High-Level Group for the Modernisation of Official Statistics: 2020 Work Programme

Introduction

1. The High-Level Group for the Modernisation of Official Statistics (HLG-MOS)[1] provides a collaborative platform for experts in statistics to develop strategies and solutions in a flexible and agile way. The work of the HLG-MOS is open to all who are willing to contribute. HLG-MOS must ensure that it remains adaptive to the changing environment and shifting landscape of challenges and opportunities. Its strategic vision is therefore regularly updated and new priorities are set. The annual work program has to reflect these changing needs, while at the same time continue to support or further develop outputs developed earlier. To guarantee an optimal outcome, a process combining top-down and bottom-up approaches is followed.

2. The chair of the HLG-MOS sends out to all members of the Conference of European Statisticians (CES) an open call for submission of project and activity proposals for the next year. Since 2019, proposals can also be submitted to the Blue Skies Thinking Network (BSTN) at any time. After an initial evaluation by the BSTN, the Executive Board of the HLG-MOS provides feedback and decides which proposals will be considered for projects, or flagged for other types of follow-up. At the annual Workshop on the Modernisation of Official Statistics[2] at the end of November, these proposals are presented and discussed by experts that are working on national and HLG-MOS modernization activities. Through small group discussions, project proposals are evaluated and ranked, and suggestions are made for follow-up on activity and other proposals. Ensuing, the Executive Board discusses and further refines the proposals. The selected projects and activity proposals are finally submitted for endorsement by the HLG-MOS.

3. This document outlines the work program that was created as a result of the discussions at the Workshop on the Modernisation of Official Statistics that was held on 19-20 November 2019 in Geneva, and includes subsequent further refinements by the Executive Board. The intention of the paper is to provide information to the community on the work that will take place so they can participate in the activities that are of most benefit to them.

HLG-MOS Projects 2020

4. The following two project were selected and will be recommended for HLG MOS approval for 2020: Machine Learning (Phase 2) and ii) Input Privacy-preserving Techniques. The content of the Machine Learning proposal was refined at the Modernisation Workshop and then by the Executive Board, as summarized below. The Input Privacy-preserving Techniques project will organize an expert sprint session in January to further define and scope the proposal.

5. **Machine Learning phase 2** (ML) – the proposal was prepared by the project managers and the current project members. After conducting a large number of pilot studies in 2019, the focus will now be on how to go about integration of ML in statistical organisations. The following Work Packages were identified:

[1] Refer to Annex 2 for the structure of the HLG-MOS.

[2] The participants of the workshop are the experts that were active under the various projects and groups under the auspicious of the HLG-MOS in 2019 and other experts sent by NSOs of CES member countries as well as members of the HLG-MOS and the Executive Board.

- **WP1: Demonstrating the value added of Machine Learning**. The pilot studies being conducted in the three areas (coding, edit and imputation, and integration of satellite data with other statistical sources) will continue but the focus will now be on concrete outputs and the synthesis of demonstrations, recommendations on use of ML and supporting reference documents.

- **WP2: Quality**. The goal of this work package is to propose quality framework components for evaluating ML processes and statistics produced using them, as well as to bridge the gap between these components and those in existing frameworks. This will allow NSOs to compare outputs from traditional and ML methods and to inform users of data quality when ML is used to produce outputs.

- **WP3: Integration of Machine Learning**. Integrating machine learning into official statistics requires more than simply building and using machine learning systems. Today, pilot studies are often unable to be implemented into a production processes because of a variety of organizational and structural impediments including uncertainty over who should be responsible for building, evaluating, and maintaining these highly interdisciplinary systems. The goal of this work package is to explore how different NSOs are organized to integrate ML in their production processes, and report on the different practices, sources of impediments and propose successful practices.

