

Working Group “Data Integration”

**Item 14 – Status Activities according to the
Work Plan 2017 – 2020**



UN-GGIM: EUROPE

UNITED NATIONS INITIATIVE ON
GLOBAL GEOSPATIAL
INFORMATION MANAGEMENT



UN-GGIM: Europe – Work Plan 2017 - 2020

The following tasks were accepted by the UN-GGIM: Europe at its Plenary Session on 7-8 June 2017:

1. Draft a **policy outreach paper** to be prepared for UN-GGIM-9 on data integration topics and make use of the findings/recommendations of the deliverables B.1, B.2.1, B.2.2/2.3 and B.3.1

→ **task 1 / subgroup 1**

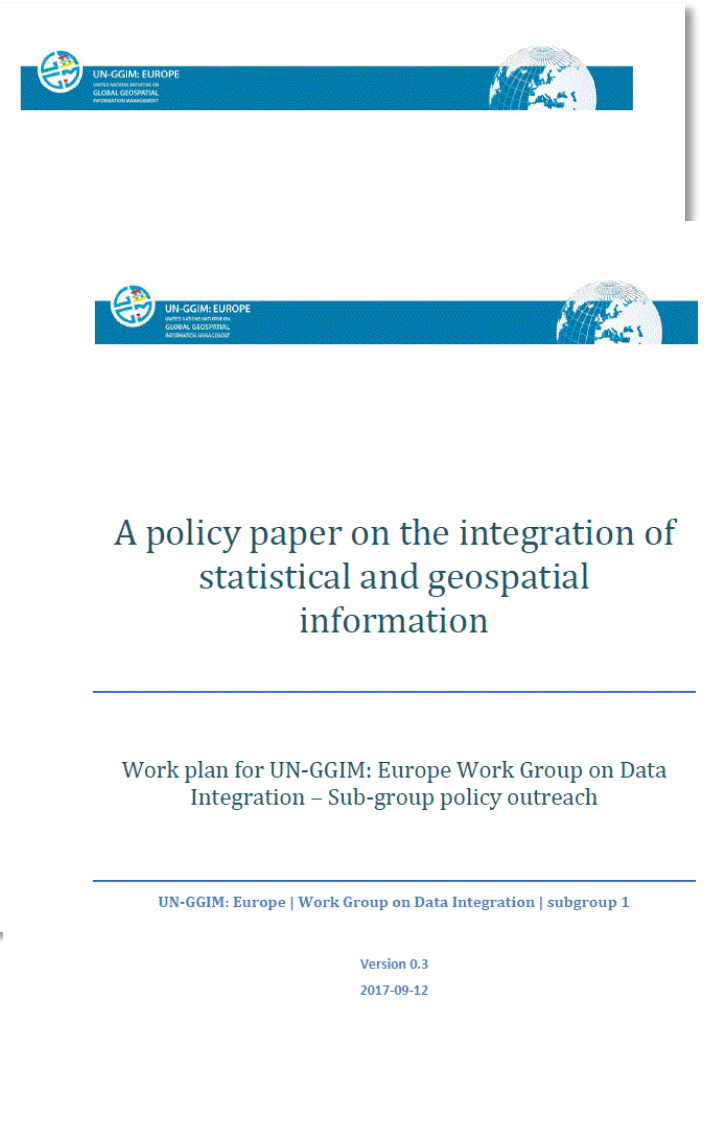
2. Analyse new **global, regional or national indicators** (e.g. focusing on “accessibility”) reflecting the European perspective (INSPIRE, Copernicus,...), reflecting “data integration” aspects and cross-cutting issues.

