REPORT OF THE WORKSHOP

1.   The Workshop on the Modernisation of Official Statistics was held in Geneva, Switzerland, on 19-20 November 2019. The workshop was attended by representatives from 37 countries and organisations, namely the statistical offices of Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Canada, Denmark, Estonia, France, Germany, Greece, Hungary, Israel, Italy, Mexico, Montenegro, Netherlands, the Republic of North Macedonia, Norway, Poland, Republic of Korea, Serbia, Slovenia, Sweden, Switzerland, Turkey, Turkmenistan, United Kingdom of Great Britain and Northern Ireland, and United States of America as well as by representatives from the Statistical Office of the European Union (Eurostat), United Nations Statistics Division (UNSD), the United Nations Development Programme in Turkmenistan, International Labour Organisation (ILO), European Free Trade Association (EFTA), the International Monetary Fund (IMF), the Organisation for Economic Cooperation and Development (OECD), the World Bank and the United Nations Mission in Kosovo (UNMIK).

2.   The workshop was hosted by UNECE. Taeke Gjaltema, Chief of the Statistical Management and Modernisation Unit of the UNECE Statistical Division, and Lidia Bratanova, Director of the UNECE Statistical Division opened the workshop and welcomed the participants.

3.   Mr. Anil Arora, the Chair of the High-Level Group for the Modernisation of Official Statistics (HLG MOS), provided a welcome address and presented the key achievements of this year's work program. He thanked all involved for their commitment and the considerable output they produced in 2019. The Chair reminded participants of the ongoing challenges we face and that the workshop was an important tool in identifying the priority activities and to advise the HLG-MOS and its Executive Board on which projects to include for next year.

4.   The workshop consisted of two sessions. The first session focused on reporting the progress on the 2019 work program. A summary of this session is included as Annex 1. The second day was dedicated to setting the priorities for the 2020 work program. Project and activity proposals that were presented and other background documents and presentations are available at from the workshop website: https://statswiki.unece.org/x/ERBRDw

Project Proposals for 2020

5.   After the project proposals were presented, the experts were divided into five groups to discuss and evaluate them according to a set of criteria and to propose which should be selected for the 2020 work programme. The following four project proposals were presented at the workshop:

   a.   Data Science Lab and Collaboration Platform (Mexico)
   b.   Data-driven decision-making support at local level (Serbia)
   c.   Machine Learning II (ML Project group)
   d.   Secure multiparty computation/Input Privacy-preserving Technique (Italy and Netherlands)

6.   The proposal for the second year of the **Machine Learning** project received most support from the participants. In general, it was seen that community would benefit from a second year and that the project group had a strong momentum. The project is demand driven as all offices are interested in the outputs. The need to produce concrete outputs and how to embed Machine Learning in mainstream production of official statistics could be more clearly defined in the project document.

7.   The **Data Science Lab and collaboration platform** proposal was seen as an interesting idea and important for the modernisation community. However, many participants felt there were other options to follow-up that would be more appropriate than a project. The perception was that it was more suitable as a continuous activity rather than a one-time project. I should also be made clearer whether the concept was for a science lab or rather a collaboration platform or a combination. I was also recommended that UNECE create better connections between the various activities. There were already ongoing activities with which it has to be coordinated.

8.   With respect to the '**Data-driven decision-making support at the local level**' there were concerns that the specific national political and administrative context was too different to develop a common approach. Similarly, differences in the structure of the national statistical system was seen as a potential obstacle for a joint project. There were also worries that the focus was too much on the policy side. It was also suggested that it should be built around the SDGs. In general, the participants considered the proposal was an innovative idea with value and that it needed further consideration.

9.   The '**Input Privacy-preserving techniques**' project proposal has work packages on secure multi-party computation and homomorphic encryption. There were concerns about the maturity of the topic, but it was generally agreed that it is a general challenge for nearly all NSOs and that more work need to be done in this area. How to explain and communicate such techniques was seen as one element that was missing in the proposal. While it was felt that a one year project would not be enough for such a topic, there was support to start the work in this field. Some work will be needed to properly scope the level of ambition for this project.

