

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

Environmental Crimes joint workshop with ESA-JRC-UNODC

ILLICIT CULTIVATIONS AND FISHING ADVANCED MONITORING THROUGH GEOSPATIAL INTELLIGENCE

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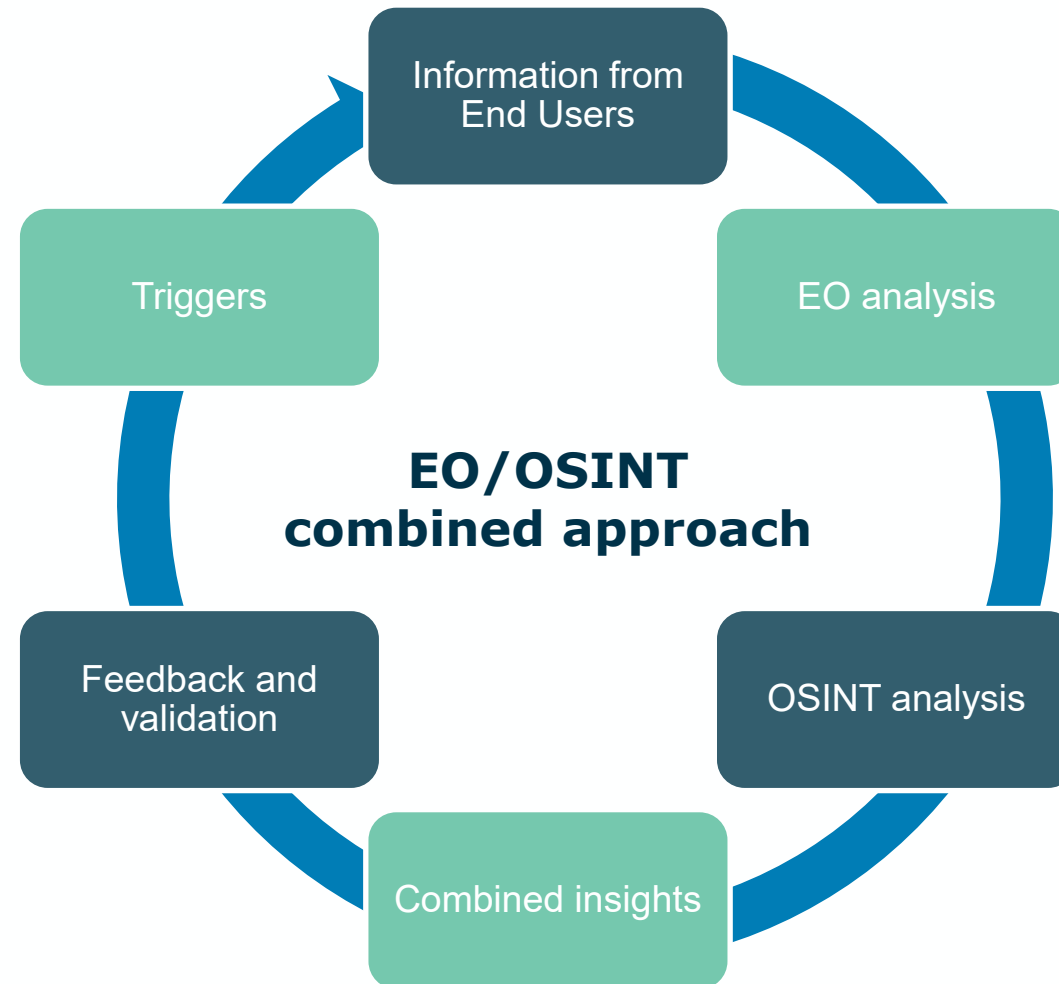
AGENDA



- EO4SEC heritage
- Use Cases examples
- Key Takeaways

Mekong Region





Use Case 1: EO/OSINT integration



European
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United Nations
Office on Drugs and Crime



1. Peru border Areas

More difficult to monitor for the institutions

2. Mix of environmental crimes

- Illegal mining
- Drug trafficking
- Illicit cultivation
- Illegal airstrips

Combined use of EO and OSINT

Social media and local news can be used as triggers of new analysis!