→ **task 2 / subgroup 2**



Task 1 – Policy Outreach Paper

- **First approach:** work plan aiming at a draft a resolution on the integration of statistical and geospatial information
- **Update:** develop a **policy outreach document** that outlines
 - the huge benefits of integrating geospatial information and thematic information for evidence based policy making, mainly in connection with monitoring and achieving the UN SDGs
 - the challenges and obstacles for achieving the vision of full integration of geospatial information with these other kinds of information
- **Main users:** senior managers in NSIs, NMCAs and ministries



Task 1 – “Leaflet” supporting the Policy Outreach Paper

Leaflet shall be addressed to policy makers who are not “geospatially related”.

The leaflet should attract policy makers and others and invite them to read more about it!



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When every second counts

. your immediate response is needed

.....

..... now

... making the difference...

... with the right information...



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Task 1 – Just another questionnaire to be completed?

QUESTIONNAIRE SUPPORTING THE POLICY PAPER

of the UN-GGIM: Europe Working Group on Data Integration

1 GOVERNANCE AND POLICY

1.1 Are statistics and geospatial information under the same ministry?

1.1.1 How often do you have consultations with your ministry at the highest level?

Once a month Every 2 - 3 month every 6 month Once a year Less than once a year According to demand

1.2 Do you have an agreement on cooperation between the NSI and NMCA in your country?

Legislation Memorandum of Understanding other

1.2.1 What is included in the agreement? What are the important topics?

1.2.2 How is knowledge exchange organized between the two agencies?

E-Mail Telephone Face-to-Face Meetings Web conferences other

1.2.3 How often do you exchange ideas with colleagues from the NSI/NMCA on data integration topics?

Once a week Every 2 - 3 weeks Once a month Every 2 - 3 months Less than 3 month According to demand

Aim and objectives:

- gain a comprehensive **overview** of the current situation and the main issues related to data integration in the European member states
- provide the information needed to identify and understand the **most important issues** and to propose **measures** that would help improve the situation.

Deadline: 31 August 2018



Task 1 – Next steps

- **Policy outreach paper**

- A **questionnaire** addressed to the UN-GGIM: Europe community on the main recommendations will be circulated on 8 June 2018 (deadline: 31 August 2018)

- The **key messages** of the policy outreach paper will be elaborated until September 2018

- The **recommendations** of the policy outreach paper will be elaborated and cross-checked with those of the European implementation guide for the Global Statistical and Geospatial Framework (GSGF: Europe) until September 2018

- **Leaflet**

- The draft of the leaflet will be further elaborated until September 2018



Task 2 – Gap Analysis of SDGs & EU indicators

Check and assess (1) methodology and (2) data availability:

- **Systematization of global “metadata”** for indicators and national practices, including tier I, II and III SDG indicators;
- **EU-SDG indicators** potentially benefiting from geospatial information;
- **additional national specific indicators** benefiting from geospatial information and its combination with statistical data, defined within the context of national SDG monitoring



future internal population growth and city growth resulting from migrations. They also need to accommodate new and thriving urban functions such as transportation routes, etc., as they expand.



Task 2 – Gap Analysis: Selection of indicators

Indicator		Tier
11.2.1	Proportion of population that has convenient access to public transport	II
11.3.1	Ratio of land consumption rate to population growth rate	II
11.7.1	Average share of the built-up area of cities that is open space for public use	III
15.1.1	Forest area as a proportion of total land area	I



