

ESA – Environmental crimes

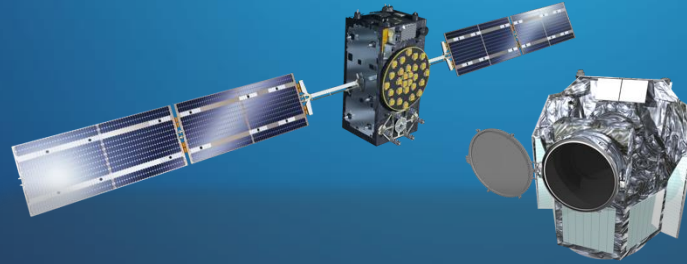
Copernicus Thematic workshop: compliance assurance
EO current and future products and services – Research contribution

Michela Corvino
Earth Observation Security Applications Engineer

What is the European Space Agency?



Make Space
for Europe



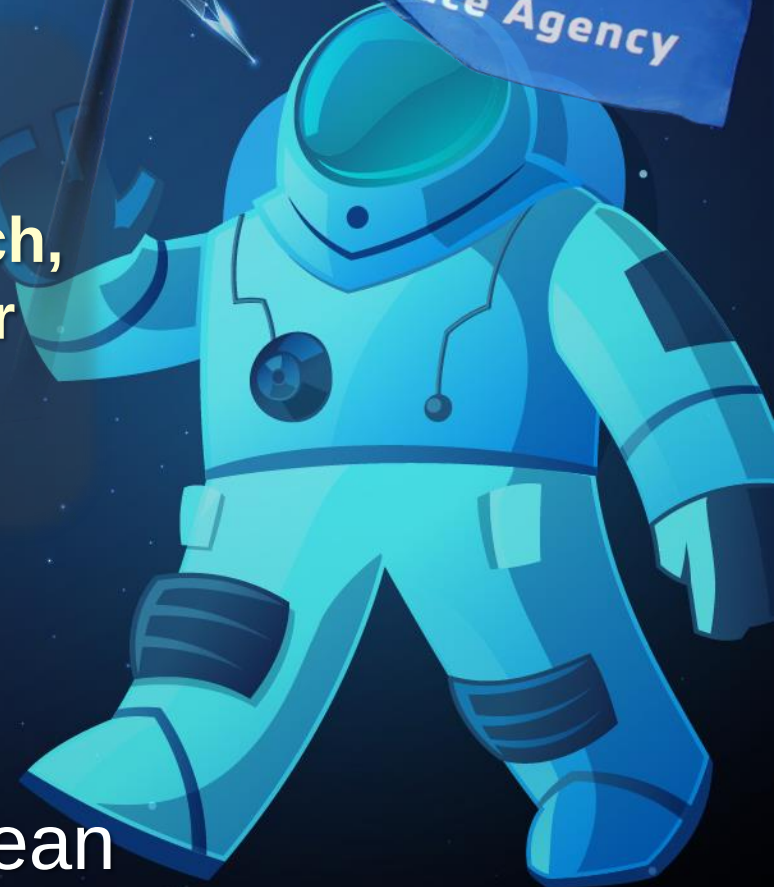
5 500+
ESA Workforce

Promoting cooperation among
European States in space research,
technology and applications, for
exclusively peaceful purposes

