



ENVIRONMENTAL SECURITY SUB-DIRECTORATE

*How Geo-Spatial Data
empowers INTERPOL's Fight Against Environmental Crime*

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A GLOBAL STRUCTURE



FOUR GLOBAL PROGRAMMES



**COUNTER-
TERRORISM**



CYBERCRIME



**ORGANIZED
AND EMERGING
CRIME**



**FINANCIAL
CRIME AND ANTI-
CORRUPTION**



INTERPOL



INTERPOL

Environmental crimes are a growing concern.

They constitute **an international security issue** characterized by transnational trafficking, a criminal supply chain with links to other serious crimes.



ENS CRIME AREAS



Fisheries-related Crimes

crimes in the entire fisheries sector, from harvest to processing, including food fraud at customer levels



Forestry Crime

criminal activity in the forestry sector covering the entire supply chain, from harvest and transportation to processing and selling.



Illegal Mining

both illegal extraction and trade of minerals, including the illegal use of toxic chemicals (such as cyanide and mercury) in mining activities



Pollution Crime

range of criminal activities involving the trafficking and/or the illegal management of potential contaminants



Wildlife Crime

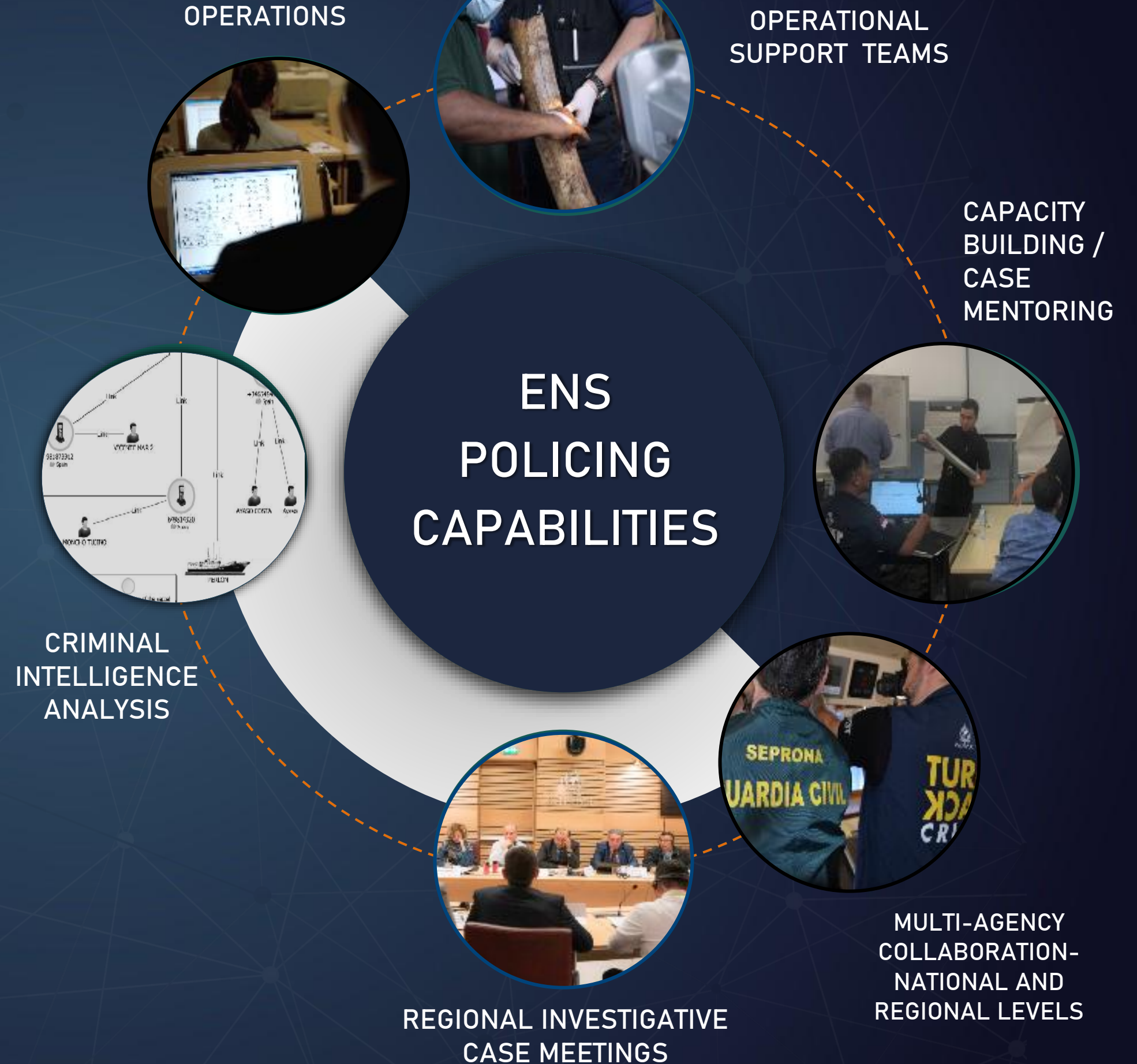
criminal activities involved in exploiting wildlife across the globe, threatening protected wildlife species, affecting vulnerable communities, national economies, and human health

