ConnectinGEO is a Coordinate and Support Action of the Horizon2020 program aiming to link existing Earth Observation networks with science, private sector and with GEOSS and Copernicus stakeholders. Main objectives are to enable ENEON and to provide the EC with a gap analysis among existing EO networks prioritizing the Sustainable Development Goals and the Essential Variables.

176 gaps identified coming from 5 threads:

- **Top-Down Thread 1 (TDT1).** Identification of a collection of observation requirements and specifications from generic goals for sustainability as expressed in the GEOSS Strategic Targets, the SDGs, and the adherence to the planetary boundaries.
- **Top-Down Thread 2 (TDT2).** Incorporation of material from international programs such as Future Earth, Belmont Forum, the Research Data Alliance and community assessments of socio-economic benefits of Earth observations.
- **Bottom-Up Thread 1 (BUT1).** A consultation process in the current EO networks, consisting of collaboration platforms, surveys and discussions at workshops and even involvement of citizen science.
- **Bottom-Up Thread 2 (BUT2).** A careful analysis of the observations and measurements that are currently in GEOSS Discovery and Access Broker complemented by other means (e.g. scientific literature).
- **Bottom-Up Thread 3 (BUT3).** The realization of a series of real industry-driven challenges to assess the problems and gaps emerging during the creation of business opportunities.

**Preliminary results on EO gap analysis**

**Gaps Recognition Process**

- **Map of EV on all domains**
  - EVs current status in different communities and way to move forward [D2.2]
  - Proposal of EVs for selected themes [D2.3]
- **Map of SDG related to gaps**
  - Report on observations, measurements and gaps in observation systems reported by the communities [D3.4]

**Other important results**

- **Map of EV on all domains**
  - EVs current status in different communities and way to move forward [D2.2]
  - Proposal of EVs for selected themes [D2.3]
- **Map of SDG related to gaps**
  - Report on observations, measurements and gaps in observation systems reported by the communities [D3.4]

**Call for Paper:** Special issue on 'Environmental and socio-economic methodologies and solutions towards integrated Essential Variable definition and generation'