United Nations

ECE/CES/2013/2

Economic and Social Council

Distr.: General
28 May 2013

English only

Economic Commission for Europe

Conference of European Statisticians

Sixty-first plenary session
Geneva, 10-12 June 2013
Item 5 of the provisional agenda
Work of the High-level Group on the Modernization of Statistical Production and Services

Report of the High-level Group on the modernisation of statistical production and services

Note by the secretariat*

Summary

> The current note provides an update on progress to implement the strategy of the High-level Group. It also proposes a re-organisation of the related groups and activities. The Conference will be invited to discuss the current and future work programme of the High-level Group.

> The High-level Group presented a strategy for the modernisation of statistics to the 60th plenary session of the Conference. The Conference "expressed its strong support for the work of the High-level Group and endorsed the strategy. The Conference stressed the long-term nature of the High-level Group strategy and the need to commit resources to common activities for mutual benefit." (ECE/CES/83).

> The Conference is now invited to give feedback on the following points:

> (a)   What are the priorities for international collaboration activities in the area of the modernisation of statistical production and services?

> (b)   Do you support the proposed new governance structure for activities and groups overseen by the High-level Group?

> (c)   Are you ready to support the work programme of the High-level Group, and commit resources for implementation actions?

---

* This document was submitted late due to delayed inputs from other sources.

Please recycle

I. Introduction

1.   The High-level Group (HLG) was created in 2010 by the Bureau of the Conference of European Statisticians. It comprises the heads of ten national and international statistical organizations, and has a mandate to reflect on and guide strategic developments in the ways in which official statistics are produced.

2.   Following the endorsement of the strategy for the modernisation of statistical production and services by the 60th plenary session of the Conference, in June 2012, the HLG has been advancing a number of implementation actions. This paper presents results so far, work in progress, and plans for the future.

3.   Given that all statistical organisations face resource constraints to a greater or lesser extent, the HLG strategy needs to be implemented in the most efficient way possible. The HLG therefore proposes a re-organisation of the groups and activities that it oversees, to ensure a common focus and coherence across the different initiatives needed to implement the strategy. A new governance structure is proposed, and outlined in this paper.

II. Results so far

4.   The HLG has overseen the production of two main outputs so far. The first was version 1.0 of the Generic Statistical Information Model (GSIM), which was released in December 2012, and the second was a paper entitled "What does Big data mean for official statistics?" which was released in March 2013. These outputs are summarised in the following paragraphs.

A. Generic Statistical Information Model

5.   The HLG identified the GSIM as a key standard, in partnership with the Generic Statistical Business Process Model (GSBPM), to drive the modernization of official statistics. Statistics are produced by following a set of processes, such as those described in the GSBPM. The GSIM defines and describes the information (data, metadata, rules, parameters etc.) that flows between the steps in these processes. It provides common terminology to improve communication about the production of statistics, within and between organizations, making it easier and faster to collaborate and exchange tools and ideas.

6.   The development of the GSIM followed a rather different approach to that for other statistical standards. As an experiment, methods from the "Agile" approach used increasingly within the information technology industry were adapted and applied to the statistical standards development process. This included organising three "sprint" sessions during 2012. These "sprints" brought together around 15 experts in different disciplines (information technology, methodology, metadata etc.) in a single location for up to two weeks to solve specific issues and make rapid progress towards finalising the model. Between "sprints" the wider international statistical community was invited to give feedback on interim results. At the same time, virtual task teams continued to develop the model, meeting weekly be web conferencing and working on a wiki platform.

7.   In total, fourteen countries and three international organisations were actively involved in the "sprints" and virtual task teams, with several others providing comments and inputs during the public consultation periods. Representatives of the research and data archive communities also participated.

8. The requirement from the HLG was to deliver a model that was "good enough" by the end of the year, rather than something that would be closer to "perfect" over a much longer time period. Feedback so far suggests that this experiment was successful, and indicates that this way of working could be applied to other standards-development activities.

B. Big Data

9. One of the conclusions from the High-level Seminar on Modernization of Statistical Production and Services (St. Petersburg, Russian Federation, 3-5 October 2012) was that: "Big data is an increasing challenge. The official statistical community needs to better understand the issues, and develop new methods, tools and ideas to make effective use of Big data sources. This includes closer integration with geographical data and standards". As a follow up activity, it was proposed that the HLG should provide "a document explaining the issues surrounding the use of "big data" in the official statistics community".