NEW AREAS OF INTEREST

- 1 Carbon Trading Fraud
- 2 Illegal sand mining
- 3 Illegal exploitation of Critical Minerals
- 4 Illegal textile discard
- 5 Illegal water over-exploitation
- 6 Severe Forest Fires



POLICING CAPABILITIES





INTERPOL NOTICES

Enhanced information sharing, intelligence exchange, data analysis



RED NOTICE
Wanted Persons

164 Red Notices



YELLOW NOTICE
Missing Persons



BLUE NOTICE
Additional Information

39 Blue Notices



GREEN NOTICE
Warnings and
Intelligence

5 Green Notices



PURPLE NOTICE
Modus Operandi

135 Purple Notices



SILVER NOTICE
Criminal assets
(Pilot Phase)

2 Silver Notices



BLACK NOTICE
Unidentified Persons



ORANGE NOTICE
Imminent Threat



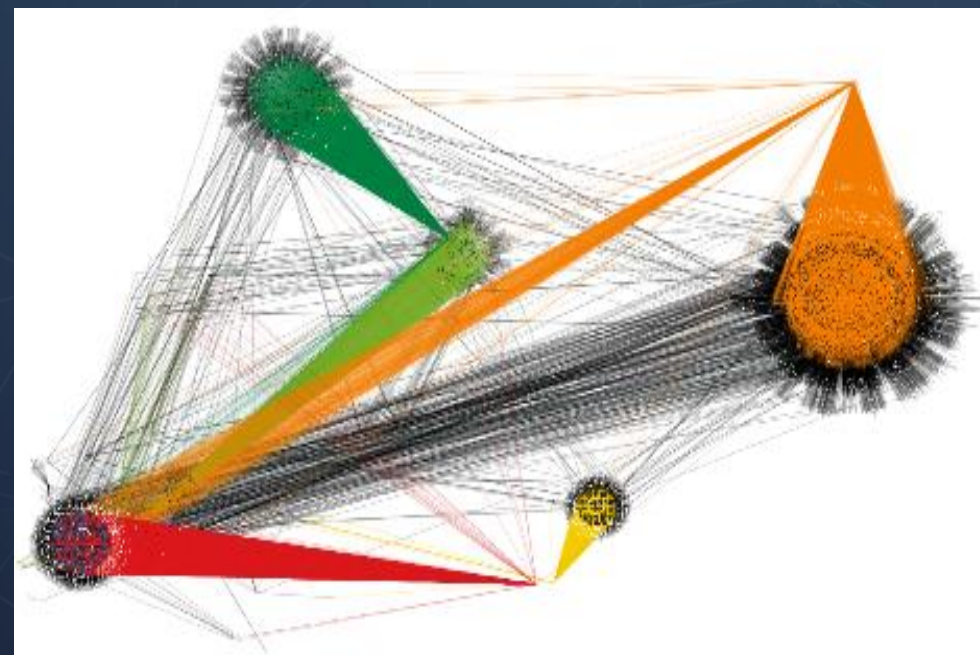
**INTERPOL-UN SECURITY
COUNCIL SPECIAL NOTICE**

