Copernicus Reference Data : Proposal for Coordinated Actions with Member States

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Copernicus In Situ Component

Copernicus In-situ component shall provide coordinated access to in-situ data including reference data as needed by the operational Copernicus services.

Regulation No 377/2014 of the European Parliament and of the Council:

> *..the provision of the Copernicus services "shall take into account the principles of subsidiarity and proportionality, be cost-effective and decentralised where appropriate, integrating at European level existing […] reference data […] in Member States, thereby* ***avoiding duplication****.* ***Procurement of new data that duplicate existing sources shall be avoided****, unless the use of existing or upgradable data sets is not technically feasible, cost-effective or possible in a timely manner."*

But:

Several actions related to Copernicus In-situ **duplicate, coexist and compete with national reference data**, both publicly funded

(e.g. EU-DEM and EU-HYDRO)

Existing Initiatives dealing with Reference Data

Interoperability

Sustainable Development Goals

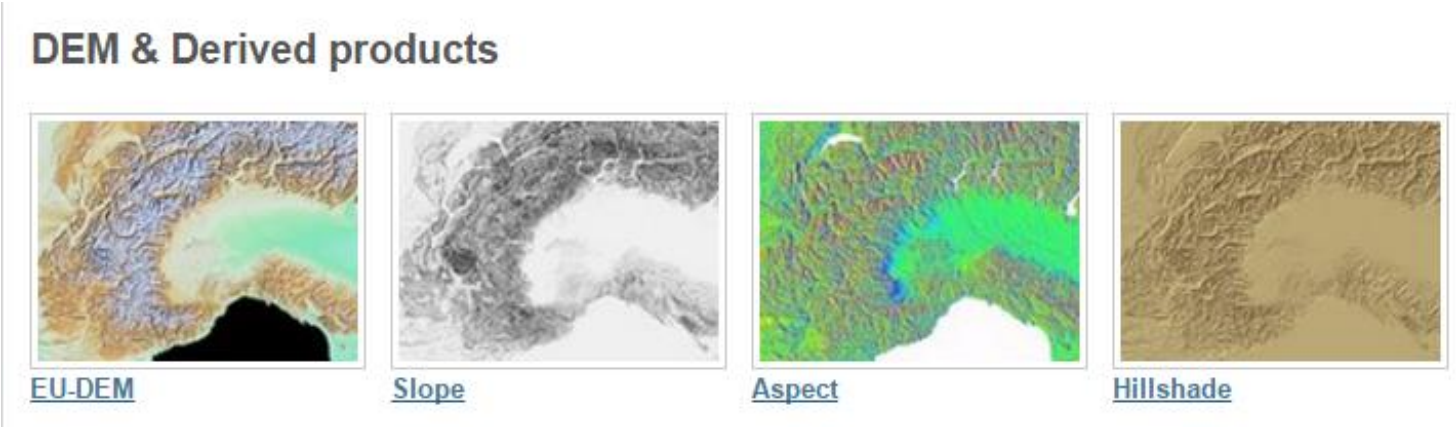
European GRI Services

UN-GGIM
UNITED NATIONS SECRETARIAT
GLOBAL GEOSPATIAL
ON MANAGEMENT

Copernicus Initiatives dealing with Reference Data

EU-DEM: Digital Elevation Model over Europe from the GMES Reference Data Access project (GMES RDA)

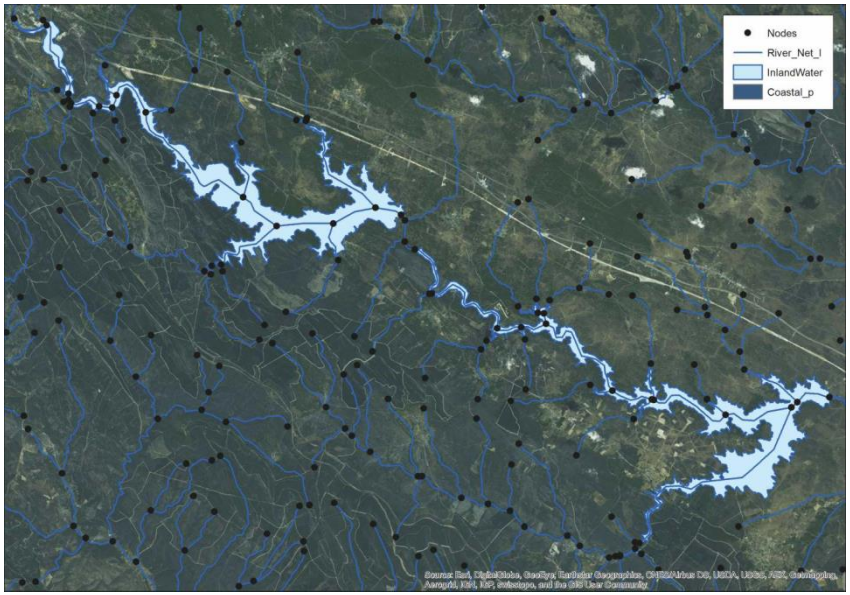
- Digital Surface Model (DSM) with elevations captured at 1 arc second postings (2.78E-4 degrees) or about every 30 metre
- Hybrid product based on SRTM and ASTER GDEM data