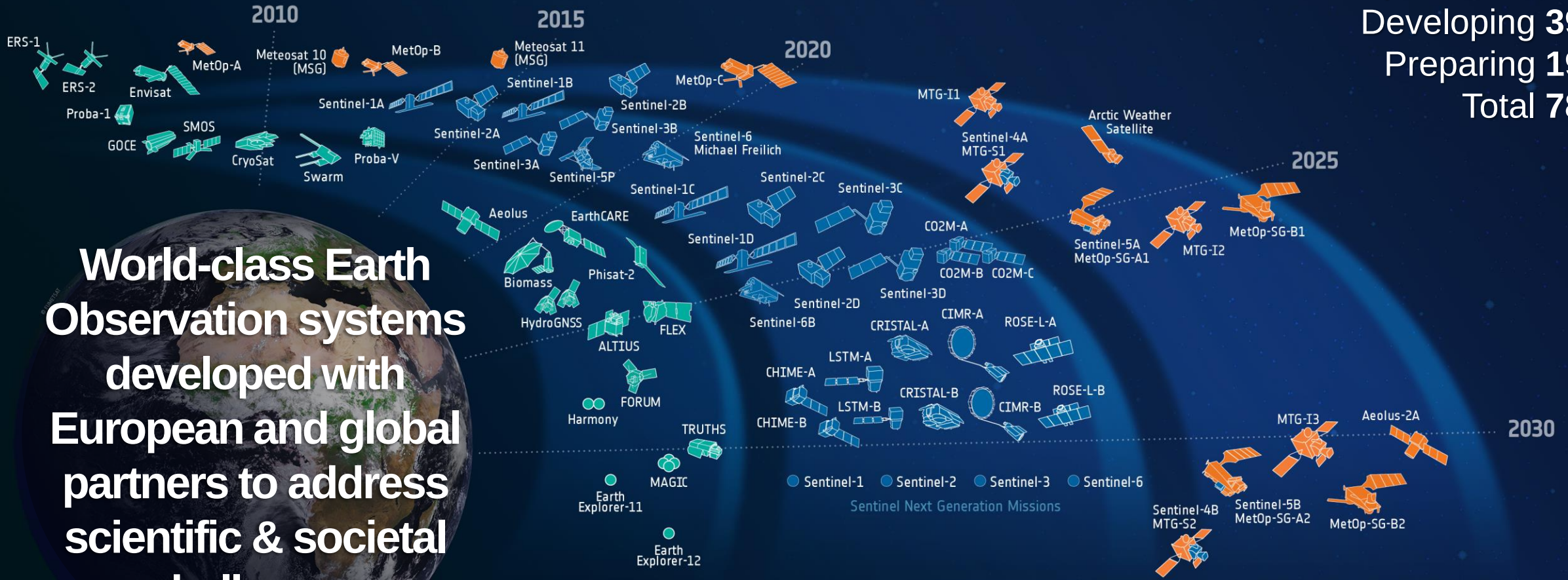
22
Member States

2024 Budget

€ 7.79 billion =
10.5 per European



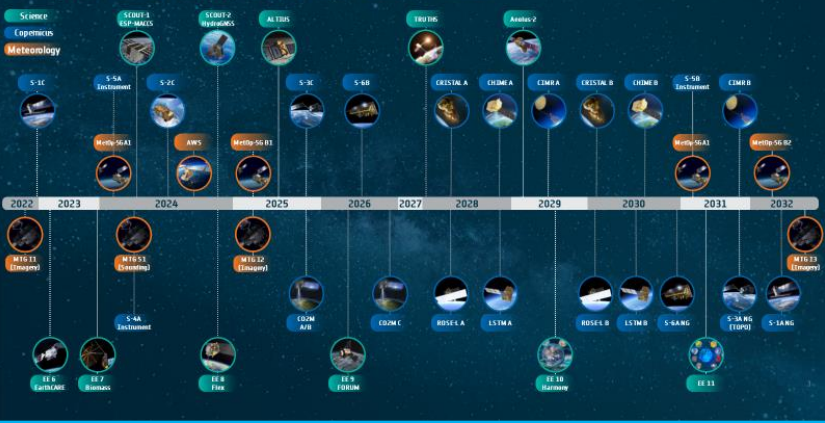
Total 78



**World-class Earth
Observation systems
developed with
European and global
partners to address
scientific & societal
challenges**



