

PREMISE

DEVELOPMENT OF A TRANSNATIONAL ENVIRONMENTAL OBSERVATION SYSTEM IN SUPPORT OF EUROPEAN & INTERNATIONAL POLICIES THROUGH THE INTEGRATION OF REAL-TIME MONITORING DATA FROM VARIOUS PLATFORMS, MODELLING TOOLS AND ADVANCED GLOBAL CYBER-INFRASTRUCTURE FOR DATA SHARING AND INTEROPERABILITY.

CONTEXT

IGOSP will support the achievement of the goals and objectives of Strand-3 of the **ERA-PLANET project** (www.era-planet.eu). The project has strong links with activities in the GEOSS Work Programme, specifically the GEO (Group on Earth Observations) Flagship - Global Observation System for Mercury (GOS⁴M - www.gos4m.org) - and the GEO Initiative - Global Observation System for Persistent Organic Pollutants.

GOS⁴M and GOS⁴POPs

- increase the availability and quality of Earth Observation data for the tracking of persistent pollutants;
- harmonize metadata production, archiving and data sharing from monitoring networks;
- develop advanced services that Parties may use to support the implementation of Minamata Convention on mercury and the Stockholm Convention on POPs.

IGOSP thus bridges and strengthens the European, national and regional R&I programmes in the domain of persistent pollutants, in support of international conventions.

PLATFORM

PLATFORM THE PROJECT'S MAIN INTERFACE WITH THE PUBLIC, POLICY MAKERS AND THE SCIENTIFIC COMMUNITY WILL BE THE **IGOSP PLATFORM**. WHILE THE PROJECT ESSENTIALLY AIMS TO STRENGTHEN AND SUPPORT EXISTING NETWORKS / INITIATIVES / PROGRAMMES, THE PLATFORM WILL PROVIDE A STEP-CHANGE IN PERSISTENT POLLUTANT DATA UTILISATION, ENHANCEMENT AND EXPLOITATION.

The **Platform** will provide:

Access – observational data, ancillary parameters (chemical, meteo, climate);

Tools – geospatial selection, temporal selection, category selection (coast, altitude, maritime);

Workflow applications – trend (spatio-temporal) analysis, plots / maps / advanced visualisation, comparison of dataset characteristics (EMD, superstatistics).

Which in turn facilitate:

Investigations – links, comparable trends, relationships in datasets;

Scenario design – what if? (emissions / climate / socio-economic change);

Instigation of External Tasks – modelling, the targeting of sites / campaigns / periods / atmospheric parameters.

Resulting in: **Insights Outputs Products** thereby promoting the progression from: **Observation to Information to Knowledge**.

IMPACT

- Reinforcement of ERA leadership within GEO in the framework of its Strategic Plan (2016 - 2025);
- Coordination and where possible integration of major European and Worldwide research and existing monitoring networks on mercury observation as a contribution to GEOSS and Copernicus;
- Maximisation of value and benefits of EO investments through the improvement of shared architectural components and related information infrastructure as well as the fostering of open and unrestricted data sharing;
- Development of sustainable and interoperable observational, modelling, data assimilation and prediction systems;
- Fostering a wider exploitation and use of EO derived information on persistent pollutants for the benefit of citizen's daily life (i.e., air quality, marine ecosystems, health) and support for the achievement of key Sustainable Development Goals (SDGs) of the 2030 Agenda;
- Support an effective implementation of Conventions;
- Promote collaboration between various POPs monitoring programs in the EU in particular national programs contributing to EMEP, GAW and the Stockholm Convention.