2020 Activity Proposals for the Modernisation Groups

10.   There were nineteen activity proposals submitted. Proposals that were not submitted by existing Modernisation Groups were listed under a Group where they have most relevance. The participants were divided into six groups, two of them discussed and prioritized the proposals for one of each Modernisation Groups. This led to the following breakdown:

   a.   Supporting Standards
   - Linking GSBPM and GSIM (extension of existing activity)
   - Core Ontology for Official Statistics (extension of existing activity)
   - Metadata Glossary (extension of existing activity)
   - GSBPM tasks
   - GSIM soft updates and user support
   - Detailing GAMSO Corporate Support in connection to GSBPM
   - Application of GSBPM for geospatial information

   b.   Developing Organizational Capability
   - Ethical leadership Framework
   - Skills and Capability Framework
   - Competences training and development
   - Workshop on HRMT
   - Future of work and the workplace in the context of modernization agenda

- Social Media Strategy
- Sprint to identify and prioritize activities related to Communication
- Internal Communication and Culture change

   c. Sharing Tools
- Updating CSPA catalogue and adding services
- Digital CSPA documentation and promotion
- StatBots
- Synthetic data for Administrative Sources

11. ***Developing Organisational Capability and Communication:*** The Executive Board had already proposed that communication would be added to this group. There should be an alignment of core skills with the statistical capability framework. Implementation examples of the communication maturity model and development of internal communication at global level would be welcomed. A (virtual) sprint should be organized to discuss the 2020 work programme of this group and communication experts must participate in that sprint to ensure success.

12. ***Supporting Standards***: There were three proposals for extensions of ongoing work. These should be allowed to complete the work but a timebox approach might be needed. It was also suggested that given the interlinkages, these activities might benefit from merging them into one task team. Regarding the new proposals, there was a strong support for the application of GSBPM for geospatial information. This was seen as long overdue work that should be considered a priority as it would have strong interest from several countries. User support for GSIM was seen as another priority topic. Making the model more understandable to non-specialist users was important. There were mixed views about working on further (national) sub-levels of GSBPM. This might be helpful but could create confusion if it is just a description of tasks without showing how the tasks could be put together. The chair of the Supporting Standards group commented that, to prevent dilution of resources and time-box it, they could try to see which proposed activities could be done sequentially in 2020.

13. ***Sharing Tools***: It was felt important that work continues on CSPA but the group clearly needs revitalisation. The constant flow of innovations and new ideas about architecture and technology needs to be handled. Examples such as serverless functions, notebook solutions and how to interact between services and these types of platforms, or how to create cloud-ready services, show that there is a need for continuous adaptations. The connection between CSPA and CSDA should be explained better. Connecting the services with business needs and actual willingness to develop or reuse tools and collecting and matching them with needs is important to increase further sharing.

Next Steps

14. The Chair requested the chairs of the Modernisation Groups to finalize their proposed plan of activities for 2020, factoring in comments received at the workshop and submit it to the Executive Board for approval. The Exec Board will prepare the 2020 work programme for the projects, the modernisation groups and the Blue Skies Thinking Network and submit it to HLG-MOS for endorsement. At the HLG-MOS meeting in NYC on 1 March 2020, detailed discussions may take place and final adjustments may be recommended. The Executive Board will continue to support the work and provide direction to maintain the momentum and to ensure activities start in January 2020.

Annex 1: Reporting on progress during 2019

Machine Learning Project

16.   The project leader, Mr. Claude Julien (UNECE project manager), presented the progress and achievements made in 2019. The project was structured around three work packages: 1) pilot studies on coding and classification, edit and imputation, and imagery; 2) quality aspects of the machine learning (ML); 3) integration of ML in the organizations. The value addition of the ML was demonstrated through pilot studies. The capability to use ML within the NSO was advanced by sharing codes and practices within the team. The progress report with more details can be found at the workshop wiki page.

Strategic Communication Framework Phase II

17.   Connie Graziadei (UNECE project manager) presented the results of the Strategic Communication Framework for Statistical Institutions Phase II. The Project produced two key elements: 1) Stakeholder engagement and 2) Internal Communications, Employee engagement, Mission, vision and values. Both documents are complementary to the work done last year on the Strategic Communication Phase I, which was endorsed in June 2019 by the Conference of European Statisticians. Based on the very positive comments from the participants, both documents are very timely, useful and should be implemented in the countries. Full documents could be found at the workshop wiki page.

