions, there is also the one of having in the abovementioned structure a strict relation with the research world. Thus, she launched the invitation and offered to keep in contact.

G. Umbach (Globastat, EUI)

Gaby Umbach, first of all, joined the congratulations for the project. She then started saying that it's time and in some ways overdue to work on stocktaking, because in the past two decades and even more, taking the human development index into account, she said that it has been working on mushrooming indicators everywhere and the conceptual coherence is something that for global progress in the paradigm and the implementation of the paradigm is missing. After such consideration, she turned back to her presence in the round table, because she confessed that she was very enthusiastic of the project and had prepared a sort of "unicorn" wish list for it. She then underlined that some of the things she was going to say are likely to be more fit with a MAKSWELL 2 project than into the present one but in her opinion there are some elements that are meaningful for the development of the instrument, that can be taken into account.

She passed to list what MAKSWELL does: 1) comparative analyses of well-being and human developing indicators, both conceptual and methodological, that is the paradigm - Member States and big institutions work on that; 2) it systemises i.e. it translates, meaning context and localization of indicators and 3) it works on developing indicators. In these areas it faces different challenges, data gaps in areas that have not been discussed but in the overall measurement of well-being are necessary to be tackled: how do we measure leisure time, volunteering, trust, personal safety, social connections that all head up to well-being. How can we bring these in terms of statistics? How do we design surveys, because these need to be based on survey data? The data gaps that are faced by the project are not only the local level but they are also in terms of quality if we have a list of well-being. According to her about time series there was quite a lot talk. She then stressed on the fact that what comes in when the issue of data gaps is faced is also the difference between statistics data and evidence; within the framework of evidence based policy making we talked a lot about alternative forms of evidence instead of data and here the project comes into the discussion with good enough data.

She brought to the attention of the floor an example, when we enter in biodiversity, pieces spotting have become an important knowledge and evidence source while we would say that it is not statistics, no data. How can we factor that in to make our analyses of well-being better and more meaningful, more targeted? She suggested that on the new evidence sources the project should reflect more. Although with nowcasting, multi sources this is already done, it should be improved adding, as she hinted, also policy monitoring and policy simulation which create knowledge, maybe less in Europe that in other parts of the world, but she invited to take that into account.

She then added other suggestions: new capabilities in between the data qualities and the methods are also important for the project, maybe more in its second phase; the ethical assessment of different data sources; in how far we do need a certain waiting of data sources in our analyses can we attribute a certain credibility loss but she invited to use the sources because it is meaningful as a self-assessment for mental health, for example. There are ethical but also legal aspects with GDPR. She called back at this point the regional statistics previously not able to be shared. Technology comes in in this topic, too. What is overall related to that is the development of new evidence communities that interfere with what we see as the classical political cycle. She stated that the classical policy cycle is nothing that we cannot take for granted anymore in policy development because at a certain point we injected information to and from agenda setting and then went on in the policy development. The reason why the policy cycle cannot be taken for granted anymore derives from the fact that policymakers read experts and need to read experts and evidence providers, to form the entire process.

Moreover she expressed the opinion that it would be interesting if we can come to something that we would call a new evidence community, including practitioners' panels around the development of well-being and sustainable development indicators and their interlinkage. In the project a

mapping of networks to see in the countries who are the statistics providers is already foreseen. At this stage she thought to attribute to the NSIs a sort of knowledge provision because they are in the position to provide the expertise. Statisticians are the ones who have the overview on the data that is out there and the data gaps. The practitioners' panels around the development of the meaningful indicators that discuss whether at local level indicators are meaningful or not, helping for policy planning in her opinion could be a good test face for WP 5, where there are the pilots in the two countries. The invitation launched is to go there and test, like statistic jurists, the practitioner panels, to discuss your ideas and this could be a good feedback loop for the project to create again trust in statistics. This would be something interesting.