Task 2 – Gap Analysis of SDGs

(A) Global metadata

1. Current reporting situation

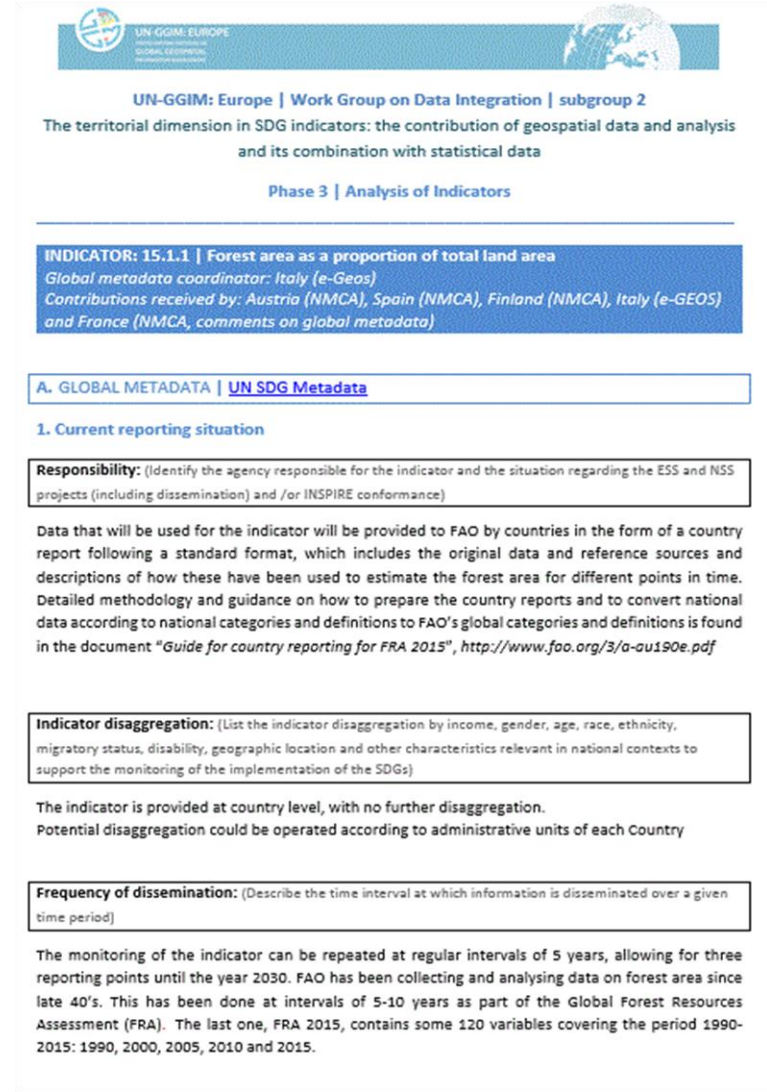
- ★ Responsibility
- ★ Indicator disaggregation
- ★ Frequency of dissemination
- ★ Timeliness
- ★ Data sources
- ★ Geospatial data analysis and integration
- ★ Data quality requirements
- ★ Current use of geospatial data for the indicator

2. Suggested Methodology

- ★ Gap analysis

3. Suggested geospatial data integration

- ★ Gap analysis
- ★ List of required geospatial data
- ★ Data quality requirements
- ★ Data availability/collection
- ★ Geospatial analysis and integration



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UN-GGIM: Europe | Work Group on Data Integration | subgroup 2
The territorial dimension in SDG indicators: the contribution of geospatial data and analysis and its combination with statistical data

Phase 3 | Analysis of Indicators

INDICATOR: 15.1.1 | Forest area as a proportion of total land area
Global metadata coordinator: Italy (e-Geos)
Contributions received by: Austria (NMCA), Spain (NMCA), Finland (NMCA), Italy (e-GEOS) and France (NMCA, comments on global metadata)

A. GLOBAL METADATA | [UN SDG Metadata](#)

1. Current reporting situation

Responsibility: (Identify the agency responsible for the indicator and the situation regarding the ESS and NSS projects (including dissemination) and /or INSPIRE conformance)

Data that will be used for the indicator will be provided to FAO by countries in the form of a country report following a standard format, which includes the original data and reference sources and descriptions of how these have been used to estimate the forest area for different points in time. Detailed methodology and guidance on how to prepare the country reports and to convert national data according to national categories and definitions to FAO's global categories and definitions is found in the document "Guide for country reporting for FRA 2015", <http://www.fao.org/3/a-au190e.pdf>

Indicator disaggregation: (List the indicator disaggregation by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts to support the monitoring of the implementation of the SDGs)

The indicator is provided at country level, with no further disaggregation.
Potential disaggregation could be operated according to administrative units of each Country

Frequency of dissemination: (Describe the time interval at which information is disseminated over a given time period)

The monitoring of the indicator can be repeated at regular intervals of 5 years, allowing for three reporting points until the year 2030. FAO has been collecting and analysing data on forest area since late 40's. This has been done at intervals of 5-10 years as part of the Global Forest Resources Assessment (FRA). The last one, FRA 2015, contains some 120 variables covering the period 1990-2015: 1990, 2000, 2005, 2010 and 2015.