Image Pléiades © AIRBUS DS 2025



Image Pléiades © AIRBUS DS 2025

UNTRACKED INDUSTRIAL FISHING AND CLANDESTINE SHIPS ENTERING MARINE PROTECTED AREAS



European
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Methodology

Historical Analysis

Period: January 2023 – December 2024
Baseline extraction based on:

AIS:

- Maritime Patterns of life
- Standard route extraction
- Rendezvous/Transshipment

OSINT:

- Law enforcements reports
- Vessel Flag information
- Ship Ownership related information

Live Monitoring Campaign

Period: 12 July -25 July 2025:

Dedicated tasking:

- Satellite imagery
- AIS/ Radio Frequency

Data fusion and analytics through e-GEOS
SEonSE Platform

UNTRACKED INDUSTRIAL FISHING AND CLANDESTINE SHIPS ENTERING MARINE PROTECTED AREAS



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Historical AIS outcome:

- Seasonal Trends in Fishing Activity suggest to intensify patrolling in (Oct–Dec) in Seychelles and Tanzanian Exclusive Economic Zones (EEZs)
- Most active nations in the area by flag: China, Taiwan, Iran, Spain
- High level of fishing activity in Tanzania and Seychelles EEZs

OSINT outcome:

- Flags of convenience (e.g. Panama, Belize, and Mongolia); ships with frequent flag changes
- Hidden ownership mask accountability
- Law enforcements operations reports
- Suspected IUU fishing vessels (Yuan Tai, Taiwan)

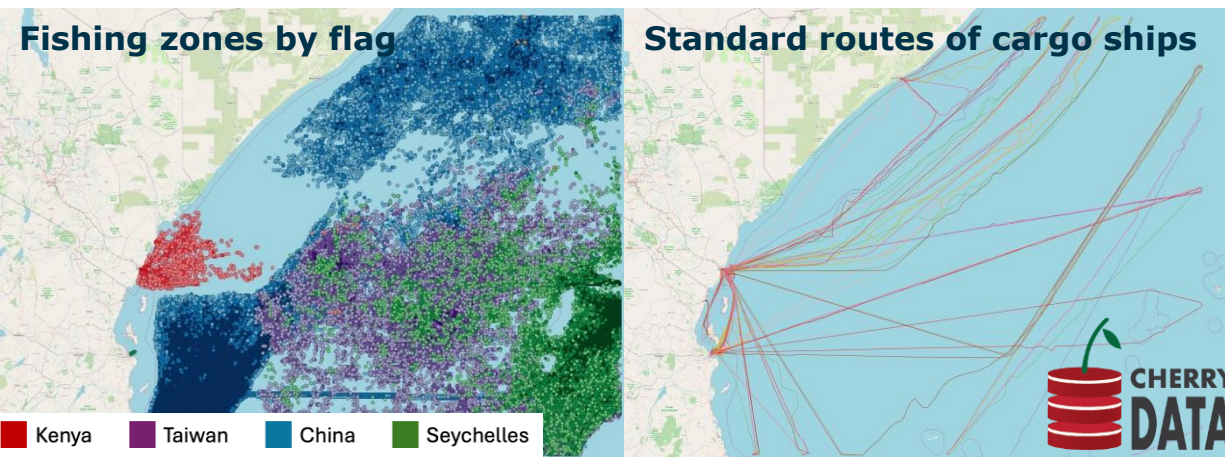


Kenya Coast Guard Service
@OfficialKCGS

Illegal, Unreported & Unregulated (IUU) Fishing in Lake Naivasha: A multi-agency team of officers from @kefsofficial & KCGS carried out an operation in Lake Naivasha & arrested illegal fishers. They impounded undersize tilapia fish & improvised jerrican boats #LindaTufaulu



©Trygg Mat Tracking



UNTRACKED INDUSTRIAL FISHING AND CLANDESTINE SHIPS ENTERING MARINE PROTECTED AREAS



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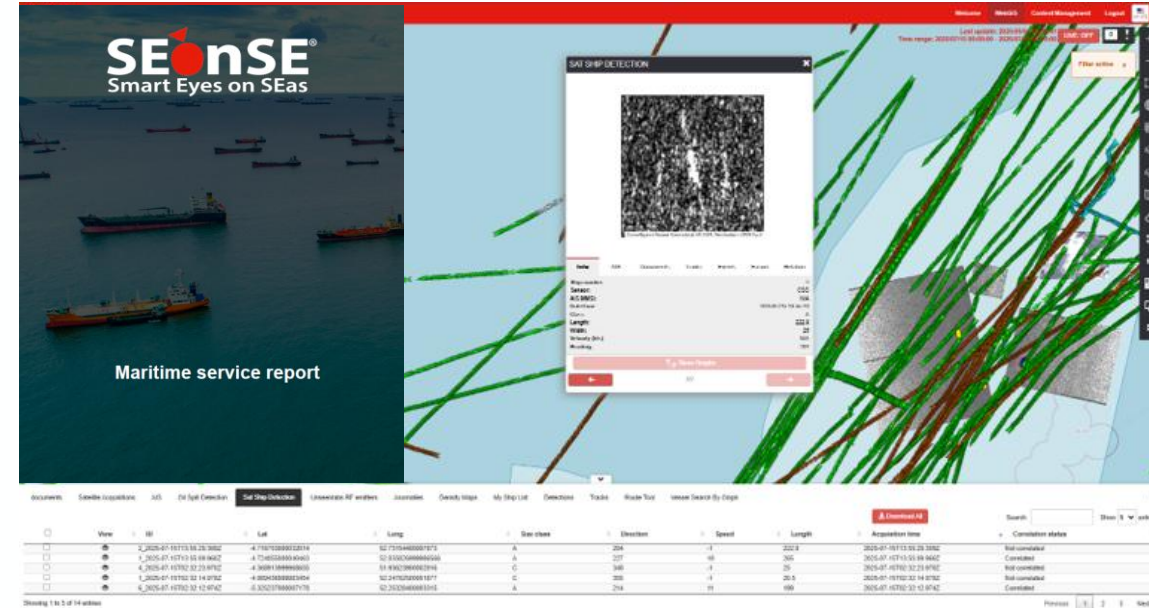