Developing Organisational Capability Group

18.   The work of the Developing Organisational Capability group was presented by its chair, Anna Borowska (Statistics Poland). The group is the continuation of the Capabilities and Communication group and focuses on HRMT aspects of statistical modernisation. The outputs produced this year were the following:

   a. Skills and Capability Framework for NSO's, resulted in the preparation of the placemat on the Key Capabilities for Modernising Statistical Organisations.
   b. Setting vision in NSO's was included in the paper produced by the communications team.
   c. Organisation of the Workshop on Culture Evolution in Statistical Organisations'.

Supporting Standards Group

19.   Ms. Marina Signore (Istat), Mr. Flavio Rizzolo (Statistics Canada, remote attendance) and Mr. Eduardo Jallath (INEGI) presented the activities undertaken by the Supporting Standards group and its task teams. The main activities and outcomes are as below:

   a. Linking GSBPM and GSIM: linking was completed for GSBPM phase 5. The team proposed to continue the work for other phases in 2020;
   b. Alignment of GSBPM Overarching Processes with GAMSO: (pre-edit version) paper is produced and available at the workshop wiki page;
   c. Core Ontology for Official Statistics: first version of the ontology was created. The team proposed to continue the work for public review and governance model in 2020;
   d. Metadata Glossary: about 70 GSIM terms were reviewed. The team proposed to continue the work for the rest of the terms in 2020;
   e. GSIM e-training: the activity is completed. Training materials (e.g. presentation slides, recording) will be made available on the GSIM wiki

20.   The meeting participants remarked on how widespread GSBPM is among national statistics offices around the world. Several international organizations found the model very helpful for

capacity building in developing countries as well as for their own data production process. Given the increasing interest, the efforts of task teams to integrate the models were appreciated.

Sharing Tools Group

21.   Juan Munoz (INEGI) and Jakob Engdahl (Statistics Sweden), presented the work of the Sharing Tools group and the outcome of the ModernStats World Workshop that was jointly organized with the Supporting Standards group. The main output for 2019 included:

a.   The CSPA 2.0 document is nearly ready to be released. The previous version was update based on international feedback and now includes the restated CSPA vision with a stronger focus on sharing first and on the concept of features and requirements.

b.   Eight more services were added to the CSPA Service Catalogue

c.   The ModernStats World workshop had four main components: i) promoting new developments of the ModernStats models, ii) increase the understanding of the models, iii) facilitate the sharing of experiences and plans, and iv) identifying opportunities for collaboration.

Blue Skies Thinking Network

22.   The coordinator leading the BSTN, Barteld Braaksma (Statistics Netherlands) presented the work conducted within the Network. The goal of the BSTN is to identify and evaluate new opportunities, to generate new ideas and to develop concrete proposals. The Network concluded the following activities in 2019:

a.   Thirteen potential topics were identified to be considered for future work under the HLG-MOS. These were evaluated, prioritized and further discussed.

b.   This led to two project proposals i) Data Science lab and Collaboration Platform ii) Input Privacy-Preserving Techniques and one activity proposal on Synthetic data for Administrative Sources.

c.   Proposals with respect to StatsBots and Data-driven decision making support at local level were also discussed and suggestions for follow-up were made.

Other outcome in 2019

23.   Daniel Kilchmann (Swiss Statistical Office) presented the Generic Statistical Data Editing Model (GSDEM). The model is seen as a useful tool to standardize the edit and impute process in many statistical organizations. Italy and Machine Learning team commented that the model was used in their works already.

24.   Taeke Gjaltema of the UNECE Secretariat presented the outcome of other thematic workshops under ModernStats. The focus of these workshops is on innovative developments in their respective areas. The main objectives are to provide a platform to share innovative practices, to enable collaboration, and to identifying topics for future work. The outcome following workshops were presented:

a.   Statistical Data Collection Workshop, 14-16 October 2019, Geneva, Switzerland.

b.   Workshop on Statistical Data Confidentiality, 29-31 October 2019, the Hague, the Netherlands.

c.   Workshop on Statistical Data Dissemination and Communication, 12-14 June 2019, Gdansk, Poland.