In terms of the indicators she had two remarks to do and in addition to this, something in general that the project's researchers might be willing to take into account:

- As far as input/output were concerned, she was not necessarily sure that this is something needed to focus on; what is missing is outcomes indicators. She valued important that we have a certain amount of money going into educational projects with a certain amount of people participating but the true thing that we need to measure is: are these people working in five years, are they working in twelve years, what is the quality of the work they have. For this reason she would advocate for a certain shift to outcome indicators to really assess the sustainability of the measures programmed in the present and the sustainability of the well-being created at a certain point in life.

At this point the link to subjective data entered the topic. She expressed her thought about the fact that one of the main problems we currently face is that subjective data is very much related to our commercial companies that sell them for a lot of money or subjective data in surveys that have some issues with time series.

She then suggested that it might be interesting for the project to develop a pilot for a local community survey that can be performed over a short period of time, in order to fill this subjective data gap in a way that is more sustainable.

A short analysis per each Work Package followed:

Concerning WP1, she thought private and public initiatives would be important to increase the overall pull of indicators. In 2014 there has been a stocktaking on well-being initiatives and organisations that work on well-being and develop their own lots of indicators, measurements, ideas. To advance and thinking at the pilots in WP5, she suggested that it could be useful also a stocktaking of the private initiatives because the private sector i.e. NGOs, civil societies have advanced here a lot of contributions on sustainable development and well-being.

Alternative data have been already mentioned; other two points considered most important in her opinion were: good enough data element and the outcomes indicators; it was judged very good the fact that within the projects' activities the reflection on quality of data had been already done.

As far as WP3 was concerned, she outlined that it has worked a lot on the localization of data. She added only the fact that context is very important and explained the concept in the following way: if you are going into the analysis of policy areas then WP2 could be integrated when a data is a meaningful one for well-being, as poverty, on which the WP is focused, might not have an impact on health well-being, so the suggestion is to analyze and consider its meaningfulness.

Related to the self-assessment she advised the floor that she was opening up a "Pandora's box" which was not programmed in the project: her view is that we need to be aware of cognitive bias about self-assessment and this has to be designed into survey designs.

Maybe all the statistics data we have point at a favorable situation in the country, but people are unhappy and well-being is still low, so how can we explain that? She thinks that behavior politics and cognitive elements need to come in for us to advance in the results of the analysis and to bring statistics and survey data in a meaningful way together for politics.

On other points she assured that she will going to post the Consortium via the project's website forum.

The final observation from her side regarded the fact that we are at a point in well-being and sustainable development measurement where we need to overcame the separation of well-being and sustainability in a conceptual way, meaning that: when we measure current human well-being, we cannot neglect long term non-human sustainability because that is the base for future generations' well-being. In our human well-being measurement with indicators in the measurements' exercises we need to balance that with indicators of environmental conditions and environmental change, so that we really have a true perspective on intergenerational responsibility and equity, while we measure current well-being. This is the biggest task for the project, to reflect on these things: how can we well measure which is important for policy making, the current well-being of current generations, and we already pay tribute intra generational well-being across the globe. Her last invitation was about the need to factor the intergenerational well-being perspective and responsibility in.

M. Karlberg (Eurostat, Luxembourg)

Martin Karlberg recognised that there were a lot of valuable outcomes of this project and he declared to like the innovative inclusion of fuzzy aspects to what is otherwise described as phenomena, as proposed by A. Lemmi in his presentation.

According to his view, it is also important to have these scanner data, for instance, because that data can help to know why people are unhappy. All the national indicators point in the right direction. If you take original conditions into account, you can have large sectors of the population that aren't happy and this can be due to objective reasons. It is not always depending from subjective reasons, experiencing poverty or less well-being. It might be that the original situation is such that it actually should be unhappy.

He stressed also his like for discontinuity analysis because it brings into embedded experiments.

Proceeding to focus less to the substance and more to the general framework set up, he said that it is important to start from the state of the art. At this point he put a question:

In the project's Consortium there are partners like Istat and CBS Statistics Netherlands who are really at the cutting edge with the use of scanner data, so he presumed that they are in the starting out, using both the methods and this rich treasure of data which are there, moving on in their endeavours.

