European Statistical Advisory Committee

Report on the Workshop

Indicators: user requirements, methodological issues and communication challenges

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Statistics Netherlands (CBS)
Tinbergenzaal
Henri Faasdreef 312
2490 HA Den Haag

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Summary of ESAC workshop

'Indicators: user requirements, methodological issues and communication challenges'

Plenary 1 – Setting the scene – working on/with indicators

[Chair: Ineke Stoop;
Presentations by: Markku Lehtonen, Jeroen Boelhouwer]

The **first plenary session** of the Workshop was designed to guide the audience through general and conceptual aspects of establishing, communicating and using indicators, and related processes. What are good indicators, how can they contribute to decision making, how can indicator reports take different levels of certainty into account? The speakers looked at these and other questions from the perspective of different types of users, including academics, citizens and social partners.

The discussion addressed issues such as: definitions of indicators and their functions (evaluate, control, budget, motivate, promote, celebrate, learn, improve); features that indicators carry (timeliness, fit for purpose, comparable over time and space…); different types (descriptive, analytical; prognostic, programming, planning, social normatives, control, impact, effectiveness) and roles of indicators in the policy cycle (awareness raising, problem definition, identification of options, policy selection, implementation, evaluation).

Indicators are not neutral, they carry visions and values embedded in prevailing ideas/ideologies. In this context, the audience discussed how proactive statistical offices should be in the development of indicator systems: should they follow policy makers as mere "neutral technicians" or bring in their expertise from the start? They also debated the balance between comprehensiveness versus effectiveness when users want both, since a comprehensive, detailed indicator framework may be difficult to communicate and convey unclear or conflicting messages, as well as how far statisticians can go in "interpreting" results from indicators.

Actual use of indicators

- Indicators are not only used as a basis for decision-making (instrumental), but also to legitimise processes or decisions already taken, to persuade, criticise, defend and conceptualise an issue in a certain way (political), to promote a shared understanding of a topic (conceptual or enlightening) and for networking.
- Once the indicators leave the statistical office, statisticians lose control over them. There is a possibility of misinterpretation or misuse, or even "manipulation".
- How closely have NSIs to follow the misuse/misinterpretation/manipulation of indicators and when should they react?

"Users" of indicators

– Discussion of how to frame "users": Users, stakeholders, co-producers.
– The distinction between users and producers is questionable. We could think of conceptualising them together as communities of like-minded experts and policy-makers, advocacy coalitions around indicators and perceive indicator system development as co-production of various stakeholders.
– Statistical literacy: participants warned against falling into the "knowledge-deficit trap", highlighting that there are different types of expertise:
  - ubiquitous (mastering every-day life),
  - interactional (mastering the language of a specialist domain) and
  - contributory (doing an activity with competence),

and all three are useful in the handling of indicators.

– Need to manage expectations, as too high expectations can lead to great disappointment.

Possible support from social science for indicator production

– Analyses of use of indicators beyond the "intended use", highlight unintended uses and unanticipated impacts of indicators.
– Assist producers to make more effective and usable indicators.

Plenary 2 – High quality evidence for policy making

[Chair: Mariana Kotzeva;
Presentations by: Walter Radermacher, Seraina Pedrini]

In the **second plenary session**, examples were given of indicator sets established at different levels (EU and at national level) and for different purposes. Special attention was given to quality assurance throughout the production/use cycle. This session also set the scene for the discussions in the breakout sessions, which followed it.

Indicators sets at the EU level

Main questions for the discussion:

- Potential GDP is not included in statistical indicators sets at EU level despite the fact that some methodological work is carried out within Commission policy DGs. Are there any ideas on how to incorporate it into statistical indicators sets?
- What is the Eurostat approach to indicators on Sustainable Developments Goals? How is the prosumer concept[1] reflected in the Eurostat approach?
- There are different sets of indicators defined for various purposes (e.g. EUROPE 2020, Sustainable Developments Goals, Quality of life). How to find consistency between them?
- Moreover, proposed sets of indicators include some indicators whose marginal information value is rather low. How to avoid such drawbacks of indicators selected?

Development, use and communication of indicators at national level

Main questions for the discussion:

- How was it possible to get the structured approach to involve stakeholders into the process of setting Sustainable Development Indicators and Legislature Indicators in a national context? Which were the main obstacles to implement it?
- Were citizens involved into that process, especially as regards indicators used in legislation?
- Are the acceptance and the legitimacy of indicators increased as a result of the approach used to set them?
- Did politicians accept this approach? Did they use the information gained this way?

[1] Blend of producer and consumer, coined by futurologist Alvin Toffler in his book The Third Wave (1980). Concept based on suggestion by Marshall McLuhan and Barrington Nevitt in their 1972 book Take Today that consumers would take on producer roles in mass customization.

