Topology of the European Network of Earth Observation Networks and the need for an European Network of Networks

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ConnectinGEO (Coordinating an Observation Network of Networks EnCompassing saTellite and IN-situ to fill the Gaps in European Observations” is an H2020 Coordination and Support Action with the primary goal of linking existing Earth Observation networks with science and technology (S&T) communities, the industry sector, the Group on Earth Observations (GEO), and Copernicus. The project will end in February 2017.

ConnectinGEO will initiate a European Network of Earth Observation Networks (ENEON) that will encompass space-based, airborne and in-situ observations networks. ENEON will be composed of project partners representing thematic observation networks along with the GEOSS Science and Technology Stakeholder Network, GEO Communities of Practices, Copernicus services, Sentinel missions and in-situ support data representatives, representatives of the European space-based, airborne and in-situ observations networks.

This communication presents the complex panorama of Earth Observations Networks in Europe. The list of networks is classified by discipline, variables, geospatial scope, etc. We also capture the membership and relations with other networks and umbrella organizations like GEO. The result is a complex interrelation between networks that can not be clearly expressed in a flat list.

Technically the networks can be represented as nodes with relations between them as lines connecting the nodes in a graph. We have chosen RDF as a language and an AllegroGraph 3.3 triple store that is visualized in several ways using for example Gruff 5.7.

Our final aim is to identify gaps in the EO Networks and justify the need for a more structured coordination between them.