Cal/Val & Data Distribution



Commercialisation

Climate Change

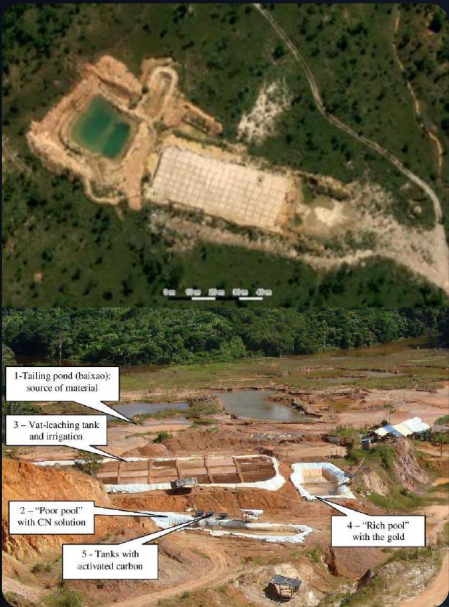
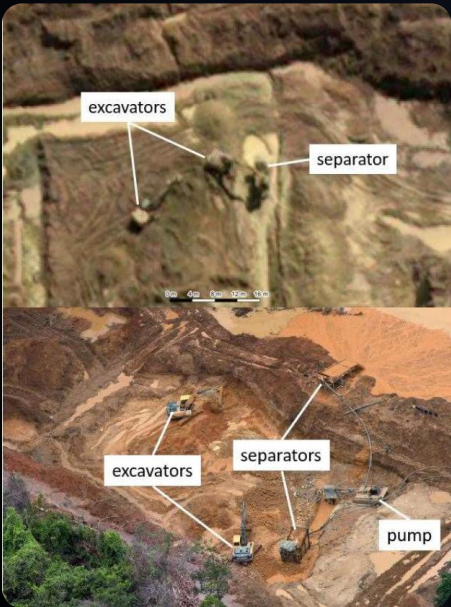
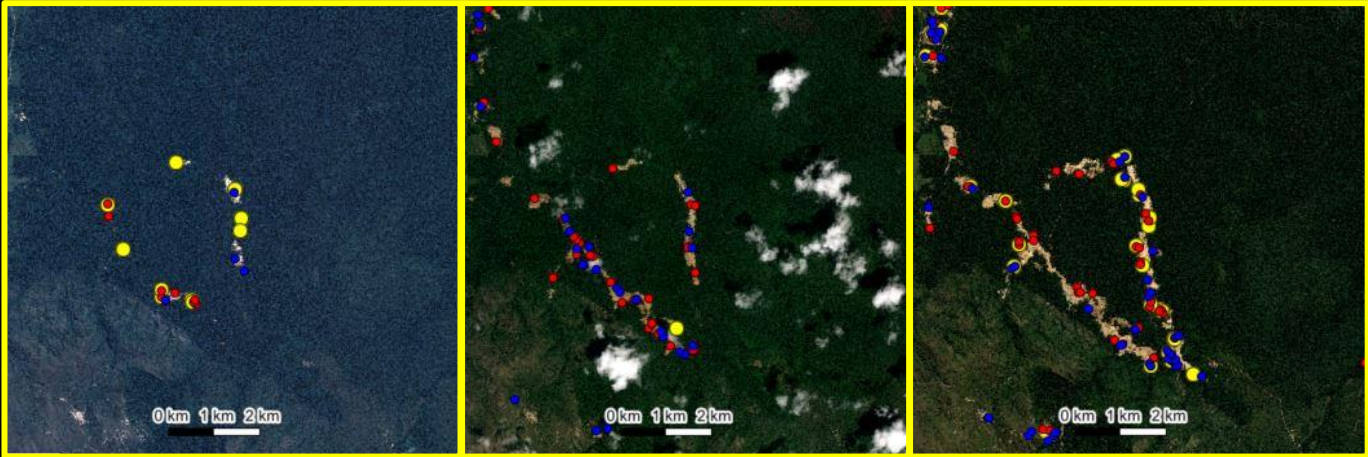


