

29 September - 01 October 2026 ESA-ESRIN | Frascati | Italy

Environmental Crimes joint workshop with ESA-JRC- UNODC

Opening remarks Increasing uptake of earth observation products

COMPETITIVENESS COMPASS



Simplification – burden reduction

- **Legislative simplification (not deregulation)**
- **More streamlined reporting** by Member States, reduce administrative burden, and facilitate more timely knowledge for policy at EU/country levels
- **Monitoring opportunities**, **increase uptake of Copernicus services**; mainstream new monitoring methods emerging from EU research and innovation.
- **Data management**, using new technologies and analytical methods to ensure harmonised, high-quality data for integrated, multi-scalar analytical services for policy and citizens
- **Capacity building**: Investments that enhance digital skills and capabilities as well as exchanges that strengthen links between national and EU knowledge systems.



Better policy implementation

- Simplification by supporting environmental policy implementation through digital tools/enablers.
- The fourth Environmental Implementation Review (EIR - 2025) highlighted shortcomings in the implementation of EU environmental laws and estimated that the annual cost of failing to implement EU environmental legislation amounts to €180 billion.
- Data and insights are indeed essential to monitor progress on implementation, **improve compliance**, evaluate policy effectiveness and inform decisions on new policies. The exponential growth of digital technologies has the potential to transform the speed of delivery of information for policy and the frequency and accessibility of insights for decision makers navigating in a fast-changing world.
- **Satellites, sensors, drones and AI can deliver more timely data.**
- IT infrastructure can link otherwise fragmented, siloed data and insights across policy domains. Digital map services can enable data and insights to be distributed geographically so that decision makers can differentiate responses between countries, regions and cities.



Increased Uptake of EO in EU Policy

11 references to Copernicus in EU Legislation **2015-2020**

90+ reference to Copernicus in EU Legislation **2021-Date**

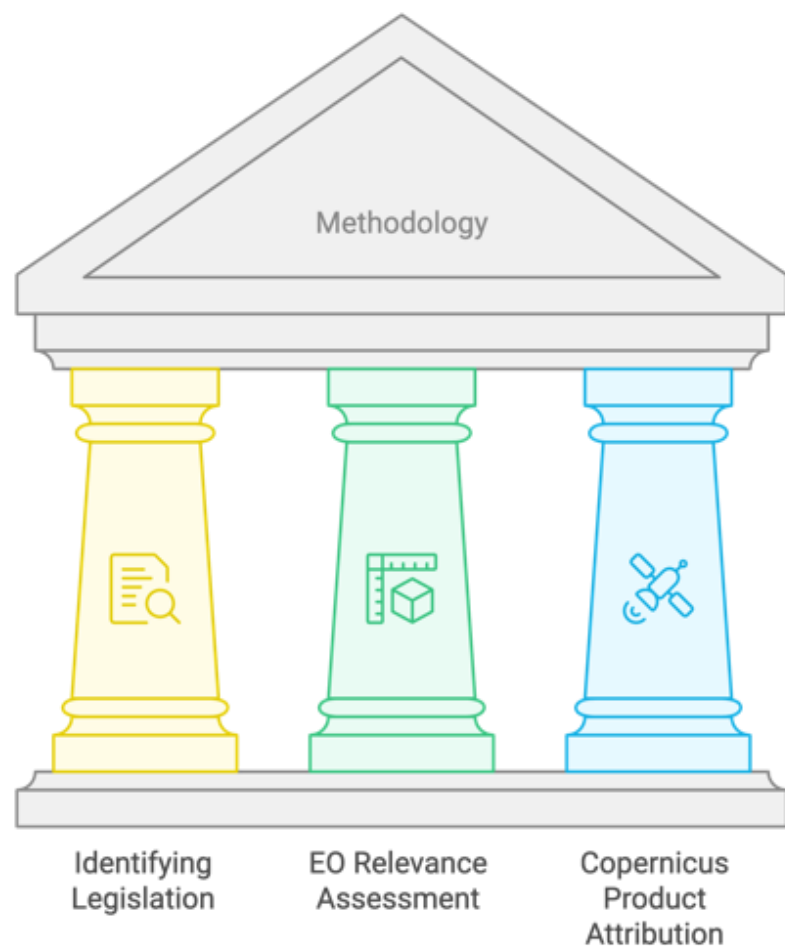


Why?

- Programme and Services reached maturity
- Twin Green and Digital transition
- Awareness increased in policy DGs

- European Water Resilience Strategy
- European Ocean Pact
- Soil Monitoring Law
- Bioeconomy Strategy

EO & Reporting Burden: Top-down and Bottom-up



Assesment of 5000 pieces of EU legislation

KCEO Survey: Copernicus 4 EC, update 2026

DG	Unit	Reporting Requirements	EO-derived Data for Policy Reporting
ENV	ENV.C.1	Yes	Emissions inventory (WFD/Industrial Emissions Directive)
	ENV.C.2	Yes	Air emission monitoring (Sulphur Directive), water emissions (MSFD)
	ENV.D.1	Yes	Protected forest habitats (NRL), indicators for FAO
	ENV.C.1	Yes	Emissions inventory (WFD/Industrial Emissions Directive)
	ENV.C.1	Yes	-
	ENV.C.2	Yes	Water quality (WFD, MSFD)
	ENV.C.2	Yes	Coastal water data (MSFD, Bathing water, WFD parameters)
	ENV.D.1	Yes	Artificial land (LULUCF), 8th Environmental Action Programme, SDG monitoring
	ENV.D.2	Yes	LULUCF land use, protected/restored areas, habitat condition, ecosystem services (MAES)

EO Opportunities



1. Efficient sampling, where EO can pinpoint hotspots for targeted ground-based analysis.
2. The "measure once, use many times" paradigm, where a reference product can serve multiple pieces of legislation for different indicators.
3. EO for compliance/enforcement.



EO for compliance/enforcement

Compliance Assurance (CA) refers to the process and mechanisms designed to ensure adherence to EU laws, regulations, and policies by individuals, organizations, and Member States.

Compliance Assurance comprises three components:

- **Compliance Promotion:** Focuses on raising awareness, educating stakeholders, offering technical assistance, and engaging in consultations to promote understanding and voluntary compliance.
- **Compliance Monitoring:** Involves data collection, inspections, audits, risk assessment, and reporting to ensure adherence to EU rules and to identify areas of concern.
- **Compliance Enforcement:** Comprises various measures such as infringement procedures, financial penalties, safeguards, sanctions, cooperative dialogue, and action plans to rectify non-compliance.

Together the three components of Compliance Assurance work to ensure the effective implementation of EU laws, safeguarding the integrity of the EU's single market and citizens' rights.



EO for compliance/enforcement

European Commission

Joint Research Centre

- Deep Dive on the use of EO for compliance assurance in multiple policies, including environment.
- Enables the Commission to use EO to assure compliance with EU environmental law and, where needed, enforce it.
- Capacity Building on using geospatial intelligence in environmental compliance assurance.
- Close cooperation with the 4 Networks of environmental compliance assurance practitioners in Europe.



EO for compliance/enforcement

European Commission

➤ **Copernicus SESA:**

Since 2025, DG ENV has been Requesting Party for the area of environmental compliance, more specifically environmental crime.

The Requesting Party coordinates the activation of the service in its area of Union action and assesses the political and legal feasibility of the request on behalf of the Commission.

Detection of environmental offenses and/or environmental crimes occurring on the EU Member States territories or outside (2 operational frames).

➤ **Earth Observation Governmental Service (EOGS):**

Establishing a sovereign European governmental Earth observation capability (from 2028).



Thank you



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