10. The HLG convened a group of experts from national and international statistical organisations to address this requirement. The resulting paper was published on the Internet[1] in March 2013, and is reproduced as document ECE/CES/2013/20.

III. Work in progress

11. In February 2013, the HLG formally launched two projects: Common Statistical Production Architecture, and Frameworks and Standards for Statistical Production. This section outlines the progress so far within these projects. Both of these projects remain open to all interested parties. Any organisation wishing to get involved should contact the UNECE Secretariat.

A. Common statistical production architecture

12. This project, also known as "plug and play", has two main strands, developing the architecture, and testing it through a proof of concept. So far the progress has been mainly on the first strand. This project is currently on schedule, and highlights so far include:

(a) A one-week "Architecture Sprint" was held in Ottawa in April, hosted by Statistics Canada. Fifteen participants from ten organisations reached agreement in all key areas, and produced version 0.1 of the architecture documentation;

(b) Version 0.1 of the documentation was released for public comment from 22 April to 17 May;

(c) Presentations and informal workshops at the 2013 Management of Statistical Information Systems (MSIS), Statistical Metadata (METIS) and Statistical Information Systems Architecture and Integration (SISAI) meetings generated considerable discussion and many useful comments from these important user communities;

(d) Over 200 items of feedback were received from the public consultation – mostly favourable or seeking further clarification;

(e) A one-week "Design Sprint" will be held in Rome on 10-14 June, hosted by ISTAT, with a focus on applying the proposed architecture to design the proof of concept

---

[1] http://www1.unece.org/stat/platform/pages/viewpage.action?pageId=77170614

(f) Several software tools have been identified as candidates for inclusion in the proof of concept.

13. Next steps include developing the architecture documentation in parallel with the proof of concept.

B. Frameworks and standards for statistical production

14. This project consists of a number of work packages related to implementing, reviewing and better integrating the key standards, models and frameworks needed for the modernisation of statistical production and services. This project is currently on schedule and highlights so far include:

(a) A virtual GSIM (Generic Statistical Information Model) implementation group has been meeting regularly via web conference since February. It has identified a number of issues and made recommendations;

(b) Two virtual task teams have been meeting fortnightly via web conference to map GSIM information objects to the SDMX (Statistical Data and Metadata eXchange) and DDI (Data Documentation Initiative) information models. The initial mapping is now complete, and further work will focus on adding detail where necessary to support the development of the proof of concept in the architecture project;

(c) The DDI Alliance has used the results of the mapping work in the development of DDI version 3.2, to increase alignment;

(d) Reviews of the GSIM and the GSBPM (Generic Statistical Business Process Model) were officially launched at the METIS meeting, with proposals for revisions being sought by the end of September;

(e) A call for interest has been launched for a virtual Task Team to consider how geospatial standards can be integrated in statistical modernisation activities. Five national statistical organisations have so far volunteered to take part. (Abu Dhabi, Australia, Italy, Mexico and New Zealand);

(f) Project overviews have been presented at the METIS and SISAI meetings in May.