Groups and individuals subject to UNSC
Sanctions

There are **approximately 419** valid
INTERPOL Notices related
to environmental crimes, as of March 2026

LAW ENFORCEMENT TOOLS TO DETECT ENVIRONMENTAL CRIMES

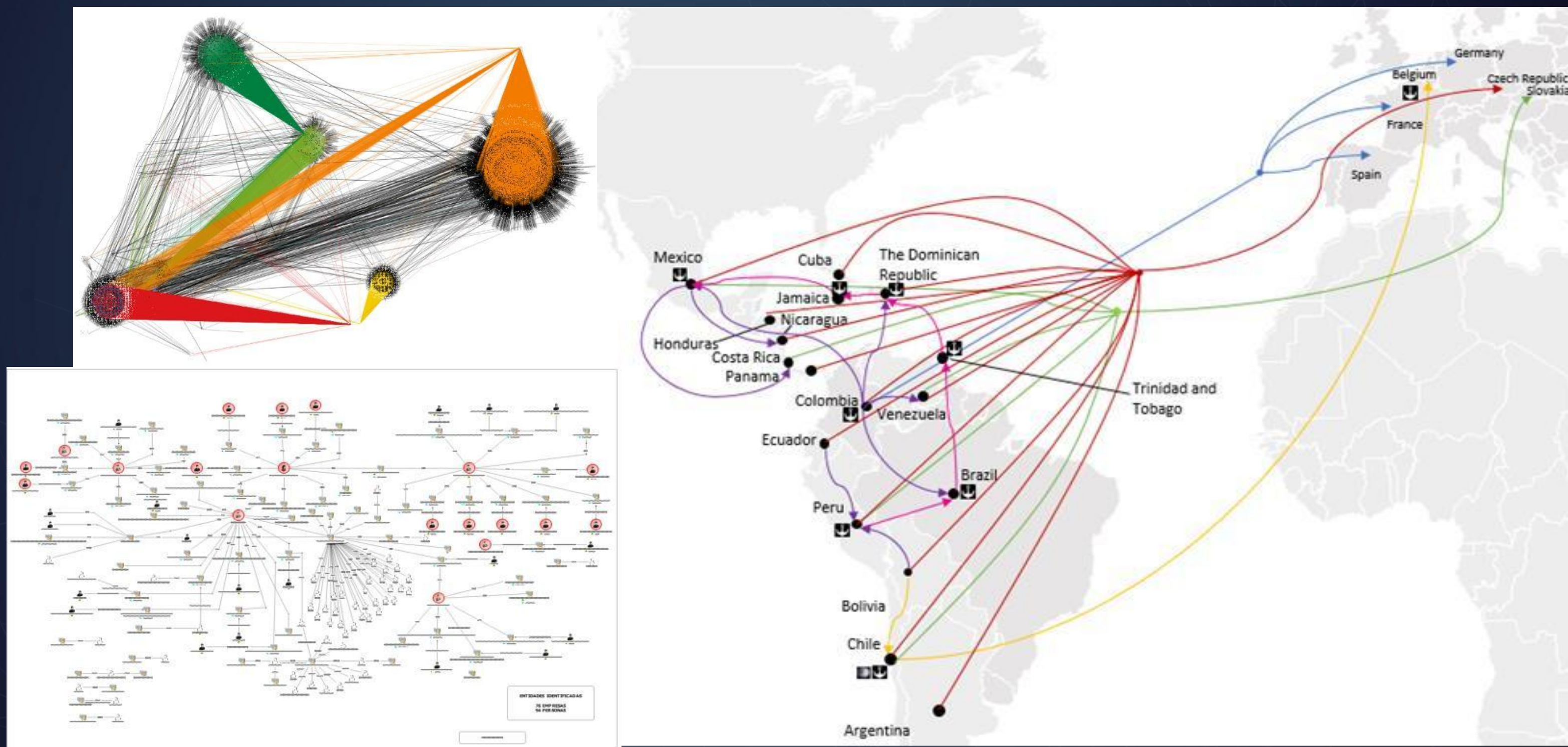
- ✓ DNA & Forensic Analysis
- ✓ **Satellite Imagery**
- ✓ Drones
- ✓ Artificial intelligence (AI) and Big Data analysis