6. Input Privacy-preserving Techniques -: The topic was identified as a priority topic by the BSTN core team and after further discussions submitted as a project proposal (prepared by representatives from Istat and Statistics Netherlands). Statistical organizations are more and more investing on becoming part of a data ecosystem where they acquire and integrate data from multiple sources and provide richer statistical products. The goal of this project is to investigate modern and innovative privacy-preserving technics and methods that offer protection on the input side, for instance.

- **WP0: Virtual Sprint to scope the project and its Work Packages**: Given the technical nature of the topic of this project, a virtual Sprint will be organized as soon as possible to further define and scope the work packages. Establishing how to set up the various teams to effectively support the selected work packages will also be an objective.

- **WP1: Documenting statistical use-cases relevant for application of privacy-preserving techniques.** The first step is to investigate and document statistical use-cases where input privacy-preserving techniques can provide (part of) solution. While theoretical descriptions of existing techniques in relation to (mostly academic) use-cases are available, the 'real-life' application of these techniques in typical statistical scenarios is at the moment a grey area. Part of this WP is also to establish criteria for assessing maturity and readiness of techniques that will be tested in specific modules (WP2 and WP3).

- **WP2: Secure Multiparty Computation (SMC) methods**. SMC is a class of methods based on the principle of secret sharing. The secret shares are produced in a way that does not reveal anything about the input source data to the individual compute parties but allows

to compute exactly the correct output that would be obtained by a direct computation on the clear input. WP2 will investigate and prepare a plan to test SMC methods; their maturity and applicability for statistical scenarios and mature methods will be supported with practical Proof of Concepts.

- **WP3: Homomorphic Encryption (HE) methods.** Homomorphic Encryption is a class of methods with a special algebraic structure that allows computations to be performed directly on encrypted data without requiring a decryption key. WP3 will investigate and prepare a plan to test HE methods and assess their maturity and applicability for statistical scenarios. For methods identified as mature the assessment would be supported with PoC or workable prototype in partnership with academic or private organization.

- **WP4 Identify opportunities for operationalization of methods and sharing of solutions:** This work package will identify opportunities for operationalization of mature methods in generic scenarios where practical solutions could be well documented, reused and shared across statistical community.

7. The work of the HLG-MOS projects is normally led by project managers that are either assigned by a member of the HLG-MOS (in kind) or contracted by UNECE using the HLG-MOS Trust Fund. A project manager has already been identified for the Machine Learning project. The aim is to have the second project manager identified by the end of January or February latest. Given the nature of the project, a lead substantive expert and a part-time project manager might be assigned. The UNECE wiki and web conference are used to monitor the progress of the projects and UNECE provides additional administrative and secretariat support.

Additional details on the two selected projects can be found in Annex 1.

Modernisation Groups

8. Modernisation Groups are organized around common themes and the selected activities are normally organized through Task Teams. Groups normally have frequent virtual plenary meetings and Task Teams typically have monthly virtual meetings. The groups may have additional meetings or organise sprint workshops to expedite the work. The chairs of the group provide monthly updates to the Executive Board.

9. The HLG MOS has mandated the Executive Board to regularly reflect on the structure and the areas of work of the Modernisation Groups and to evaluate whether the groups are aligned with the key priorities identified by the HLG MOS. The Executive Board further envisions a concept of a kind of workflow from identifying new areas of work (BSTN & Thematic Workshops) to creating new products (projects). These new products need to be maintained and further developed to remain relevant and, sometime, integrated with existing ones (modernization groups). These HLG MOS outputs subsequently need to be supported and communicated. The concept also includes that there can be a conscious decision to have no follow-up within the HLG MOS of a project or activity.

10. The HLG-MOS has identified culture evolution as a priority topic. The Workshop on Culture Evolution concluded that (internal) communication is a crucial component in creating an agile and

adaptive culture. At the same time, the Workshop on Dissemination and Communication of Statistics identified culture change as a key topic for future work. The Strategic Communication Framework Projects (phase 1 and 2) have produced useful tools to assist countries in developing communication strategies in various areas. In response to the CES broad consultation on Phase 1, several countries indicated they wanted it to be a living framework that should be updated with more case studies. The Executive Board has therefore decided to add Communication (back) to the Developing Organisational Capability group to capitalize on these synergies.