Another observation made by him, even more important, already alluded to also by the chair of the round table, Mr B. Chaudhuri, regards the uptake. This has for the official statistics community a great relevance, as whatever results come out in the end lead to improve the official statistics. In this context the situation is complicated by the fact that indicators that are being produced by research projects cannot systematically be absorbed directly by policy makers in a systematic way. So this uptake has to go via official statistics in order to have a last impact. With this respect he proposed a strategy that could be to have experimental statistics: in his opinion, this could be a very good dissemination vector for experimental results, very well before these eventually becoming official statistics. The decision routes might be much shorter and it might be much easier to have experimental statistics go on stream. There again, there is Istat and CBS Statistics Netherlands who have much up-and-round experimental statistics hubs, which serve for natural dissemination vectors for some of the key results of MAKSWELL.

He then reflected on the issue to facilitate uptake. He suggested to consider interoperability for the rich database that is going to be are constructing in deliverable 1.2. In his opinion, it consists essentially of very rich metadata which, if designed correctly and integrated correctly, can allow a sort of transversal dashboard of indicators which can be conducted in multiple countries.

One recommendation from his side is to reach out the open data community. There is, for instance, a key workshop in Sofia in May, where perhaps this could be an element of the programme i.e. to try and really use what, through the project's activities, has been gathered so painstakingly, to use this as rich metadata to create something interoperable. This also goes for the software developed in the project. It is important to share it in an efficient way, as already said in Rome last January during the kick-off meeting. He stressed the importance to inject the software into easy-to-use easily sharable repositories like *GitHub*.

The general question at this this point is, according to his view, what the plan is here; the way in which the project will really be engaged with statistical institutes, apart those that already are in the Consortium. In his final considerations he hinted at another question that is about the way to reach out within one's institutes to really sell in the solution offered, because just doing a report and then read it during an event is not the optimal solution, in his thought.

5.2. The importance of well-being for policies (L. Fioramonti, Deputy Minister for University and Research, Italy)

At the start of his speech Prof. Lorenzo Fioramonti, currently Deputy Minister for Research, thanked the organizers of the event, adding that for him it was a pleasure to be in Brussels and even more to have a talk about something about which he has a direct knowledge. In fact, he said that before becoming a politician, he was an academic, and he has been involved for years in research on well-being indicators and their dimensions and above all on the political use of indicators.

He stated that this project has a particular ambition which in his view is what makes it stand out from other initiatives before. It goes behind the measurement and comparison of indicators and addresses the problem of "how do we make measurement impact policy making?" In this respect he added that we are in the generation of evidence based policy. For this reason it is extremely important the issue of "how do we make sure that the evidence is not only accurate but effectively get in the policy cycle". To this effect, in order to influence the policy cycle we should take into consideration to what extent is our work and the work we are doing relevant to public debate and what's the level of literacy of those operating within the policy circles. In his opinion, if that is not taken into consideration, the ability to influence the policy cycle may be hampered.

Then he went on mentioning the famous sentence by Albert Einstein : "Not everything that counts can be counted" and now that about a century has passed that sentence should be paraphrased in: "Not everything that counts has been counted". Maybe now we can count but it's not yet been counted. And certainly not everything that has been counted really counts.

According to his thought, connecting the all debate of well-being more strictly, as done in the project, with the Beyond GDP debate is fundamental. He agrees on the fact that well-being is wider, much broader as a concept then what is often discussed. It goes well beyond income, it goes well beyond poverty and it has to do with the environment. He affirmed that looking transversally at all researches from medical research to biological research, it can emerge that human well-being is a by-product of things that can be mostly grouped in two families: social connections and the natural environment. Within the two things we don't seem to be able to thrive. Of course he insisted on the fact that there might be a concept of well-being which is very narrow, but looking at it from a more all-encompassing point of view, then it can be realized that the true well-being is fundamentally determined by these two things.