Task 2 – Gap Analysis of the selected SDGs

(B) Current National Practice(s): e.g. 15.1.1 → AT, ES, IT, FI, SI, FR, DE

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B. CURRENT NATIONAL PRACTICE | Austria (NMCA)

1. Current reporting situation

Responsibility: (Identify the agency responsible for the indicator and the situat projects (including dissemination) and /or INSPIRE conformance)

The theme forest has different responsibilities in Austria:
(1) [the](https://bfw.ac.at/) ministry of environment maintains forest areas from a themati autonomous agency (<https://bfw.ac.at/>) and
(2) [the](http://www.bev.gv.at) ministry of economy with its federal office of metrology and sun use areas (and therefore the forest areas) for all administrative units, [cadastrg](http://www.bev.gv.at) (<http://www.bev.gv.at>).
This assessment focuses on (2) because it provides a precise area ca frequency (yearly).

Indicator disaggregation: (List the indicator disaggregation by income, gender migratory status, disability, geographic location and other characteristics relev support the monitoring of the implementation of the SDGs)

No further disaggregation of this indicator.
Data are available down to cadastral zones.

Frequency of dissemination: (Describe the time interval at which information time period)

Yearly (reporting the land use for the past year at the reference date 31.1

Timeliness: (Length of time between data availability and the event or phenom the average production time for each release of data)

Changes of the forest extend are recorded whenever parcel adaptations i are reported at the reference date.

Data sources: (List the data sources and themes or variables in use, including c resolution, positional accuracy, frequency and timeliness regarding the ESS and t conformance).

The dataset reporting forest areas is included in the product "Regionalinf free accessible product at the Austrian Federal Office of M http://www.bev.gv.at/portal/page?_pageid=713,26693568_dad=portal8

Geospatial data analysis and integration: (Describe spatial analysis method: computations, including regarding data integration)

Cadastral measurements are used to receive forest areas.

Data quality requirements: (List in general terms the requirements for the sources and th relevant parameters: [Resolution](#), [completeness](#), [logical consistency](#), [positional accuracy](#), [temp](#) List if certain [international standards are being followed](#), including [classifications/nomencla](#) should allow computing results to the needed level of resolution and disaggregation). Please the [EURO-SDMX Metadata Structure \(ESMS\) 2.0](#).

The dataset for forest areas requires high temporal accuracy because administrative change.
Definitions for forest areas are very important because any calculated area for the fr with its demarcation.
The definition given in the metadata concepts (<https://unstats.un.org/sdgs/metadata/files/Metadata-15-01-01.pdf>) are a good sta it is still open how to deal with legally defined forest areas that may not be observec sensing - or non-legally defined forest areas (forest observable in OI but legally not c

Current use of geospatial data for the indicator: (Describe the current use of geospatia suggested by the existing metadata – the "as-is" situation)

At the moment the product regional information describes land use areas within the a thematic description, which means that no geometric representation exists.

2. Suggested Methodology

GAP analysis: (Describe what changes in use of [applied methods](#) are needed to go from th suggested/current procedure for monitoring the indicator, to a future procedure which bettr reporting requirements - going from the "as-is" situation in the present metadata proposa to situation)

The thematic description of forest areas derived from [cadastrg](#) seems to be sufficient The main problem is the change of reference units or changes within the [themat](#) which is needed for temporal comparison.
A geometric representation could help in more specific analysis, but also requires a structuring of these polygons...maybe an aggregation to statistical grids.