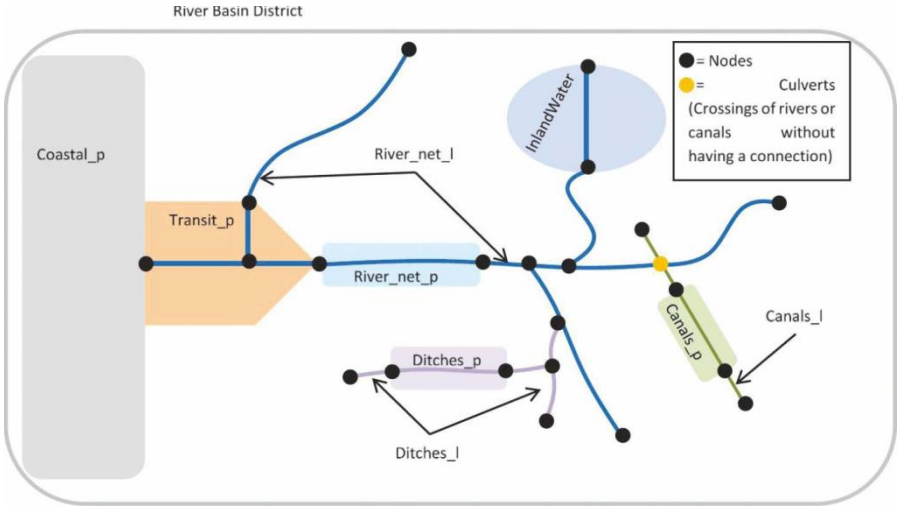


Copernicus Initiatives dealing with Reference Data

EU-HYDRO dataset (GMES RDA): hydrological network over Europe

- Based on classification of Image 2006and for all EEA39 countries provides a river network and a drainage model with catchments and drainage lines (derived from EU-DEM)
- Drainage Network topology values according to Strahler, Horton, Shreve and Hack standard ordering systems & based on Topological dimension of the network





Current situation:

EU-DEM or EU-HYDRO: technical specifications were only made public by Public Calls →

no previous internal consultation with Member States

Duplication:

- lower data quality in the case of Copernicus data
- inconsistencies between national and Copernicus data

Several Member States have exposed:

- the risks of the approach adopted
- their explicit will to collaborate in the generation of Copernicus services in a bottom up approach, using national official data, appropriately generalized and harmonized , for the generation of Copernicus services.

Proposed approach for coordinating Copernicus & MS

Stablish a **Task Force**, composed of experts from EEA, voluntary Member States, and other relevant experts

Objectives:

1. Set a recommendation of detailed specifications of homogeneous reference data meeting the requirements from Copernicus services, including themes, features, attributes, quality, generalization, edge-matching, etc.
2. In a second step, discuss about a coordinated bottom-up production process and a possible financial support for producing the data by derivation from national data and for supplying it to Copernicus.

Proposed approach for coordinating Copernicus & MS

ROLES:

- COPERNICUS needs ON TIME (→ COPERNICUS requirements)
- Member States → Production GRD/GRI/FDS
- EuroGeographics → COPERNICUS requirements
  Harmonization processes
  Platform for integration of MS productions
  Production Gaps

Proposed approach for coordinating Copernicus & MS

Proposed timescale

It is proposed that this approach achieves consistency between European and national reference data in 2020:

- Task Force working in 2016 and 2017
- Proof of Concept (some voluntary MS): 2017-2018
- Implementation (all voluntary MMS):2018 -2019

Financial support: from Copernicus, useful to:

- Coordinate the Task Force
- Support the Task Force meetings
- Support implementing the Proof of Concept