Modernisation of Official Statistics

Project Proposal: Meta-Academy for the Modernization of Official Statistics

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1 Purpose
The purpose of the meta-academy is to remove barriers to co-create training and reuse content on an international level, which will ultimately unleash the creation and use, at scale, of open digital assets to boost National Statistical Offices (NSOs) upskilling necessary for modernization. This project intends to raise the standards of virtual learning on topics necessary for the modernization of statistics but are missing or inconsistent from academic, commercial or in-house offerings. The meta-academy project sets out to create a benchmark to better map existing initiatives and offerings in order to better coordinate efforts, reduce duplication and fill in training gaps. This project will facilitate sharing of skills strategies, as well as catalogues of contents and pedagogical artefacts, and more generally good practices and standards in that space, so that scopes for reuse or co-creation in learning capabilities can be more easily and more systematically spotted and leveraged by all NSOs.

2 Project description
This project has three main work packages that target to create synergies between existing initiatives, identify gaps in topics and methods of training and experiment with co-creation and training in a virtual world.

Work package 1 will focus on the benchmarking exercise among existing initiatives for shared good practices, repurpose existing available material and identifying co-creation of any gaps. This exercise will start off with brainstorming sessions and presentation series to scan existing initiatives in other international organisations, NSOs, academia and the private sector. The brainstorming and presentation series aim to filter down how much of the landscape we would like to analyse in this exercise. The work package will then proceed with an in-depth analysis of a selection of relevant initiatives as a benchmark to then co-design a final framework.

The project is an opportunity to connect multiple initiatives at international level:
- Global capacity building initiatives focusing on certain specific areas of skills or techniques: UNSD big data task force, SDMX sponsors – or specific topics (think of P21 Academy on gender statistics);
- Regional initiatives such as capacity building undertaken by Eurostat in the ESS context or other regional agencies (UNESCAP, AfDB…);
- Sectorial initiatives with an important statistical component – especially driven by UN agencies (ITCILO, FAO elearning academy, UNICEF,…) or the Development Banks;
- Countless initiatives with a large international resonance, led by NSOs or national cooperation agencies (think, for example, of Norway's DHIS2 initiative on health statistics).

Initiatives at national levels (especially those in association with the Academic world – for example, Switzerland's FSO upskilling initiative in association with the EPFL; or ONS' government data scientist programme) should be mapped and analysed in that context, in order to identify transposable approaches.

It is also crucial to position the experience of NSOs with the private sector offering (global e-learning platforms such as Coursera, EDX, BaseCamp... as well are niche players specialised in the field of data science) so as to clarify the scope, specific to official statistics, that should specifically invested in by NSOs in complement to private sector.

This benchmarking extends beyond topics of training and will assess virtual training frameworks in place or being proposed. Interviews will be conducted with initiative leads to map skills strategies and capacity building vehicles, their potential complementarities, and propose good practices to make them more reusable or discoverable. The output for this work package will be a report of finding and an HLG-MOS workshop.

Work package 2 will be an experiment to co-create capacity building content by NSOs on the topic of Git and version control. This is a suitable use case because it is an area that broadly impacts modernization of statistics from basic programming to advanced data science, however it gets little attention in international forums; there is private sector material but they do require an extra layer of adaption and coaching to match the official statistics context; and there is an existing starting point with the current collaboration between Statistics Canada and OECD on creating a Git manual. This work package will hold a series of workshops and online collaboration to complete a "git manual" capturing best practices in the management of algorithms and code bases by statisticians and data scientists in the official statistics context. This collaboration will involve experts leading the development of algorithms design and sharing good practices in their organisations. The expected outputs for this work package include a git manual for official statistics and one HLG-MOS pilot course on version control for official statistics. In addition, this experience will provide real time co-creation lessons learned on frameworks, opportunities and methods developed from work package one.

Work package 3 will finalize the framework for virtual learning, co-creating and reusing content by formalizing concepts, skills mapping, learning outcomes and journeys and content creation best practices. This work package will also address the best delivery method for content and co-creation such as a central platform or network.

3 Alternatives considered

1. There are existing training initiatives that are underway, however there is no coordination, consistency and common standards between initiatives;
2. Existing initiatives at an international level are either sectorial in nature (eg labour statistics for example) or focus on specific horizontal practices (eg SDMX or big data techniques);
3. Existing initiatives at a national level are rarely advertised beyond national boundaries and may be inaccessible due to language barriers;
4. The private sector and academia offer obviously great upskilling opportunities that should be leveraged, however failing to match some dimensions that may be specific to official statistics;
5. If nothing occurs, then NSOs will be duplicating efforts and paying for their own training, either in house or commercial offerings, with varying levels of quality and outcomes – when, in essence, needs are very similar and significant knowledge spill-overs and efficiency gains could be achieved that are only marginally tapped into today.

4 Expected Benefits	
☒	Reduced costs
☒	Increased efficiency
☐	Reduced risks
☒	New capabilities to meet user needs

5 Which key priorities in the HLG-MOS Strategic Framework does the proposed project relate to?	
☒	Take cost out of our organizations to reinvest in more value-added areas
☒	Explore new areas collectively and leverage each other's' research investments in specific areas
☐	Provide whole of government data ecosystems based on international standards, for better estimates in key policy areas
☐	Renew our governance and operating processes

Justification:

In 2020 the Blue Sky Thinking Network ran an activity called *Experimentation to Implementation* to determine if there are common areas that the international community struggle with to move innovations to production. Through this activity, capacity building was recognized as a strategic priority and an area the international community can take concrete steps to address. There are many international and national 'data academies' that are duplicating efforts with no common standards. Much of the existing training is limited to online webinars without pedagogic architecture, certification strategy, or coaching /peer-learning. There are no common standards in terms of technical formats (including discoverability or catalogue) or pedagogic concepts (learning outcomes, self-assessment) that could be leveraged in the official statistics space. COVID-19 has increased the need for quality virtual training. The online component of capacity building and academies at NSOs are struggling to adopt suitable virtual frameworks.

6 How does the proposed project relate to other activities under the HLG-MOS?
This project will consolidate and provide continuity to efforts that the HLG-MOS, UNECE and other associated groups, such as the UN Big Data Group, on creating content and frameworks for virtually training of key aspects necessary for the modernization of statistics. This project will leverage existing frameworks such as the HLG-MOS Capabilities Development and Training Framework and the UNECE Methodology Framework as well as existing networks such as the Blue Sky Thinking Network, as well as frameworks developed by other agencies or at national level[1].

7 Proposed timetable
Work packages 1 and 2 will run concurrently in 2022. While the benchmarking of existing training activities is taking place in the first half of 2022, collaborators will put together a Git manual for official statistics.

Once the Git manual has been completed, members of work package 2 will collaborate with those of work package one to create a framework for virtual learning and implement the framework in practice with the course on Git and version control at the end of 2022.

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[1] Think of FAO's e-learning methodologies and good practices; or ONS' work on the government data scientist.

8 Expected resources and costs
The following are the expected resources required for 2022: • This work package would require a funded resource with pedagogical experience (in-kind or, more likely, $60kUSD to be co-funded by interested stakeholders); • Participants from international and national training initiatives (here, we may think to open the initiave to stakeholders that are not usually participating in UNECE works); • Possibly, participants from the academic and private sector world (especially learning specialist focused on data topics); • Experts on Git and version control; • Space in the UNECE's Wiki to facilitate communication; • Support from the UNECE's HLG-MOS Secretariat to help in the coordination of the group.