3. Suggested geospatial data integration

GAP analysis: (Describe what changes in use of [data](#) needed to go from the [suggested/curr](#) monitoring the indicator, to a future procedure which better fulfils the reporting requiremen "as-is" situation in the present metadata proposal to a "to-be" situation)

The actual situation should be sufficient to monitor this indicator.

List required geospatial data: (Develop a list from the GAP analysis, which lists the geospatial data sources and themes which are required to support the to-be situation, including INSPIRE conformance)

INSPIRE conformance will call for a geometric dimension, which does not exist in this dataset.

Data quality requirements: (List in general terms the requirements for the suggested sources and themes with relevant parameters: Resolution, completeness, logical consistency, positional accuracy, temporal accuracy etc. List if certain international standards should be followed including classifications/nomenclatures. Data quality should allow computing results to the needed level of resolution and disaggregation). Please take into account the [EURO-SDMX Metadata Structure \(ESMS\) 2.0](#).

Data availability: (List the data availability for the suggested sources and themes or variables: 1) Geographically: national/regional/global (as well as comparability across countries), 2) Source: Accessible through services or download, 3) Commercial/legally: license conditions - are data free or are there restriction on use; 4) Timeliness; 5) Frequency of dissemination)

The product regional information is available at http://www.bev.gv.at/pls/portal/docs/PAGE/BEV_PORTAL_CONTENT_ALLGEMEIN/0200_PRODUKTE_UNENTGELTICHE_PRODUKTE_DES_BEV/Regionalinformation.zip
This dataset is available as download product.
The data are free according to paragraph 2.2.2.e of terms of use (<http://www.bev.gv.at/pls/portal/url/ITEM/88AB1D338625A5D0E040010A83211FDB>).
The dataset is available yearly at the reference data 31.12.YYYY

Data collection: (Describe how the geospatial data for the indicator can be collected/made available, and issues to overcome – are there many sources to collect from, do they need to be integrated and normalized etc.)

The data are available as CSV.

Geospatial data analysis and integration: (Describe which analysis, procedures and computations are needed to provide the results needed to support the reporting requirements - "to-be" situation)




Task 2 – Gap Analysis of the selected SDGs

(C) Brief discussion papers


- Summary of the gap analysis
- Recommendations on how to deal with common issues in European members states

(D) Final Report

- Findings of the gap analysis, the brief discussion papers, national monitoring examples and unsolved issues will be compiled



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UN-GGIM: Europe | Work Group on Data Integration | subgroup 2

The territorial dimension in SDG indicators: the contribution of geospatial data and analysis and its combination with statistical data

INDICATOR: 15.1.1 | Forest area as proportion of total land area
Global metadata coordinator: Italy (e-Geos)
Contributions received by: Austria (NMCA), Finland (NMCA) Spain (NMCA)

Brief discussion

This indicator is categorized under Tier I, meaning the indicator is conceptually clear, has an internationally established methodology and standards are available, and data are regularly produced by Countries for at least 50% of Countries and population in every region where the indicator is relevant. It measures the relative presence of forest in a Country, and is based on two components:

- the forest area, to be computed according to FAO definition
- the total land area, to be computed by excluding inland waters such as rivers and lakes

At the **global level**, FAO can properly support the reporting for this indicator, at least for the computation of forestry area. In **fact** FAO has been collecting and analysing data on forest area, as part of the Global Forest Resources Assessment (FRA), since late 40's, and today the collection frequency is 5 years since 2000. The FRA is based on two primary sources of data:

- Country Reports prepared by National Correspondents
- Remote Sensing analysis that is conducted by FAO together with national focal points and regional partners.