Throwing back the speech to what said before, i.e. "we can count more things that haven't been counted in the past". With this respect he really appreciates the effort made by the project to explore the potential of new and nonconventional data sources thanks to use of new technologies. More and more literature is available on online searches, for instance, in African countries, where he lived for 17 years, it was found that Google trend was extremely good at predicting heartbreaks of diseases. In his opinion satellite images are of extreme importance too. He mentioned a very pioneering project conducted by the Australian National Statistical Office which is about the

ecosystem services which connects tourists' pictures with satellite images to see the degradation of ecosystems almost in real time. About remote sensing data he would not say anything, as it was talked a lot on it.

At this point he declared that we are on the verge of a potential revolution. In his thought we may be able to preserve the complexity of measuring well-being with the ability of conveying a message that is relatively easy to understand. This was never been the case before. there was a trade-off between complexity and communicability: make it simple and/or make it understandable. As shown in the course of the event, using new technologies in statistical methodology can be relevant to different territories and to different distributions getting measures that can be understood by the men on the street and closer to the communities involved. This is something that's very new in the old statistical experience. Statistics has always been defined by few and mostly imposed on the rest.

At the same time, in his role of politician, he could assert that no matter how sophisticated and how detailed you are but you are still dealing with a system that is hard to change. So, the invitation to the floor from his side was not to think that we need to measure everything but to be able to say something. He stated that it is preferable to be approximately right then accurately wrong. Not all the dimensions of well-being can be measured in detail, but in his opinion no matter what you measure of these dimensions, well-being comes as a package, the final picture is more or less the same. Policy making need tools that are easy to implement and need them soon. All the people involved in the project and attending this event well know that tools they are using weren't perfect at the beginning. Over the time they marginally improved and stared to be used not when they were perfect but only when the politics decided that was time to use them.

He, then, remarked that time is of the essence and we don't necessarily have the time to be able to have the perfect tool before we start using it. Moreover, while today we have the need to preserve complexity and be able to have a political system that can manage complexity, we are still operating with different social and political categories. This means that we have to change the system, which is relatively simple to understand, with something that is relatively complicated you may be disadvantaged. However, he stressed again the fact that we don't need to measure everything to be able to operate. He firmly thought that there can exists a tool which is able to give one single picture of the state of well-being in an economy and that can be unpacked at the same time. These two things shouldn't be seen as mutually exclusive. With this respect he brought as example the GDP, affirming that it can be unpacked if you want to look at different types of investment or consumption, but it has also the power to tell us if you are going up and down basically and this is what journalists, the media and the politicians need to know.

When looking at different dimensions of a phenomenon, it is important to see how they are correlated and clustered together and to not assume that all the dimensions are necessarily moving in the same direction. In this respect, he mentioned the 17 SDGs that are supposed to

move in the same direction but it is scientifically proved that the SDG number 8 does not go in the same direction of the other sixteen.

Thus, he explained that we need to be aware that embracing well-being indicators will mean taking political choices that are not necessarily welcomed by a lot of people. In terms of political dialogue, it deals with a battle of ideas, but when statistics embraces that, it becomes a fact and before they will allow us to be able to do it, it will be an important political battle. These indicators, macro-economic indicators above all, are not just important to test and monitor but, as he highlighted in his latest book about indicators, they create a system of political compliance. Moreover, they create a logic of appropriateness for as long as policymakers are operating. With this regard he expressed his happiness to have at that table the OECD with its study and in his opinion this has to be the European shift, in the sense that a logic of appropriateness has been created that believes that certain models of growth and productivity are the only ones that are acceptable. Just like the Stiglitz report says that there are new ways to measure growth taking into account social well-being. There are different means to enhance growth and we simply are discovering them, by studying and measuring other things we have not measured earlier.

As a last point, and here more speaking as politician, he compared to an elephant in the room what happens to the well-being statistical revolution, when it comes instability in growth impact and perhaps it's time for Europe to embrace what is called sustainability and well-being impact. It is the time to simply recognize the need to align the vision of development to the economic policies, otherwise there will be always a trade-off. And he is sure that as long as there is a trade-off, the economic governance will prevail over the statistical and/or social requirements.