Capability and Communication Group

11. The Modernisation Group on Developing Organisational Capability (DOC) focused on the organisational changes necessary to support modernization in statistical organizations. Currently, this group is chaired by Poland, but a new Chair will need to be identified. With the addition of Communication, the group is tentatively renamed as the Capability and Communication group. The group will setup task teams to consider the following substantive topics during their monthly web conference meetings:

- **Competencies Training and Development –** The group will build a repository of best practices for training practices and the guidelines on training activities supporting the modernization process in line with the Statistical Training Framework.
- **Future of work in the context of Modernisation of the workplace –** The activity will establish an inventory of modernisation topics currently being examined by other working groups within the HLG community. The group will develop better engagement and communication structures with these groups and collaborate to identify organisational capability challenges associated with outputs**.**
- **Ethical Leadership Framework –** The activity comprises the development of a common vocabulary and framework and concrete suggestions (Quick Guide) to support NSOs leadership in real-work-type situations as well as in implementing a behaviour in the work context based on the Corporate Social Responsibility approach.
- **Culture Change and Internal Communications Strategy** – Based on the Strategic Communication Framework, the group will develop an internal communication strategy and tools for the NSOs to implement culture change. It will integrate HRMT and Communication aspects and strategies to have joint approaches.

12. A virtual sprint will be organized in January or early February to identify and prioritize activities related to communication (including the activity proposal on Social Media Strategy).

13. The Capability and Communication Group will also organise the biennial **Human Resources Management and Training workshop**, that this year will be organized back-to-back with the Workshop on Dissemination and Communication of Statistics, with a joint day, in September 2019 in Lisbon, Portugal. Culture evolution and internal communication will be one of the topics on the joint day.

Supporting Standards Group

14. The Supporting Standards Group provides support for the implementation of the "ModernStats" models (GAMSO, GSBPM and GSIM) through a range of activities which include development, promotion and maintenance of the models. Currently, this group is chaired by Italy.

15. The group has plenary meetings every month via web conferences. The group may have additional meetings or organise a sprint workshop to expedite the work progress, as necessary. The Executive Board wants to guarantee that project outputs get a follow-up

16. In addition to the plenary meeting, three separate task teams will progress work on the following topics:

- **Linking GSBPM and GSIM** – This extension of a 2019 activity will continue to map the information objects of GSIM to the processes and sub-processes in GSBPM. The activity will create a governance model for GSIM-GSBPM mapping and create relevant documentation, including a communication paper and further, adding the relevant GSIM objects into the clickable GSBPM.
- **Core Ontology for Official Statistics** – This extension of an existing activity aims to create a common semantic model and vocabulary for official statistics. The core concepts that are cutting across different models were identified. The focus will now be on developing the links with vocabularies in other models and establish the management and governance of these different initiatives.
- **Metadata Glossary** – This existing activity needs an extension **until April 2020** to finalize this alphabetically organized list of terms, their definitions, sources for the definitions, source of the term and explanatory texts.
- **Updating GSIM** – This activity aims to incorporate experiences from countries that have started to incorporate GSIM in their organization. Based on these experiences, a soft update of GSIM to clarify ambiguous points and fix minor errors as well as to update the GSIM documents.
- **Application of GSBPM for Geospatial Information** – The activity will provide guidance on how to use GSBPM with geospatial information by extending the description in GSBPM focusing on activities needed for geospatial information.

17. In collaboration with the Sharing Tools Group, the Supporting Standards Group has setup an Organisation Committee to organise the 3rd **ModernStats World Workshop** in 2020. The workshop aims to progress work on development and maintenance of the ModernStats models and provide a ModernStats models user platform. In particular, the workshop will: i) promote the new developments of the ModernStats models and related works; ii) increase the understanding of the models and interrelationships between them; iii) facilitate the sharing of experiences, ideas and plans for modernising statistical production by implementing the models; and iv) identify opportunities for additional international collaboration activities.