Breakout A – Europe 2020 & **Key employment and social indicators scoreboard**
[Chair: Thomas Wobben;
Introduction by: Marleen De Smedt]

Context and objectives

This session was dedicated to the social and employment indicators used in the monitoring of EU-level policies in the social field, and in particular in the European Semester. Eurostat provided context for the discussion by presenting the content and a process of production of the indicators, as well as how they have been communicated and used.
The presentations and discussion that followed aimed at a critical evaluation of the current use and impact of the indicators. This served as a basis for formulation of what lessons can be learned from the experiences so far, what are the challenges ahead and recommendations for the direction for future work on the indicators.

Content

The following indicators were discussed:
- Score-board indicators for measuring Europe 2020 targets
- Key employment and social indicators scoreboard
- EMCO job quality indicators

Users, communication and dissemination

- Europe 2020 indicators involved public consultation, as well as consultation with social partners.
  A discussion followed on which other users could be usefully involved in the process. Who should be involved and how? What are the needs of different users?
- Composite indicators vs dashboards / scoreboards:
  At a policy formulation level and for monitoring and assessment, composite indicators have thus far proven to be a much more effective and powerful tool. The example of a simple and press efficient Scoreboard of key employment and social indicators was contrasted with a complex, multidimensional and data demanding EMCO job quality index. The former is included in the annual policy monitoring at the EU level, while the latter is not, even though Employment Guidelines include also job quality and other social policy recommendations. The outcome is a narrow focus in the EU policy only on quantitative aspects of employment (employment and unemployment rates), without similar attention to the quality of jobs and working conditions.
- Level of disaggregation of indicators:
  The issue of a lack of territorial aspect of indicators was raised. Benchmarks and targets are formulated for the EU as a whole. This shifts the focus away from issues of convergence and cohesion across regions and countries.

Challenges for the measurement of social and employment trends and targets

- The interpretation of social and employment indicators is a challenge.
- Social indicators are subject to normative interpretation: if they change in the 'right' direction then things improve and people are better off. Indicators should be constructed in a way that clearly shows the direction for change. Currently this poses a challenge as conflicting perspectives of macroeconomic and social surveillance offer contrasting interpretations of labour market and social developments – examples of wage developments, employment protection, or working time flexibility were given.
- The selection of measures is a challenge: should we use averages or dispersion and at what level of aggregation?

Recommendations

- Dissemination and communication of indicators requires explanation and interpretation to indicate which direction of change means improvement, and from whose perspective and for whom this is an improvement (re: conflicting perspectives of economists and social scientists).
- Indicators should be constructed in a way that clearly shows the direction for change: which way to achieve social progress? Take a normative stance.
- Add focus on distances in performance across different regions and groups of workers, rather than only on levels of performance. We should use both --measures of averages and of dispersion.
- Closing gaps is not always a progress; we should be able to measure and indicate where gaps close by levelling up.
- Add a territorial aspect; territorial breakdown and analysis of Country Specific Recommendations is needed.
- There is a need for a joint agreement on where we want to go and what to achieve for the revised Europe 2020. Only then we can discuss the measurement and indicators that would be fit for purpose.
- The breakout session on Europe 2020 indicators and the Key employment and social indicators Scoreboard confirmed a number of critical remarks of the Committee of the Regions (CoR) with regard to setting the Europe 2020 targets (only at national level without involvement of Labour Relations Agencies (LRAs)) and the reflection process on the review of Europe 2020.
- The European Political Strategy Centre (EPSC) presented an interesting analysis on the lessons learned from Europe 2020 strategy and the JRC welcomed the CoR initiative to engage LRA in the debate on the future indicators and benchmarks.
- Participants also mentioned that a post-Europe 2020 strategy could only be established based on a common vision for Europe's future. For the moment, such a shared view is missing because EU Member States have chosen different lines to take towards a better future. Some societies aim at reducing inequalities; others implement austerity measures in the context of structural reforms accepting growing inequalities for the short and mid-term.

In order to facilitate a credible and widely accepted post-Europe 2020 strategy, participants agreed to draft a short paper on key principles to be taken into account in the Europe 2020 review process from the viewpoint of ESAC.

Breakout B – Macro-economic indicators

[Chair: Tasos Christofides;
Introduction by: John Verrinder]

Macroeconomic indicators are widely used for both policy purposes and for communicating key trends in the economy. The main macroeconomic indicators discussed were:

- National Accounts (ESA 2010)
- Balance of Payments (BPM6)
- Government Finance Statistics (ESA + MGDD)
- Prices (Consumer, producer; PPPs)
- Business and Labour indicators (incl. (Un)Employment)Conceptual context has to be taken into account when drawing conclusions

Different kinds of users (and their needs)

- Policymaking: Mixture of timely indicator and (less timely) structural data
- Academic: More detailed (structural) datasets
- Journalist: Key indicators/messages
- General public [if not through press]: Variety of demands, from simple to complex

Dashboards and scoreboards are used to ease the access to statistical information.