The suggestion given is that if in the project work there is the interest in understanding how to affect policy you need to be more explicit about what are the main restrictions that have impaired the process of enlarging the spectrum of indicators over the past fifty years. The Stiglitz commission has put the debate back formerly on the table, which is a great thing, but it predates 2009. He then advised not to make the same mistake of the past, simply seeming that having new indicators or a certain indicator will do the trick. It has to be accompanied by a much wider effort to understand how to make it visible, how to impact the media and communication, how to build a debate around it.

He closed his speech thanking for the invitation to participate in the event and expressing his excitement for the fact the European Commission continues in supporting research projects that are not only about research but also research and policy and actions. In his thought there is more and more a need for this kind of research in the continent. He finally gave a sort of encouragement to the project to be perhaps bolder on the policy part of it, that is what is needed to have a policy shift because that, in his opinion, would be the most important added value of this project.

6. Closing and farewell

Fabio Bacchini, in his role of Scientific Coordinator of the project, took the conclusion of the very fruitful event, showing the graph already presented by the speaker Marco Mira d'Ercole, because it is very relevant for what there's in mind both in the project and in the work to carry on.

The challenge is to relate well-being and SDGs indicators – not statistics – to the policy cycle. This is the thing necessary to do and he expressed there his hope that we are able to provide some new issue on this way. Taking into account that Italy is a good example for that because, as already mentioned, it is in this policy cycle, where some well-being indicators are contained in the Balance Law. For this reason it is quite important to see what is going on this side.

Recalling what Prof. Fioramonti had said at the end of his speech, he stressed the fact to take in mind at least another point i.e.: what we would like to provide is some useful tools or information or indicators that try to bridge the gap that separates policymakers and ordinary people. This is, in his opinion, quite a significant issue and in his hope the project can contribute to that with something useful.

The word that in his opinion is very important to stress, as drawn from Stiglitz and other reports, is cooperation. He pointed out that it is quite relevant to cooperate both within the project and inside the institutions to introduce some new results on well-being and SDGs.

He then very briefly turned to say something about what emerged from Prof. Fioramonti's speech and the round table: one of the main topics to dwell on with indicators is complexity, but according to NTTS, the lesson learned is that there is also uncertainty, which represents another part of the story. Uncertainty will be related both to the data as well as to the models. For this reason when trying to do new estimations, it has to be taken into account that this estimation will be related both to complexity as well as uncertainty.

Another point noted from Gaby Umbach's intervention was the feedback loop and the idea to try to make a sort of pilot study on a local community panel. This suggestion was considered very good and he assured that there will be the try to follow this idea because he explained that in Italy there have been already first contacts with regions, in order to try to make some example for the Work Package 5 that should be related to local community.

He also thanked for the suggestion about extending data and models in a way to use the experiences coming from the private sector, because till now the work was based only on the information from statistical side.

From the observations made by M. Karlberg, all considered important, he took the one that in his opinion was the most relevant i.e.: if we try to introduce new indicators, new frameworks, we need new measures for quality. At this point he recalled a project done with Eurostat devoted to the evolution of the quality indicators, concerning the users' point of view. So this means that with MAKSWELL project we are trying to move on also for the presentations of the indicators.

Finally he expressed full accordance with the last words of Prof. Fioramonti, at the end of the story we are not searching for the best tool so there is the need to move on and to talk to provide some experience, some data that try to switch the debate. According to him, this is the main point, in the sense that with the project there is not the certainty to arrive to some well-being pack in a year or two but it is meaningful that there was the attempt to switch the attention and to provide some experience and new data on well-being and SDGs.

He also expressed the hope that European Commission will be sensible to these topics in a way that it should be feasible to arrive to a sort of MAKSWELL 2.

Last but not least, thanks were made to all participants, to all the speakers, the rapporteurs of the round table, Prof. Fioramonti and the technicians which made feasible the event, included Dario Buono and all NTTS team. A special thank was also directed to the staff in Istat involved in the MAKSWELL project management: Maria Grazia Calza, M. Francesca D'Ambrogio and Tamara Zangla.