Sharing Tools Group

18. The Sharing Tools Group provides implementation support for the Common Statistical Production Architecture (CSPA) and works on further defining and promoting the shareability concept. The group has been chaired for four years by New Zealand and is now looking for a new chair(s). Extra meetings to progress elements of these topics will be set up on an ad hoc basis. In addition to the monthly meeting, separate task teams will progress work on the following topics:

- **Digital interactive CSPA document and promotion material** – The existing activity, that did not materialize in 2019, comprises of the development of a digital an interactive digital version of the CSPA 2.0 documentation easily accessible for different users and with different knowledge of CSPA and produce a set of CSPA promotion material.
- **Modifying CSPA Catalogue and adding services** – The group will focus on adding services to the catalogue and provide support to submitters and users of services. The catalogue will be aligned with the restated CSPA concept. Additionally, suggestions will be made to redesign/repurpose the Global Artefacts Catalogue to better facilitate the identification of sharable statistical services. There are now forty services available through the catalogue.
- **Streamlining CSPA and integrating new concepts and requirements** – The activity aims to ensure that related models such as Common Statistical Data Architecture as well as the outcome of related projects are consistent with CSPA. Implications to CSPA of other new developments such as serverless architecture, notebook solutions, cloud-ready services have to be identified and documented.

19. In cooperation with the Supporting Standards Group, the Sharing Tools Group will organise through a joint Organisation Committee the 3rd **ModernStats World Workshop** planned for June 2020.

Innovation Stream

20. The Blue Skies Thinking Network is the ideas factory of the ModernStats community. It is led by an innovation manager and consist of a core group comprised of around 10 members from various NSOs and International Organisations. The core team aims at having in-depth as well as broad knowledge of innovation related aspects to facilitate the development of the work and of sufficient heterogeneity to allow for a variety of expertise and views. The core group draws from a flexible pool of resources to assist in the evaluation of proposals.

21. The group can also setup temporary activities to follow-up on project proposals that were not selected or activity proposals that were not assigned to a Modernisation Group. In 2020, the Network will elaborate further on these topics (other topics might be added throughout the year):

- Data-driven decision making support at local level
- Synthetic data for administrative purposes

- StatsBots

22. HLG-MOS members will bring the Network to the attention of their national innovation groups and actively stimulate idea-generation for proposals to be submitted to the Network. To not only depend on proposals and ideas being brought to them, evaluate them and propose some to the Executive Board when they merit further consideration. The Network will actively engage with the statistical community to identify potential topics that merit further consideration.

Other Physical Meetings

23. As in the past, under the auspices of the HLG-MOS several other workshops and work sessions will be organized. The focus is always on innovative developments and modernization. Another key output of these events is the identification of areas for future work and collaboration. The target audience for these workshops includes senior and middle-level managers and they are organised by the UNECE secretariat in collaboration with expert Steering Committees. The following additional workshops are being planned for 2020:

- **Workshop on Statistical Data Dissemination and Communication**, *7-9 September, Lisbon, Portugal* – the focus of the workshop will be on cutting edge ideas, new trends, experiments, and approaches in the areas of statistical data dissemination and communication. This workshop and the Workshop on Culture Evolution (HRMT), will be organized back-to-back.
- **Work Session on Statistical Data Editing**, *15 – 17 April, Geneva, Switzerland* – The workshop will identify new methods that can improve the quality and efficiency of Editing and Imputation (E&I); Investigate the statistical quality risks arising from using new methods and data sources and the ways to address them; Develop approaches to standardizing and implementing statistical editing functionalities; Facilitate the sharing of experiences, ideas and tools for modernizing statistical data E&I process. Topics include methods for machine learning and time series data and new emerging methods.
- **Workshop on Statistical Data Collection**, *October, place and venue to be determined* – The objective of this workshop is to identify innovative ways and best practices in statistical data collection, and to provide a platform for practitioners to exchange experiences and foster collaboration in this area. The workshop has several interactive items and also provides a market place for exchange of services. The workshop addresses topics such as data collection portals, skills and working ways for new techniques and data sources, emergence of chatbots and use of virtual interviewers, questionnaire design for smart phones and apps and other aspects of modernisation of data collection processes and infrastructures.