Main issues raised

- Diversity of indicator users (and their sophistication): To what extent can we meet all user needs?
- Use of dashboards and scoreboards: Where are they best deployed?
- Cross-country (comparable) data: How far can we go in maintaining quality/comparability?
- Use of composite indicators in the economic area: How far to complement traditional "official statistics"?

Issues raised during the discussion

- Ways of accessing data (diversification of user access).
- It will be useful to show not only data but error bars too.
- The statisticians should change their classical approach (GDP, CPI etc.) in order to meet the evolving needs of society. Otherwise, they will be marginalised.
- There are multiple ways of presentation to be used (even very long time series)
- Scoreboards should provide additional information via zoom tools.
- Statistical literacy is at very different levels and is very hard (almost impossible) to satisfy all needs.
- Regarding communication, there should be different approaches for different user categories.

– Example of good practice: competitions on estimating indicator evolution (especially for young population: pupils, students etc.).
– The paradigm has changed from producing data to how to deliver data to a broader audience.

Recommendations

– The uncertainties of data should be communicated to users.
– The indicator sets should be kept under review.

Breakout C – Sustainable Development indicators (SDI)

[Chair: Asta Manninen;
Introduction by: Nicola Massarelli]

Context and objectives

This session served to explore implications for the European Statistical System from the adoption of the United Nations Sustainable Development Goals (UN SDGs) and associated commitments by signatories to the Agenda 2030. The 17 SDGs have been translated into 169 targets that all signatory governments committed to monitor and regularly report on. The UN Statistical Commission has approved a list of 241 global indicators for this purpose. The SDGs are unique policy goals in their claim to universal applicability and in their aim to invite changes in production, consumption, and lifestyles, across levels of social organisation: individual, organisational, local, regional, national and global. New responsibilities have to be assumed at each of these levels, and impacts of this should be monitored.

Challenges

In the workshop, it was noted that the SDGs welcome and invite a fundamental reframing of current ways of producing, analysing and acting on statistics and indicators. Reframing will not only concern statistical methods and modelling, but also approaches to collaboratively gathering data and co-producing statistics and indicators with all stakeholders, and reviewing quality criteria for indicators accordingly. The challenges highlighted included:

- Developing locally and globally appropriate indicators from statistics to assess progress towards normative sustainability goals relating to human-environment interactions.
- Developing better data, methods and models to gain an enriched understanding of interdependencies of changes in technological, economic, societal and environmental spheres, which were traditionally monitored fairly independently.
- Accelerating change along all of these spheres due to their greater interconnection also implies that we can learn less from the past, requiring designing of statistical methods and models with improved representations of uncertainties in visualisations of past trends and improved ways to represent alternative futures and desirable visions. The entire statistical system needs to be designed to allow all of society to learn quicker from emerging data, beyond the traditional target of informing evidence-based policy-making.
- The need to create knowledge from statistics and indicators that is actionable across different stakeholder groups, as well as across different governance levels invites designing a statistical system that can diversify and use multiple sources of information, allowing the co-creation of statistics with diverse actors from the public and the private sector, and civil society.

The Sustainability Alliance in Italy was discussed, as an interesting initiative to engage more representatives from organised civil society, as well as diverse actors across the range of levels of governance. Objectives of this alliance include a systematic assessment of the applicability

of the UN SDGs goals and targets in diverse regions across Italy to make recommendations on the co-production of an actionable monitoring system.

Recommendations

I. Developing more collaborative processes for the production of indicators and statistics:

- Producers of statistics are invited to conduct more systematic 'stakeholder analyses': who are they, what are their needs, and how might they be engaged in the production process. Methods and technologies for working with diversified data sources were deemed key.
- A second key question to be addressed is: 'How can we get closer to producing more meaningful data for citizens and firms?' Investigation of more diverse approaches to disaggregation possibilities for national level data and statistics across diverse social groups, and spatial organisation was deemed helpful. New approaches to representation and visualisation of data should be co-created with stakeholders through research in human-computer interface usability labs.

