UNITED NATIONS COMMITTEE OF EXPERTS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT

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UN-GGIM: Europe Line of Work (LoW) on Data Integration

New approaches for the development of future activities.

Date: 16/06/2025

Scope

The organizing team of the LoW Data Integration, composed of Belgium, Austria and Germany, observes an increasing dynamic within the topic of the LoW Data Integration. The need of data integration in a new data- system and ecosystem and its structure is more valuable than ever before, but the ongoing developments are challenging, especially streamlining the topic with other global and regional activities. Therefore, the organizing team currently finds difficulties to accomplish the initially planned Line of Work for 2024-2025. The organizing team therefore feel that it is time to launch a debate among the Geo/Stat community to clearly identify the specificities of the working group that justify its existence and to identify the activities that are worth to be undertaken.

The organizing team also questions about the performance of the working group and how activities could be better sustained.

Rationale

The April 2024 physical meeting in Lisbon has drawn up the action plans for 2024-2025.

By evaluating the previous webinars and participants' input, four main topics appeared for potential actions:

- education and broader capacity building;
- geospatial knowledge infrastructures,
- data trustworthiness and use cases;
- partnerships and coordination;

and among additional interests, the data integration analysis in matter of AI has been emphasized.

At the global perspective level, the UN-GGIM Climate Resilience Working Group asked the LoW DI and SDG to contribute to the collection of case studies in order to promote the role of geospatial information in climate resilience. The UN-GGIM Academic Network presented information about the strategic activities and the challenges in data trust. It concluded with the call to act and cooperate at future events.

Based on the break-out sessions, the working group has identified priorities and an action plan that include:

UNITED NATIONS COMMITTEE OF EXPERTS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT



- (1) to write an assessment report on the UN-GGIM: Europe data integration publications. The action has the intention to highlight the importance of past reports of the UN-GGIM: Europe working group on Data Integration with nowadays knowledge and by extracting all relevant lessons learned and recommendations.
- (2) In the perspective of a common geospatial/statistical ecosystem, which spans different data spaces, it becomes important to "understand other domains". The action is to collect potential use cases of data integration between geographical information and other data domains in the form of storyboard and based on the actualities. The example could/should be exemplary taken from climate change.

State of the Art of the LoW

Action 1: assessment report on the Relevance of DI Line of Work

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The report has been published and presented at the GISCO meeting in march 2025. It revealed that the UN-GGIM: Europe Line of Work on Data Integration provides important impetus for the further development of the European Geospatial Knowledge Infrastructure (EU-GKI) and the use of spatial data for political decision-making processes as well as the monitoring of the UN-SDGs.

The main recommendations have been: to promote national strategies and action plans to support data integration, e.g. with the governance of the UN-IGIF; to strengthen collaboration and knowledge sharing between NSI, NMCA and other relevant authorities and user communities; to develop and implement open data policies and clear licensing agreements for geospatial data; to invest in developing and implementing standards and methodologies for data integration; and to increase the capacity building in matter of data integration methods with the cooperation of universities and other associations.

Action 2: storyboards on potential data integration use case in matter of Climate Resilience

The investigation for providing potential use cases has been asked to the geo/statistical community with a low return so far. The reasons might be: no real interest, not their usual business or specificities, or this should have been also addressed to other communities dealing more specifically with Climate Resilience.

Another raising interest was to consider the security domain (in matter of civil emergency services and defence), for example, a use case aiming at conciliating wind turbine locations with aerial navigation.

Findings

Based on these statements, the organizing team would like to consider new approaches to the development of future activities and how these activities could be better supported. The conclusions are as follows:



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- (1) The LoW Data Integration provided a large number of documents, which the evaluation report considered to be very important. However, it is not clear how this has been perceived and integrated into the geo/stat community; and these documents (mainly aimed at the management level) appear to have had little impact there. Despite their publication on the UN-GGIM-Europe website, they are not sufficiently visible. How to better address the managerial level?
- (2) The assessment report highlights the ultimate recommendations in matter of data integration. What might be the role of the LoW in supporting or in contributing to the execution of (some of) these recommendations. If actions have to be taken, they have to be translated into SMART objectives and concrete results.
- (3) Well defined data integration processes and GKI are the basics for contributing to SDGs calculation and monitoring. Therefore, a better synergy and embedded lines of work should be set up between the LoW Data Integration and LoW SDG. This might be a win-win situation.
- (4) Data integration activities are not specific to Europe and similar work is being undertaken globally. The UN-GGIM-Europe LoW on Data Integration should be connected in some way with UN-GGIM's global activities in this area (such as UN-IAEG, GFGS, Climate Resilience Working Group), in order to contribute globally to the work being done.
- (5) The geospatial domain has the power to link knowledge across different thematic domains (common data spaces, data silos, ...¹), because of its fundamental nature. A linked knowledge domain enables reliable, quality-assessed, available, usable and integrable data. Our main focus would then be to progress on the study and in the establishment of a common knowledge base infrastructure; how data integration can serve that purpose and what are the already existing processes and methodologies. Probably that AI will get an impact in this as well.
- (6) It becomes obvious that an extension of data integration potentialities to other domains in terms of SDGs or GreenData4all is urgent and a key issue. How to pragmatically address data integration with other domains and how to gain interest within other communities for our activities.

¹ The notion "common data space" is mainly used in the European data infrastructure and the programs of the European Commission (e.g. GreenData4All, <u>https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13170-GreenData4All-updated-rules-on-geospatial-environmental-data-and-access-to-environmental-information_en</u>) and defines an inclusive ecosystem of data across different thematic domains.



(7) The LoW Data Integration may play an outstanding role in supporting the capacity building in terms of data integration methodology. This might be accomplished in cooperation with universities and other associations within the UN-Academic Network or the UN-Universities (https://unu.edu/). A more pragmatical approach by organising workshops or webinars should be preferred.

What next

The organizing team has launch a survey in order to collect the feedback of the UN-GGIM Data Integration LoW members to evaluate:

- if they are in line with the findings;
- what priority they would consider for the future activities of the WG DI; and
- how activities could be better sustained.

The outcomes of the survey will served as base for drafting the future line of work and action list, which will also be in line with the revised with the revised UN-GGIM: Europe strategy.