Monitoring Progress and Coordination

24. The work of the Groups and Projects is reported on a monthly basis at the HLG-MOS ModernStats wiki (https://statswiki.unece.org/x/QY0HBg).The Executive Board discusses the modernization updates and evaluates the progress together with the chairs of the groups and the project managers in their monthly meeting. If needed, the work program is adjusted. There is also a conscious effort to ensure that all activities are continuously aligned and coordinated with other

international initiatives like the programs under the European Statistical System and the UN Global Platform.

Annex 1: 2020 Project Proposals

Business Case for Machine Learning phase 2

Type of Activity			
☐	New project	☐	New activity
☒	Extension of existing project	☐	Extension of existing activity
The project is an extension of the 2019 Machine Learning project sponsored by the HLG-MOS.			
For an overview of the progress of the current ML project, refer to the working documents (most of them were discussed at a sprint held in September): https://statswiki.unece.org/display/MLP/Working+documents			
Purpose			
Based on mutual interest and building on existing national developments, the objective of the project is to advance the research, development and application of machine learning techniques (ML) to add value (relevance, timeliness, quality, efficiency) to the production of official statistics. Building on the engagement of 38 participants from 18 organisations in 14 countries, pilot studies aimed at demonstrating the value-added of ML will be completed; best practices in the implementation of ML techniques will be identified; and knowledge, tools and best practices will be shared. The latter will not focus solely on implementing the ML techniques, but how National Statistical Organisations (NSOs) are organized to move them quickly to the production processes. All this will be underpinned by a quality framework and supporting reference documents.			
Description of the activity			
One of the biggest threat to (NSOs) producing official statistics is that of quickly becoming irrelevant in today's fast-paced and ever increasingly complex society, economy and environment. NSOs are threatened by an increasing number of public and private organisations who produce and promote statistics in a more timely and accessible manner, attracting the attention of policy makers and other users. These data producers use approaches and methods beyond those traditionally used by NSOs, such as machine learning and artificial intelligence. In fact, these approaches and methods are no longer that new anymore and the importance of integrating them into the production of official statistics has now been widely recognized by NSOs. At its November 2018 workshop, the HLG-MOS further brought this point forward by supporting a proposal from the Blue-Sky Thinking Network to launch a Machine Learning Project. The following work packages comprise the project: **Work package 1 – Demonstrating the value added of Machine Learning** Pilot studies are being conducted on: (1) Coding (with examples on product descriptions, industry and occupation, sentiment); (2) Edit and Imputation (with examples on survey and register/administrative data); and, (3) the integration of satellite data with census, survey and administrative data. At the "local" level, the			

topics on which the studies are conducted are mostly relevant to the participating organisations. At a more global level, the studies are determining the value-added of ML in each of these three areas, identifying best practices in implementing ML solutions, raising challenges in integrating them in the production process and providing opportunities to test quality assurance practices. In spite the fact that the project was launched in mid-March and was fully functioning only in May, fourteen presentations, four working papers, 80 reference documents, some software and ML code were being shared in September. Many of them were discussed a sprint.

Work package 2 – Quality

When it comes to trust in official statistics, NSOs hold a competitive advantage in being transparent and publishing details on data sources, methods and various indicators, as described in many quality frameworks. The goal of this work package is to propose quality framework components for evaluating ML processes and statistics produced using them, as well as to bridge the gap between these components and those in existing frameworks. This will allow NSOs to compare outputs from traditional and ML methods and to inform users of data quality when ML is used to produce outputs.