II. Review of quality criteria for indicators and statistics:

- The social sciences have a role to play in better understanding quality criteria for statistics and indicators as a basis for deriving actionable knowledge for very diverse groups within society and across governance levels. Suggested actions included critical studies of actual use and impacts of statistics (whether intended and desirable or not); analyses of misuse and questioning the legitimation of uses; better understanding critics of measurement regimes; and staging transformative science in which diverse stakeholders and experts co-create new knowledge and approaches, and jointly define quality criteria.
- How can we develop and work with meta-data on attributes of sets of indicators that allow reflective learning about the relation of indicator systems and societal change for more sustainability.

III. Towards a learning society in times of accelerating change:

- Learning from parallel change processes and how they affect different organisations, for instance looking at responses to technological change in the media, in order to become more effective to address very diverse needs of very different stakeholder groups with their data and analyses.
- Statistical literacy was deemed to be key for societal learning from statistics: working with and in schools in developing teaching materials that allow for experiential learning based on statistics and indicators was deemed key towards contributing to a learning society.

Plenary 3 – Other ways of developing indicators

[Chair: Ineke Stoop;
Presentations by: Michaela Saisana, Jolanta Reingarde, Stina Hōgnabba]

The **third plenary session** focused on other ways to construct indicators, either by looking at work from non-NSI producers, such as for indicators primarily established by academia, or by looking at different processes and/or different geographical levels (bottom-up instead of top-down), or by presenting other types of indicators (e.g., Composite Indicators – CI).

A large variety of these indicators are established and used in and outside the European Commission. Various indicator sets are established for specific local purposes, such as the indicators for monitoring young people's wellbeing in Helsinki. A number of composite indicators/indices have also been constructed, and examples of these are the Gender Equality Index and the Job Quality Index.

Composite indicators

- There are ca 130 composite indicators used in the European Commission. In around 50% of the cases, the JRC helped with the development.
- CI have their specific purpose. They complement indicator sets and systems rather than compete with them:
  - Making aware of a problem, raising attention.
  - Giving a holistic picture of an issue, some sort of metadata analysis to see the forest beyond the trees.
- The conceptual context has to be taken into account when drawing conclusions.

Gender Equality Index

- Need for a specific index for EU countries. It was established with broad stakeholder engagement, which raised the expectations by the involved groups.
- The index was established with a concept-driven approach, not based on data availability to also show data gaps.
- It is composed of 26 variables, developed also with assistance of JRC.
- The challenges are availability and comparability of data, timeliness of data and the interpretation of trends that the index shows.
- The discussion revolved around the correlation of this index with other features of a society like migration, GDP, child-care services etc.

Monitoring and reporting on wellbeing of young people in Helsinki

- A concept-driven approach based on the capability approach of Amartya Sen and Martha Nussbaum.

– Use of multi-source information: Not an index but a combination of official statistics and indicators, research and experience surveys with a focus on easily accessible communication tools.

All speakers welcomed cooperation with research, in the areas of methodology, analysis, communication and visualisation.

Plenary 4 – Concluding session

[Chair: Ineke Stoop
Discussion participants: Marco Babic, Enrico Giovannini, Walter Radermacher]

The **fourth and concluding plenary session** of the Workshop included a panel discussion summarising the main conclusions and 'take away' from the meeting.

Marco Babic, managing editor from Bloomberg news, made the following remarks:

- Official statistics is the gold standard, there is a lot of demand for it by Bloomberg's clients
- Missing is
  - better communication of official statistics with media on the wealth of information that NSIs and Eurostat have, and
  - closer cooperation with media as interactional experts with official statisticians as contributory experts.

Enrico Giovannini, member of ESGAB, mentioned that:

- There is a need for more timeliness in social statistics.
- Economies of scale could be achieved through less repetition of work in the NSIs and Eurostat and through exchange of micro-data among ESS NSIs.
- There is an underuse of micro-economic data.
- More research is needed on model-based indicators, e.g. to measure resilience.
- On governance: the peer-to-peer approach similar to the Bitcoin's block chain more and more happens also in statistics to validate data and as a building-trust system for non-official statistics producers.
- There is a need for a reality check of the European Statistics Code of Practice.

Walter Radermacher, DG of Eurostat, put forward a list of wishes for society, science and statistics:

- Statistics
  1. Stakeholder inclusion / participation: define and learn from best practices / experiences;
  2. Awareness raising internally on the production side, training skills;
  3. Ethics, good governance;
  4. Indicators for quality, metadata, labelling and branding;
- Science
  5. Research in ST&S for technology statistics (statistics 5.0);
  6. Methodologies for composites etc., modelling ;
  7. Perception tests of visualisation tools (laboratories like for questionnaires);

– Society

8. Create a data culture by
   - Improving the literacy in the information age;
   - Intensifying cooperation, partnerships with media, partnerships, data retailers, education system;
9. Give data and data analytics a positive image and make it clear that the statistical infrastructure needs to be maintained, of course as part of a changed data landscape (compare with media).