All data are provided to FAO by Country in the form of a Country Report following a standard format, which includes the original data and reference sources and descriptions of how these have been used to estimate the forest area. The only issues that needs to be addressed for a proper usage of FAO workflow for the 15.1.1 indicator computation are:













- data adopted by single Countries for the provision of information to FAO could foresee more than five years for their updating, therefore a five years release of the indicator is not possible everywhere
- the collection strategy, valid at Country level and mostly based on statistical sampling, do not always allow a proper disaggregation of the indicator over smaller units

At the **national level**, the analysis of the national experience of WG members on this indicator has pointed out that:

- forestry information is actually collected by applying statistical procedures without a geometric representation, or by using remote sensing based techniques
- **forest** / no-forest need to be very clearly defined. According to the FAO definitions, Forest is defined as: "land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10 percent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agricultural or urban land use". More detailed FAO definition covers specific situation (i.e.: It also includes areas that are temporarily unstocked due to clear-cutting as part of a forest management practice or natural disasters, and



Task 2 – Gap Analysis of SDGs – “Swedish classification model”

Indicator		Tier	Global	France	Sweden
11.2.1	Proportion of population that has convenient access to public transport	II			
11.3.1	Ratio of land consumption rate to population growth rate	II			
11.7.1	Average share of the built-up area of cities that is open space for public use	III			
15.1.1	Forest area as a proportion of total land area	I			

- **Green**- possible to report or already being reported
- **Orange** – possible to develop: data integration needed or change in surveys ;
- **Red** – very difficult to report, no current survey, no available method
- **Grey** – not relevant for country / global data enough.



Task 2 – Next steps

- Any additional input on **national practices** is desired until June 2018!
- **Consolidation of the gap analysis** be ready until August 2018
- Report assessment for your country based on the **Swedish classification model!**
- The first draft of the **Final Report** will be compiled until October/November 2018



Contribution to the IAEG SDG WG GI

Short list of "geospatial" indicators

The IAEG SDG WG GI has selected a list of 15 indicators (5 tier I, 3 tier II, 7 tier III):

Shortlist

results of the analysis of the Global Indicator Framework with a "geographic location" lens

Table A:

List of Indicators where geospatial information has a direct contribution

Table B:

List of additional Indicators where geospatial information has a significant/supporting contribution.

Table A (annotated)

List of Indicators where geospatial information has a direct contribution

Goal	Target	Indicator	Tier	
Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture (Reviewed in depth by HLPF in 2017)	2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	2.4.1 Proportion of agricultural area under productive and sustainable agriculture	Tier III (FAO & UNEP)	(1)
Goal 6 Ensure availability and sustainable management of water and sanitation for all (Review in depth by HLPF in 2018)	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	6.3.2 Proportion of bodies of water with good ambient water quality	Tier III (UNEP & UN-Water)	(2)
	6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation	Tier II (UNESCO -UIS/ UNECE & IUCN)	(3)
	6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.6.1 Change in the extent of water-related ecosystems over time	Tier III (UNEP & UN-Water, IUCN, Ramsar)	(4)

<https://unstats.un.org/sdgs/iaeg-sdgs/>

Cross-cutting issues:

- Task on **disaggregation**, including urban/rural.
- Task on **alternative data sources**, including crowd sourced data and VGI.
- Task on **national vs. global data**.

Contribution by UN-GGIM: Europe:

- Survey and evaluation by the **WG on Core Data** based on use cases for geospatial data needed for the SDG monitoring provided in June 2017
- Findings of **WG Data Integration**, Task 2 – Analysis of specific indicators 11.2.1, 11.3.1, 11.7.1 and 15.1.1 provided in December 2017