InCubed

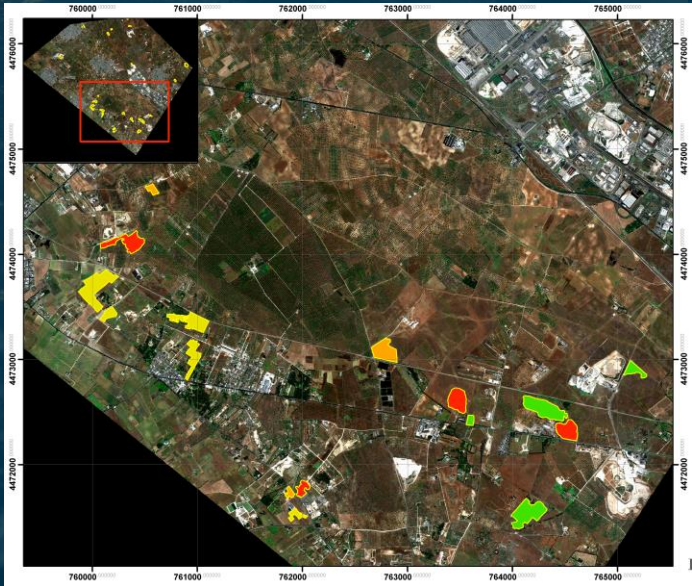
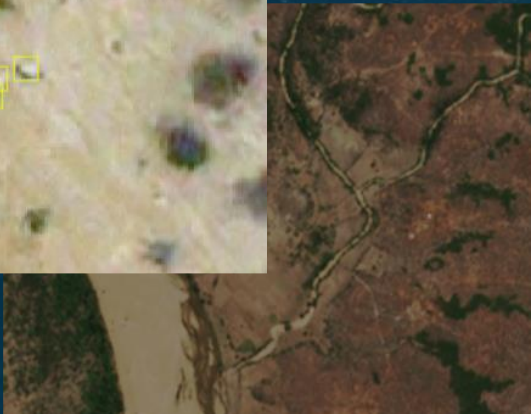
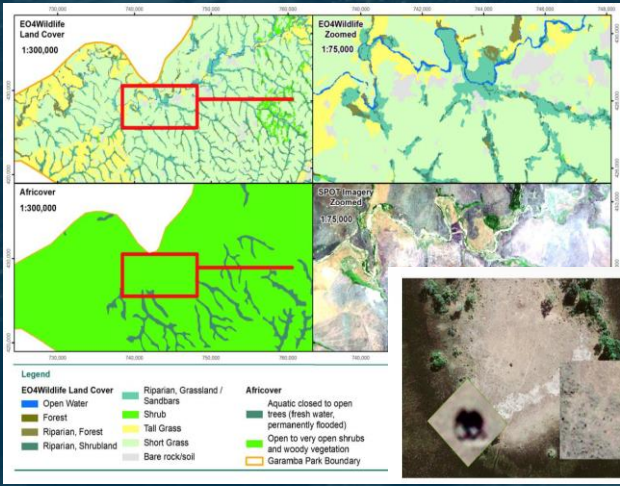
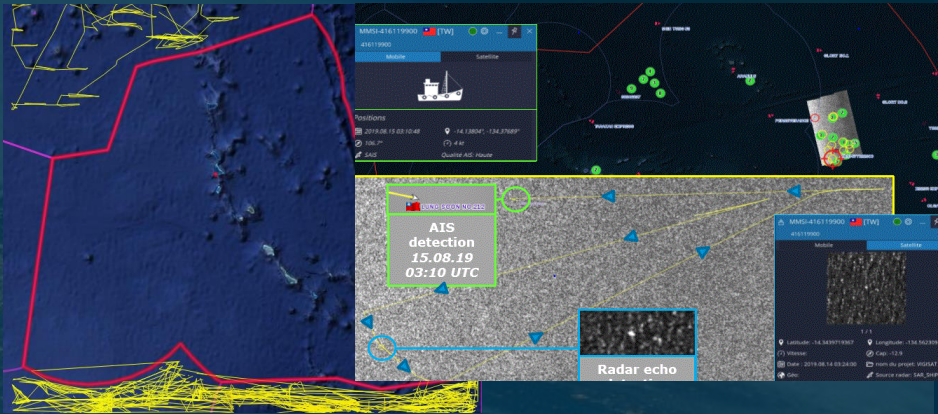
**Accelerate the future
of EO with cutting
edge research**