15. As well as continuing and finalising the activities listed above, tasks planned for the next few months include developing a generic DDI "profile" (i.e. a DDI-based specification) for official statistics, mapping the GSBPM to the Fundamental Principles of Official Statistics, and developing materials to assist with the understanding and use of the standards.
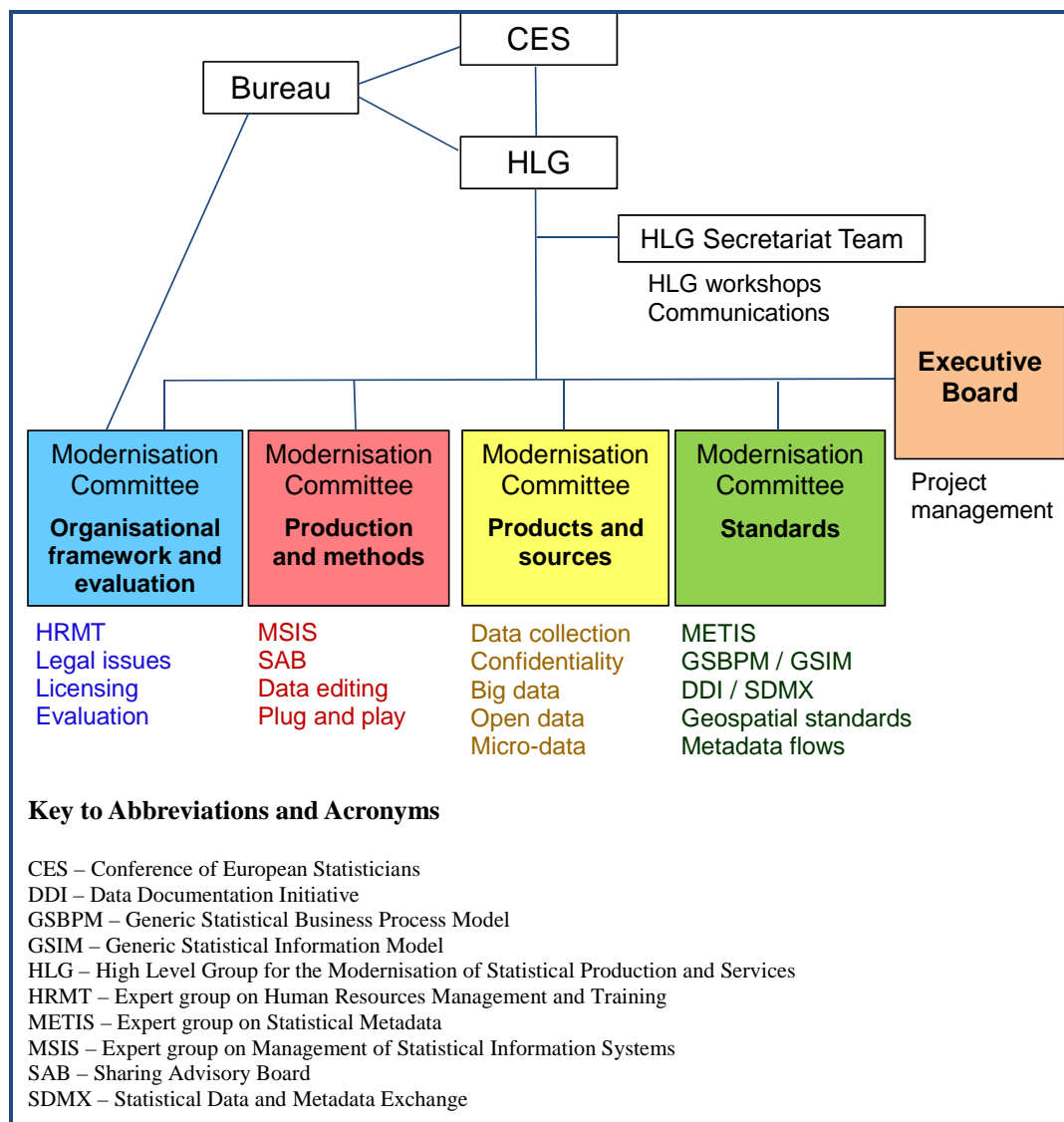
IV. Governance

16. As the work of the HLG increases in intensity and visibility, a clear and forward-looking governance structure for organisational aspects is becoming increasingly necessary. The HLG has proposed a structure that aims to meet the requirements of the international statistical community regarding the modernisation of statistical production and services in the most efficient and effective way.

17. The HLG proposal (illustrated in Figure 1) aims to absorb all existing initiatives and expert groups overseen by the HLG, and reallocate tasks in a way that encourages a more multi-disciplinary approach than has previously been the case, whilst also ensuring better alignment with the HLG Strategy (endorsed by the 60th Plenary Session of the CES in June

2012). The proposal was prepared in consultation with Gartner, and has been agreed in principle by the CES Bureau at its February 2013 meeting.