Annex 1

Presentations given in the 2° Workshop of MAKSWELL

The full presentations are available at www.makswell.eu

MAKSWELL project State-of-art

Introduction to the MAKSWELL project

- Marina Gandolfo, Istat

Frameworks on well-being and implementation of the Sustainable Development Goals at national and international level for policy making – WP1

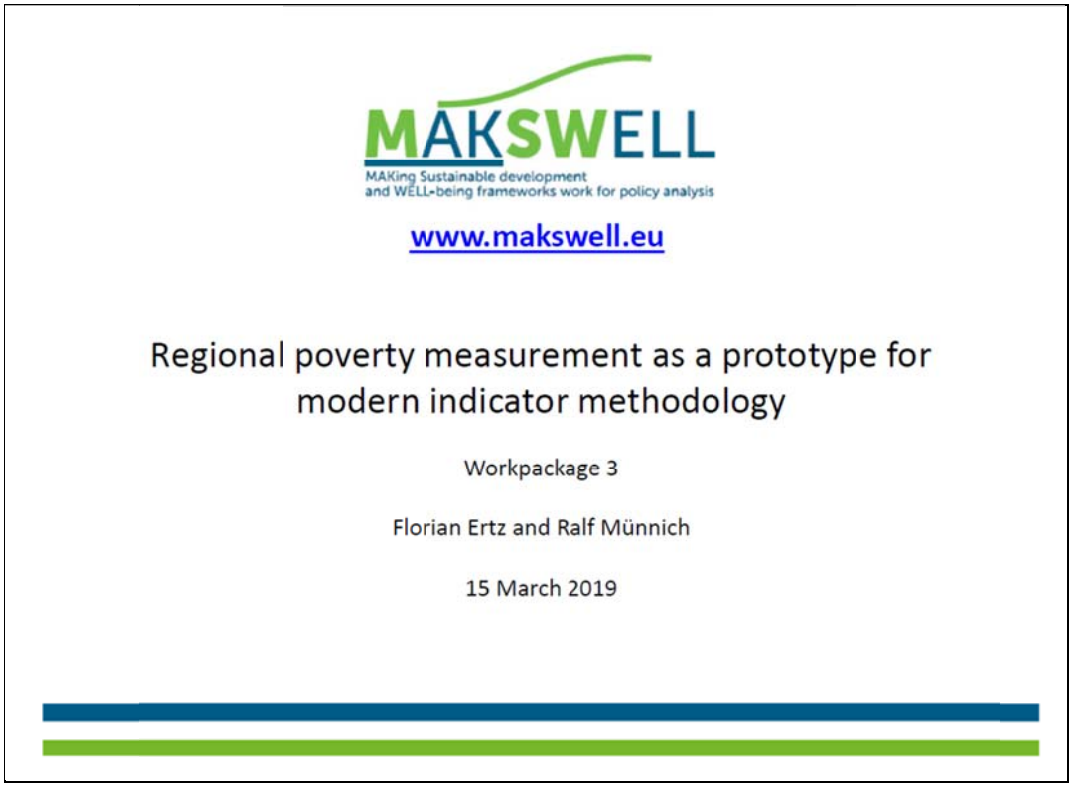
- Alessandra Tinto, Istat

Non-traditional data sources for measuring sustainable development goal indicators – WP2