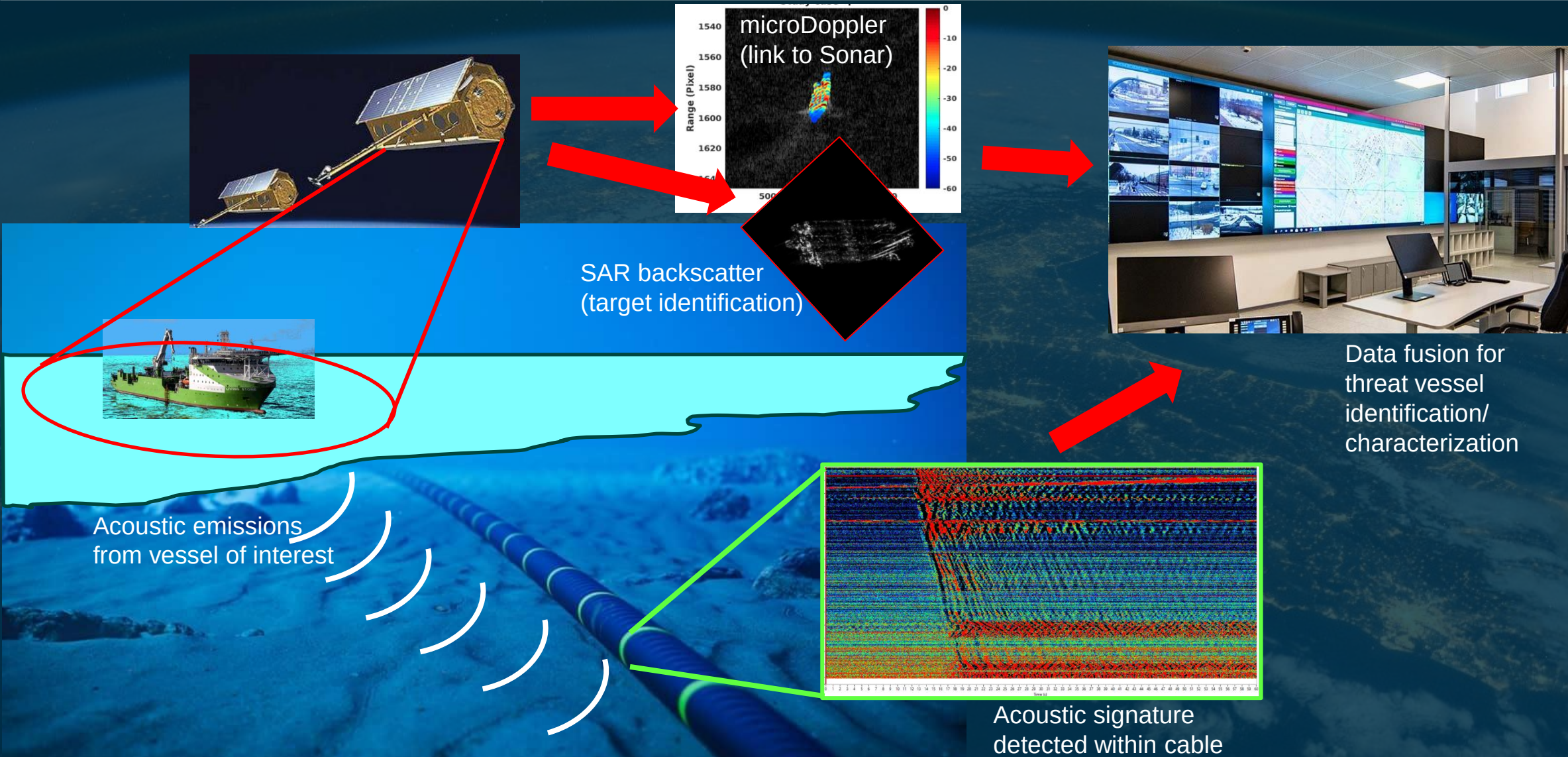
Illegal mining in Brazilian indigenous areas