Figure 1
Proposed governance structure for activities overseen by the HLG

Figure 1. Proposed governance structure for activities overseen by the HLG

Key to Abbreviations and Acronyms

CES – Conference of European Statisticians
DDI – Data Documentation Initiative
GSBPM – Generic Statistical Business Process Model
GSIM – Generic Statistical Information Model
HLG – High Level Group for the Modernisation of Statistical Production and Services
HRMT – Expert group on Human Resources Management and Training
METIS – Expert group on Statistical Metadata
MSIS – Expert group on Management of Statistical Information Systems
SAB – Sharing Advisory Board
SDMX – Statistical Data and Metadata Exchange

A.   Modernisation committees

18.   The four modernisation committees will generate ideas for projects, identify good practices, and highlight issues and developments in their respective fields of competence. All relevant existing formal and informal groups and initiatives overseen by the HLG and/or serviced by the UNECE Secretariat will be consolidated into these modernisation committees:

(a)   Organizational Framework and Evaluation – This committee will consider human resource, training, legal, licensing and similar issues. It will also be responsible for evaluating the success of HLG activities;

(b)   Production and methods – This committee will consider the technical and methodological and architectural aspects of modernising statistical production. It will oversee the organisation of relevant expert group meetings, including on the Management of Statistical Information Systems, and Statistical Data Editing. It will absorb the work of the Sharing Advisory Board, and have a clear role in promoting inter-operability of tools and methods;

(c)   Products and Sources – This committee will consider how to use and integrate a growing range of data sources, and provide new types of outputs and services for users of official statistics. It will look beyond the official statistics community for new data sources and new opportunities to add value by enhancing statistical outputs. It will oversee HLG initiatives in these areas, and the organisation of relevant expert group meetings, including on data collection and confidentiality;

(d)   Standards – This committee will consider how to develop, enhance, integrate and support the range of standards needed for statistical modernisation. It will have operational responsibility for the Generic Statistical Business Process Model (GSBPM) and the Generic Statistical Information Model (GSIM). It will include representatives of other relevant standards groups, particularly the Data Documentation Initiative (DDI) Alliance and the Statistical Data and Metadata eXchange (SDMX) Sponsors. It will oversee the organisation of relevant expert group meetings, including on statistical metadata (METIS). It will absorb work on metadata flows within the statistical business process, and the SDMX/DDI Dialogue group, facilitated by the UNECE.

19.   The modernisation committees will include a mixture of domain experts and senior managers with executive responsibility for that domain within national and international statistical organisations. Where appropriate, they will also include representatives of other organisations and initiatives that support the vision and strategy of the HLG. They will oversee the organisation of expert group meetings and any temporary task teams that are needed for initiatives supporting the work of the HLG.

B.   High-level Group secretariat team

20.   The HLG Secretariat Team will continue to be responsible for strategic and administrative support to the HLG. It is also responsible for organising the annual HLG workshops and communication about the work of the HLG. The existence and roles of the Secretariat Team are already established in the terms of reference for the HLG. Members of the Secretariat Team are nominated by the HLG members.

C.   Executive Board

21.   The Executive Board will be responsible for the strategic management of on-going HLG projects. It will prepare project proposals for agreement by the HLG, and seek support and resources from interested organisations. Following the completion of a project, the Executive Board will monitor, and where necessary, coordinate the implementation or use of the project results. It will assess the need for any follow-up activities, and advise the HLG accordingly.

22.   The Executive Board will be comprised of senior managers from national and international statistical organisations, with the authority to commit the resources of their

organisations to supporting HLG activities. It will also include representatives from the four modernisation committees, to ensure coordination, and give access to broader perspective on modernisation activities. It can co-opt temporary members with relevant knowledge and experience for the specific projects being undertaken at the time.

23. The precise nature of the relationship of the Executive Board to the modernisation committees remains to be resolved. The HLG is currently considering two scenarios, and feedback from the CES would be welcome.

(a) Scenario 1: The Executive Board, supported by the Secretariat Team, also coordinates and provides strategic guidance to the modernisation committees. It ensures that their activities are aligned with the current projects and priorities of the HLG, and advises them about what inputs are required and when. The main risks associated with this scenario are that:

(i) The wider remit of the Executive Board reduces its focus on overseeing projects and implementing results;

(ii) The potential overlap of coordination and guidance functions causes tension within the structure;

(b) Scenario 2: The Executive Board focuses solely on the implementation of projects, and although it includes representatives of the modernisation committees, it operates at the same level as them within the governance structure, and leaves the coordinating role to the HLG. The main risks associated with this scenario are that:

(i) The full burden of coordination falls on the HLG and will take time, reducing the scope for consideration of more strategic issues;

(ii) The relatively narrow focus of the Executive Board reduces its attractiveness to leaders of modernisation programmes, making it difficult to attract appropriate members.

_____