- Jan van den Brakel, CBS

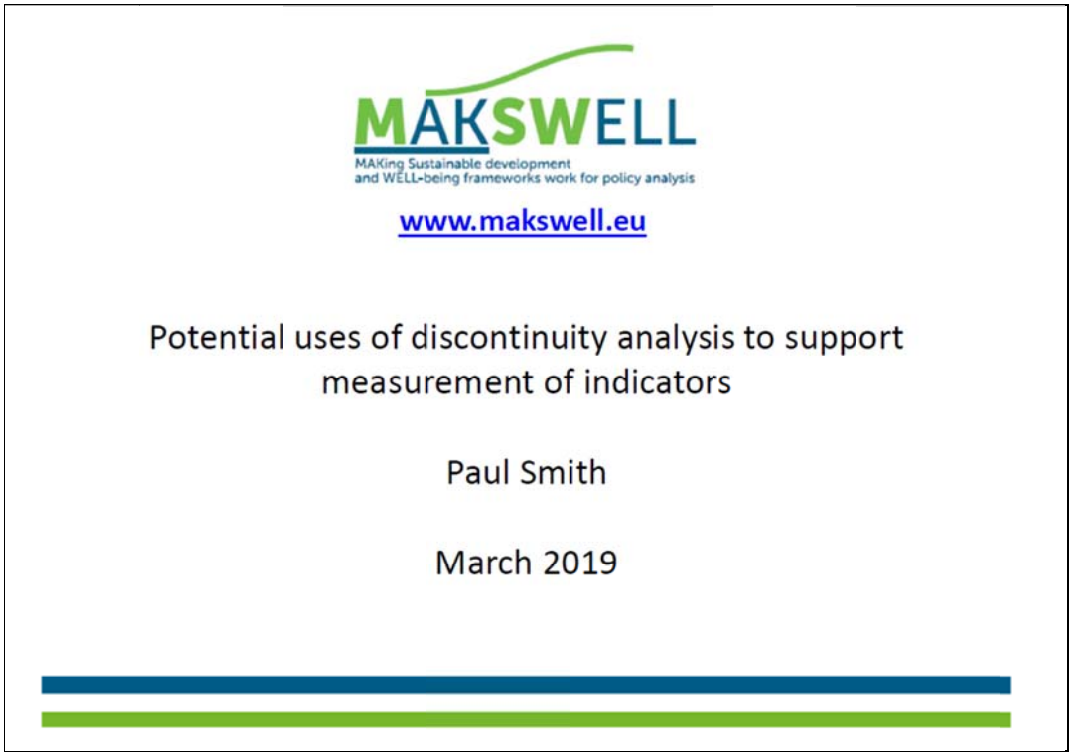
Regional poverty measurements – WP3

- Florian Ertz, University of Trier



Potential uses of discontinuity analysis to support measurement of indicators – WP4