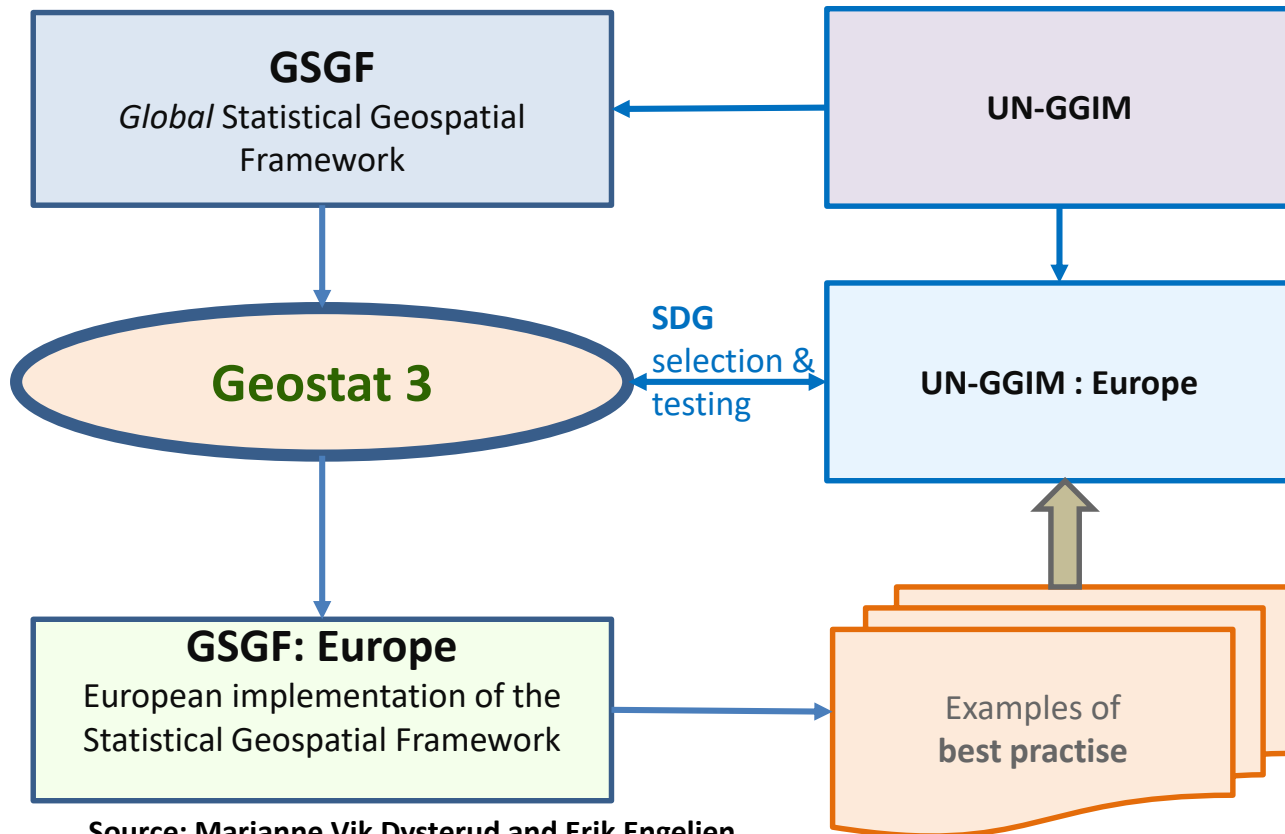
Contribution to the GEOSTAT-3 project

Objective: Project funded by Eurostat to develop a European version of the GSGF and to test SDG indicators

- **GEOSTAT-3 Work Package 1:** Contribute to the improvement of the **Global Statistical and Geospatial Framework (GSGF)** and – particularly – the development of a European version of it
- **GEOSTAT-3 Work Package 2:** **Test SDGs** selected by WG on Data Integration
 - **11.2.1, 11.3.1 and 11.7.1** have been selected for testing
 - **The gap analysis material will be used as rationale**