The emphasis has been placed on the accuracy dimension of the framework and ML uses were divided into uses for traditional processes and uses that produced direct outputs. Concepts in the proposed framework are being evaluated in the pilot studies being performed in work package 1 and will continue in year two. The pilot studies are raising issues and identifying best practices in quality assurance (QA). Members are realizing the quality challenges beyond demonstrating the value-added of ML, e.g. QA support in production. They are also identifying other dimensions where ML may add value, these will be included in the proposed framework and evaluated in the pilot studies.

Work package 3 – Integration of Machine Learning

One of the recurring themes from the first iteration of this project was that integrating machine learning into official statistics requires more than simply building machine learning systems. In fact, a number of participants noted that they had already developed otherwise successful machine learning solutions, but had been unable to implement them into production processes because of a variety of organizational and structural impediments including uncertainty over who should be responsible for building, evaluating, and maintaining these highly interdisciplinary systems. The goal of this work package is to explore how different NSOs are organized to integrate ML in their production processes, and report on the different practices, sources of impediments and propose successful practices.

Alternatives considered

The project is likely the only one in the official statistics community solely dedicated to ML. It is also carried out by a large group with a very good mix of expertise in statistics, methodology, IT, data science and subject-matter. Its mandate could be passed on to another group, but given the size of the group and the familiarity that they have gained, a dedicated manager would be required to preserve their momentum. Its activities could be dispersed to other groups, even outside the HLG-MOS, working on broader topics (e.g. Big Data) or specific ones (e.g. use of satellite images), but the attention to ML and advancing its use to transform processes could be reduced.

How does it relate to the HLG-MOS vision and other activities under the HLG-MOS?

The addition and integration of ML solutions are needed to enable NSOs to remain relevant by producing more relevant information with more detail and in a timelier fashion. At the same time, they need to be

developed and implemented in a responsible manner for NSOs to remain and further grow as a trusted data authority. The project is fortunate to have the engagement of 38 individuals collaborating on several pilot studies and other developments. The work of the project is also supported or followed by 30 other individuals from 14 national or international organisations who have requested access to the project's wiki pages. Once completed, all key information will be available online and through a workshop.
Proposed start and end dates
Start: January 2020 — **End:** December 2020
• Complete and document pilot studies, including ML code: February 2020 • Complete summary of value-added of ML on each pilot study theme: April 2020 • Complete best practices in the implementation of ML with accompanying quality framework: June 2020 • Complete review and findings of ML integration practices: September 2020 • Complete the development of a workshop: November 2020 • Wrap-up and recommend where to move any next steps: December 2020

Input Privacy-preserving Techniques

This business case was prepared by ISTAT and Statistics Netherlands and is submitted to the HLG-MOS for their approval.

Type of Activity			
☒	New project	☐	New activity
☐	Extension of existing project	☐	Extension of existing activity

Purpose

Statistical organizations are more and more investing on becoming part of a data ecosystem where they acquire and integrate data from multiple sources and provide richer statistical products.

In this scenario, the issue of privacy preservation is particularly relevant: the more sources are acquired and integrated, the higher are the risks of disclosing information violating individual privacy rights. Hence, from a legislative perspective there are indications to take privacy into account throughout the whole data treatment process, through the **'privacy by design'** concept.

National Statistical Organizations (NSOs) are used to apply techniques for enforcing privacy by design on the **output side**, i.e. when publishing aggregated statistical data for dissemination purposes and when sharing microdata for research purposes with statistical disclosure control (SDC) and other output privacy-preserving techniques.

However, NSOs have still to invest on dealing with privacy protection on the **input side**, in a complementary but distinct way with respect to output privacy preservation investments[3].