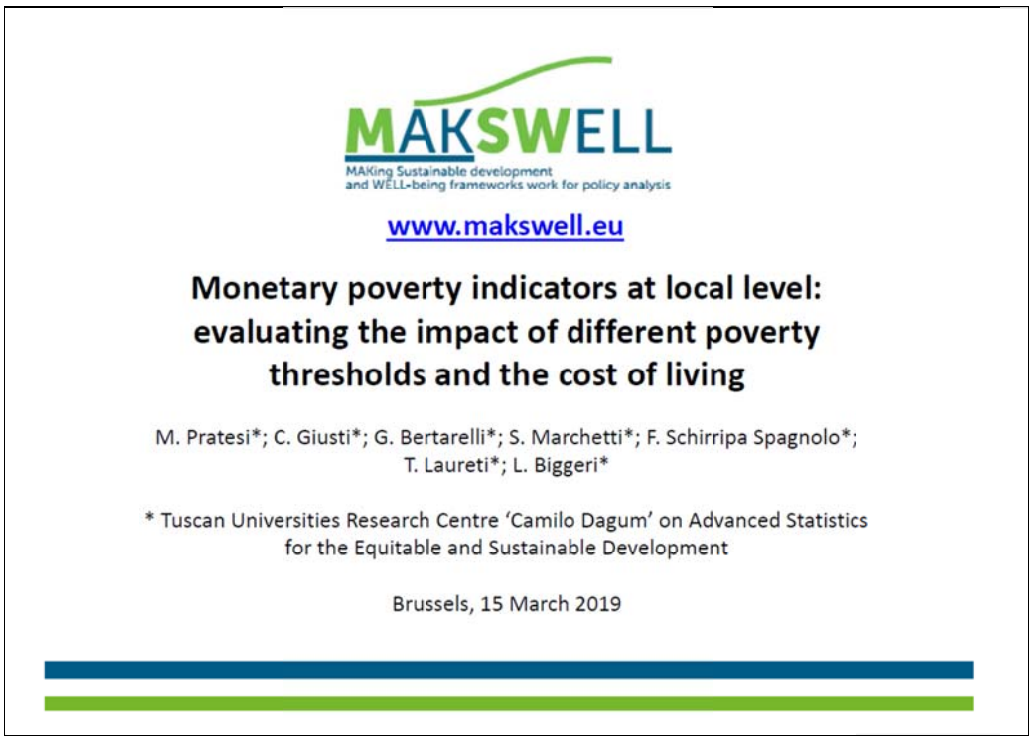
- Paul Smith, University of Southampton



National experiences

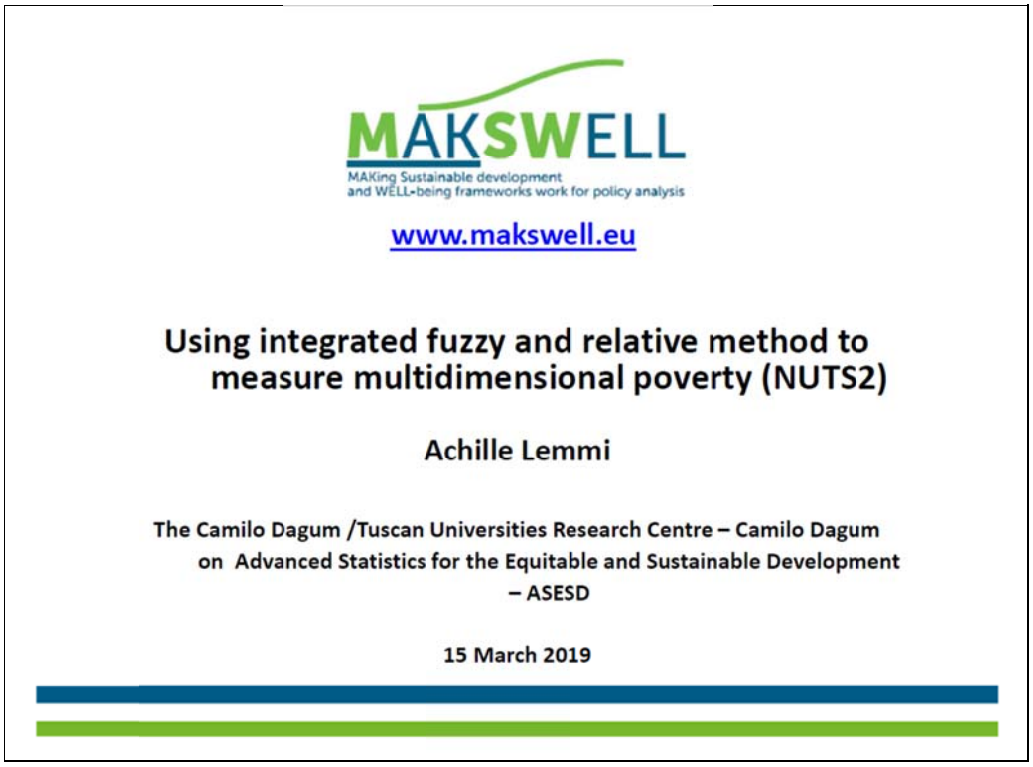
Monetary poverty indicators at local level: evaluating the impact of different poverty thresholds and the cost of living

- Monica Pratesi, University of Pisa



Using Integrated Fuzzy and Relative to measure multidimensional poverty (NUTS2)

- Achille Lemmi, University of Siena



New sources, frameworks and methods for official statistics

Ten years after: from SSF to the HLEG report

- Marco Mira d'Ercole, OECD

New methods for enriching official statistics on distributions and inequality

- Aura Leulescu, EUROSTAT