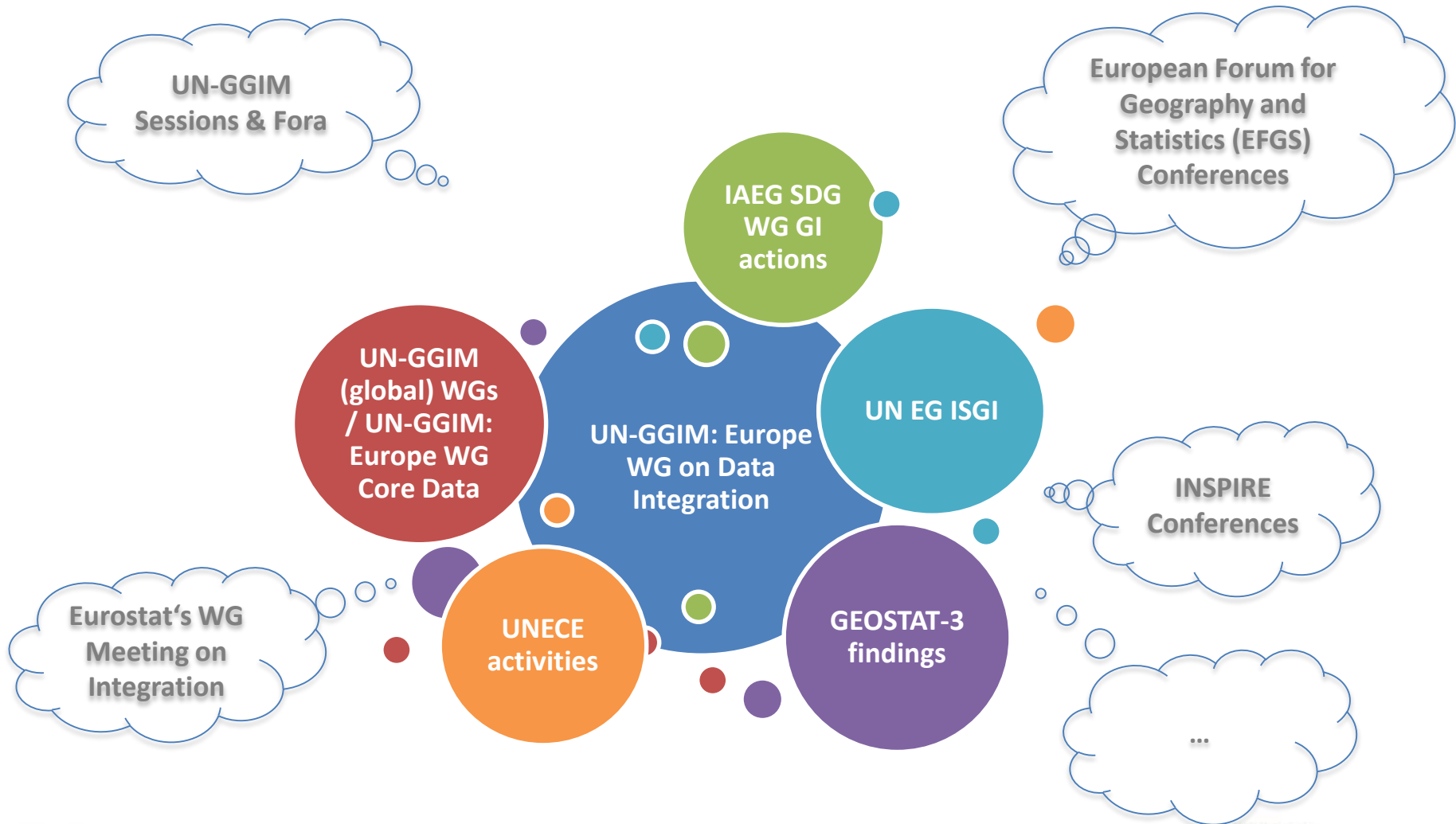
Contribution to the GEOSTAT-3 project – in the whole picture



Source: Marianne Vik Dysterud and Erik Engelién



The main communication platforms for the Working Group...



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Questions? Comments? Proposals?



Source: AppleOne Blog

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