Other ESA initiatives on environmental crimes



Critical marine infrastructure monitoring



ESA JRC Joint workshop





European
Commission



esa

The European Commission's
science and knowledge service

Joint Research Centre

11-12 JUNE 2024 ESA-ESRIN, FRASCATI, ITALY

ENVIRONMENTAL CRIMES WORKSHOP 2024



Workshop Objectives



Review Methods: Identify and review methods enabled by geospatial data sources to support better detection and characterization of environmental crimes and their consequences.



Enhance Awareness: Update on advancements in geospatial and open-source intelligence in the context of multidisciplinary evidence collection to assure environmental compliance.



Identify Gaps: Assess exploitation of EO capacity within enforcement authorities.



Define Requirements: Specify needs for EO and geospatial products in crime investigations



Align Strategies: Align with stakeholders' agendas to emphasize the need for evidence-based, data-driven crime-countering strategies that address the root causes and environmental, societal, and economic dimensions of crimes



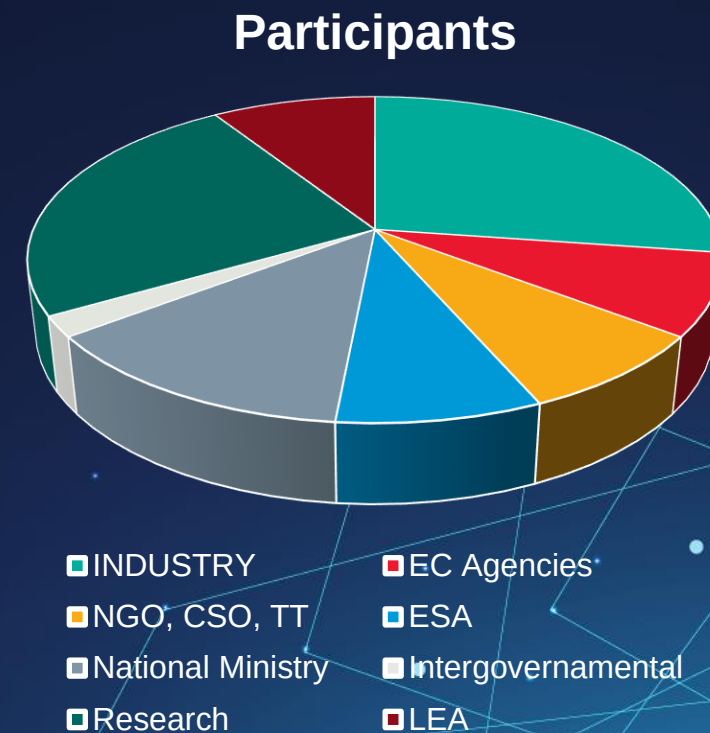
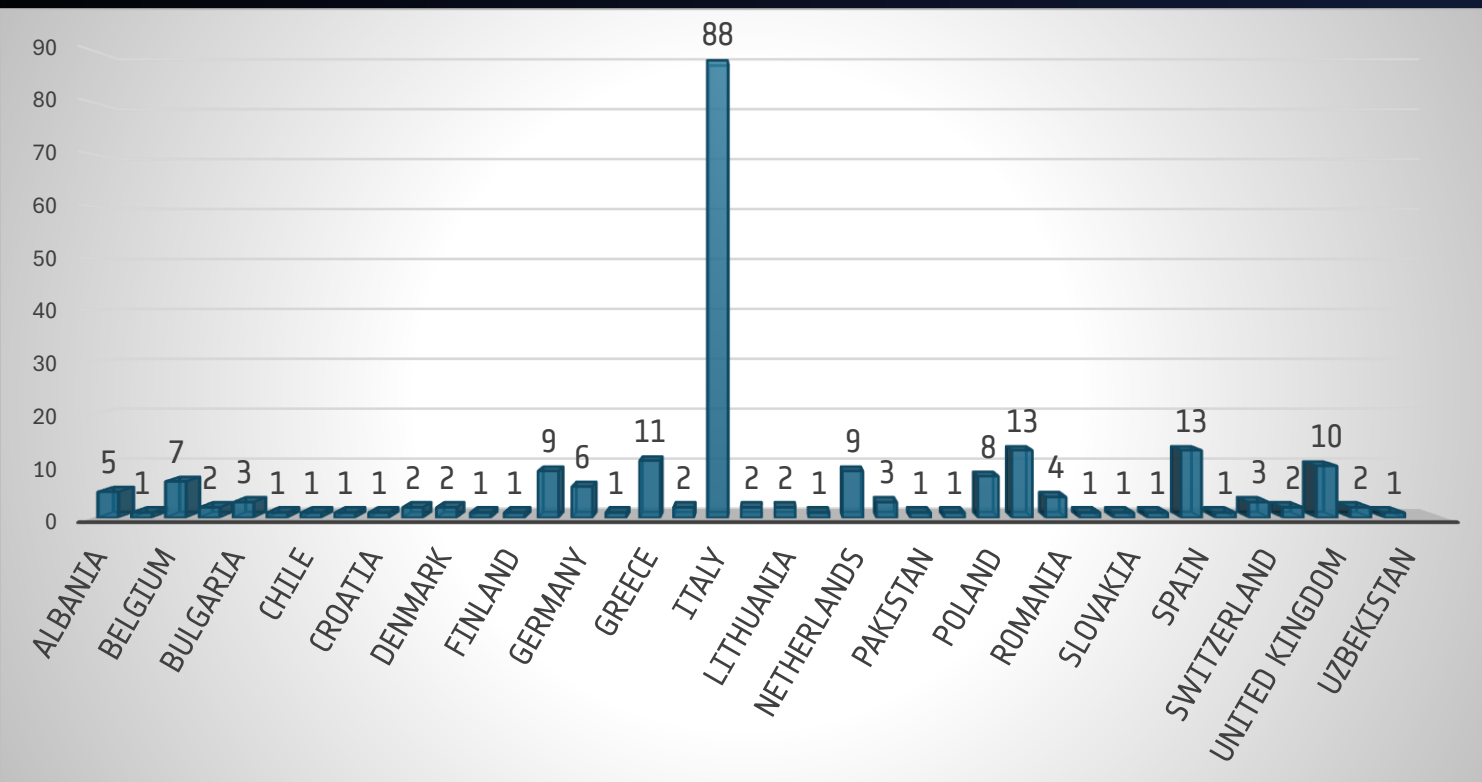
Integrate EO Capabilities: Gather insights in priority areas to improve the integration of EO capabilities in intelligence workflows and protocols for environmental crime investigations.



Implementation Roadmap: Formulate a strategic roadmap with prioritized research areas and topics, for a wider uptake of EO into investigations of environmental crimes within the ESA-JRC cooperation activities.

55 ABSTRACT SUBMISSIONS - 32 ORALS / 24 POSTERS

TOTAL OF 220 PARTICIPANTS FROM 39 COUNTRIES



- Policy framework in Europe – discussion on how to embed EO effectively in the process
- Role of GEOINT citizen science in supporting environmental compliance and enforcement, through results from several ongoing research activities
- Need to access new sensor data, new processing tools, and operational modes expressed by the community of practitioners in environmental compliance
- Analysis of interconnected issues connected to environmental crimes
- Support dialogue among policymakers, research, and community

What's next?



The next ESA Living Planet Symposium 2025 will take place in Vienna, Austria, on 23–27 June 2025, under the overarching theme: “From Observation to Climate Action and Sustainability for Earth”.



MAKE SPACE FOR EUROPE

<https://envcrimes2024.esa.int/>