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Methodology

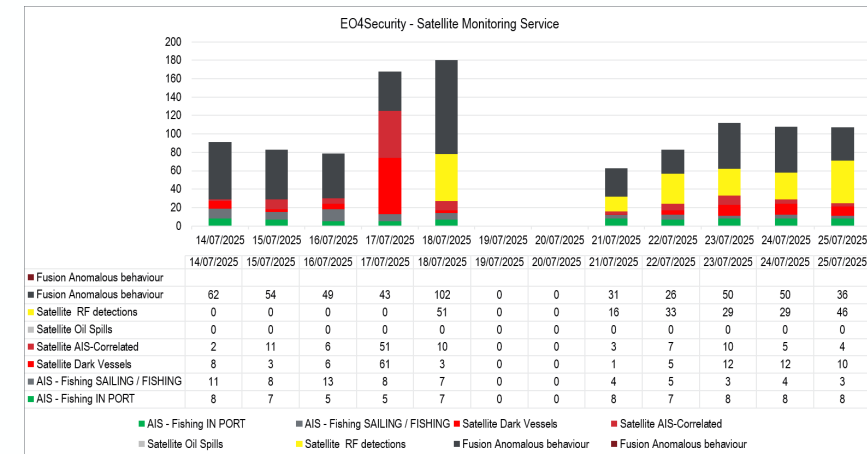
- Live monitoring campaign
- Data-fusion SEonSE platform for Maritime Awareness
- Daily reports + live detections



Overall events detected:

- Dark Vessels
- Unusual speed or trajectory (drifting)
- Group sailing
- Rendezvous
- AIS gap transmission

e-geos
AN ASI / TELESPAZIO COMPANY



Capacity Building and Dissemination



**ESA Environmental
Crimes Workshop**

11-12 June 2024

**UNICRI Regional
Workshop on Combatting
Organized Crime and Illicit
Trafficking Related to
Critical Minerals**

4-5 December 2024

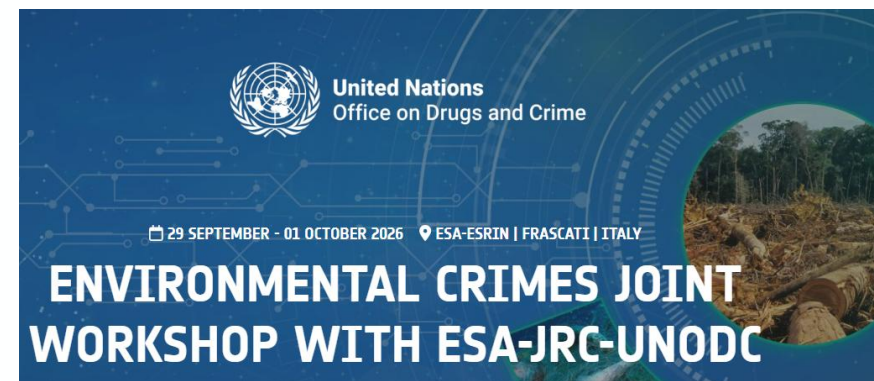
**2nd ESA
Environmental
Crimes Workshop**

Oct 2026

**Copernicus Workshop
on Research for
Security Applications**
22 October 2024

**ESA Living Planet
Symposium**

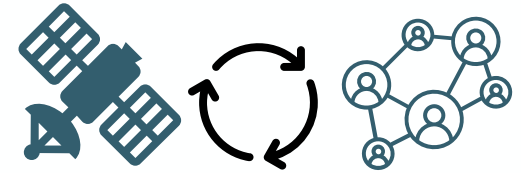
23-27 June 2025



→ THE EUROPEAN SPACE AGENCY

Conclusions

- EO/OSINT combined approach provides deeper insights to be used to support and drive investigations even in remote and border regions
- User friendly operative platform → Advanced Exploitation tool
- Capacity building activities allow to further expand EO/OSINT combined approach for prosecution and investigation



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THANK YOU!

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