Different classes of techniques can be used to deal with input privacy[4]. Among them **Secure Multiparty Computation (SMC)** and **Homomorphic Encryption (HE)** play a relevant role.

These methods are particularly suitable for use in a non-trusted environments such as access to private data, interconnectivity of highly sensitive data for the purpose of scientific research, data analytics in Cloud and AI. The goal of this project is to investigate statistical use cases that require protection on the input side, assess and determine applicability of selected classes of techniques for main scenarios, identify opportunities for sharing across statistical community and create community of practice across statistical organizations and external partners (academia, private sector).

Description of the activity

1 F. Ricciato, A. Bujnowska, A. Wirthmann, M. Hahn, E. Barredo-Capelot, A reflection on privacy and data confidentiality in Official Statistics, ISI 2019.

4 UN Handbook on Privacy-Preserving Computation Techniques, http://publications.officialstatistics.org/handbooks/privacy-preserving-techniques-handbook/UN%20Handbook%20for%20Privacy-Preserving%20Techniques.pdf

The project is divided into four work packages. The approach is iterative and modular in a way that more mature techniques can be tested with PoCs to speed up their adoption and additional techniques could be added as new work packages and strengthen each other if we do them jointly.

WP1. Documenting statistical use-cases relevant for application of privacy-preserving techniques

The first step is to investigate and document statistical use-cases where input privacy-preserving techniques can provide (part of) solution. While theoretical descriptions of existing techniques in relation to (mostly academic) use-cases are available the real application of these techniques in typical statistical scenarios is at the moment still grey area.

Part of this WP is also to establish criteria for assessing maturity and readiness of techniques that will be tested in specific modules (WP2 and WP3).

WP2. Secure Multiparty Computation (SMC) methods

SMC is a class of methods based on the principle of secret sharing. The secret shares are produced in a way that does not reveal anything about the input source data to the individual compute parties but allows to compute exactly the correct output that would be obtained by a direct computation on the clear input.

WP2 will investigate and test SMC methods; their maturity and applicability for statistical scenarios. For methods identified as mature the assessment would be supported with practical PoC in partnership with academic or private organization.

WP3. Homomorphic Encryption (HE) methods

Homomorphic Encryption is a class of methods with a special algebraic structure that allows computations to be performed directly on encrypted data without requiring a decryption key.

WP3 will investigate and test HE methods; their maturity and applicability for statistical scenarios. For methods identified as mature the assessment would be supported with PoC or workable prototype in partnership with academic or private organization.

WP4. Identify opportunities for operationalization of methods and sharing of solutions

This work package will identify opportunities for operationalization of mature methods in generic scenarios where practical solutions could be reused and shared across statistical community.

It will also enable exchanging best practices, sharing knowledge and tools among NSIs. Results of the project will be disseminated through the web and organizing seminars in UNECE countries.

Most of the WP work can largely be done be through virtual meetings, but up to two face-to-face meetings would be needed for fast head start of the project and to create statistical community of practice.
Alternatives considered
Alternative to standalone project could be separate activities for certain techniques undertaken by groups of interested countries or allocated to other Modernisation Groups but in that case the progress would be considerably slower. Use-cases often require combination of privacy-preserving techniques (for example SMC in combination to HE) so it is beneficial to consider applicability of various techniques within the same activity which would be more difficult to achieve without project. Similarly separate activities would be less effective in building international community of practice.
How does it relate to the HLG-MOS vision and other activities under the HLG-MOS?
This project will enable statistical organizations to unlock insights from the data that currently can't be acquired or integrated because of privacy constraints like in scenarios of sharing public-private data or linking privacy sensitive datasets internationally (for example border statistics). Project will build on results of HLG Data Architecture project and UN Handbook for Privacy-preserving Techniques and contribute to future data-driven activities such as Data-driven decision-making support at the local level.
Proposed start and end dates

Start: *January 2020*	**End:** *December 2020*

Annex 2: 2020 Structure of the HLG-MOS