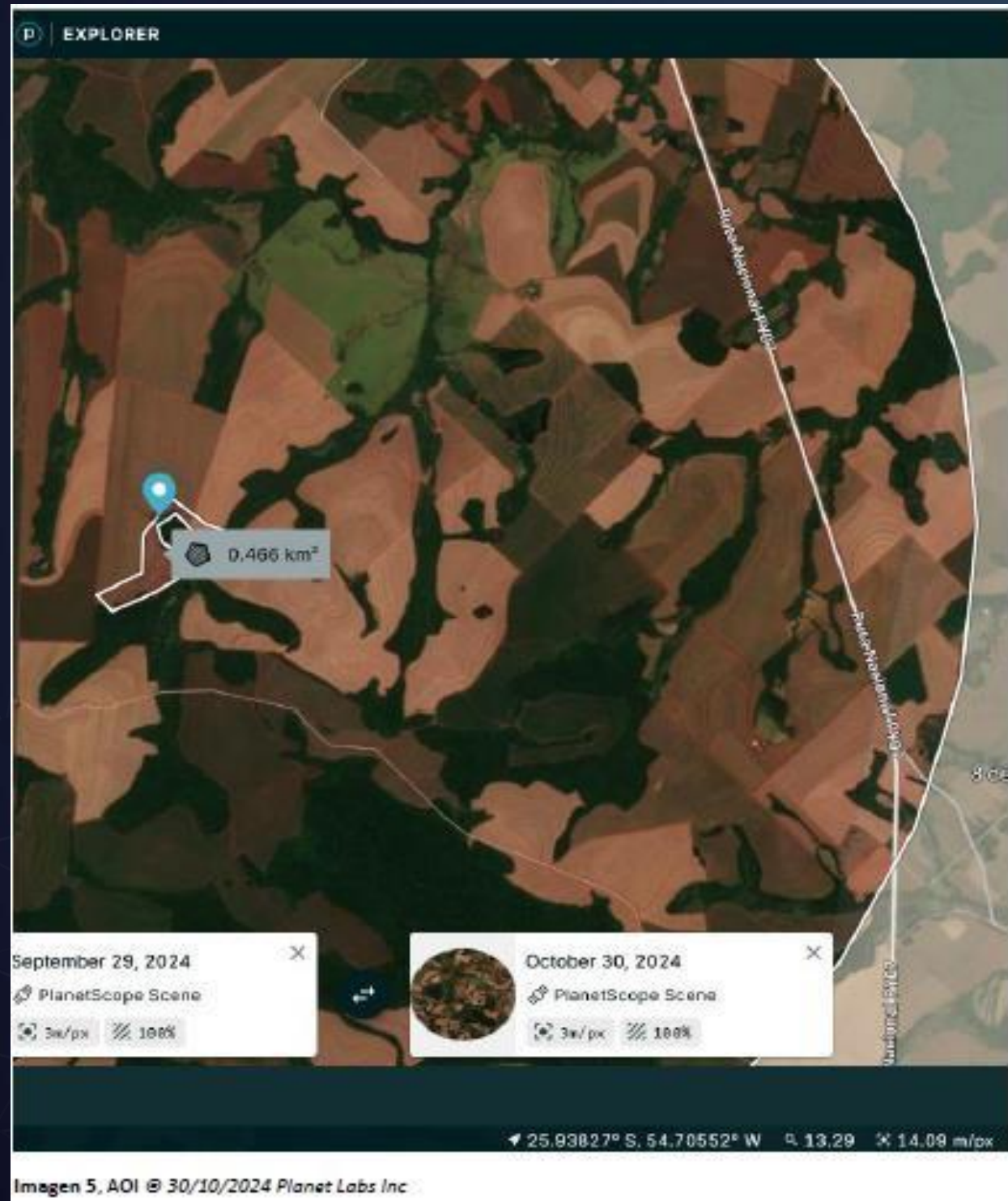
INTERPOL

CRIMINAL INTELLIGENCE ANALYSIS



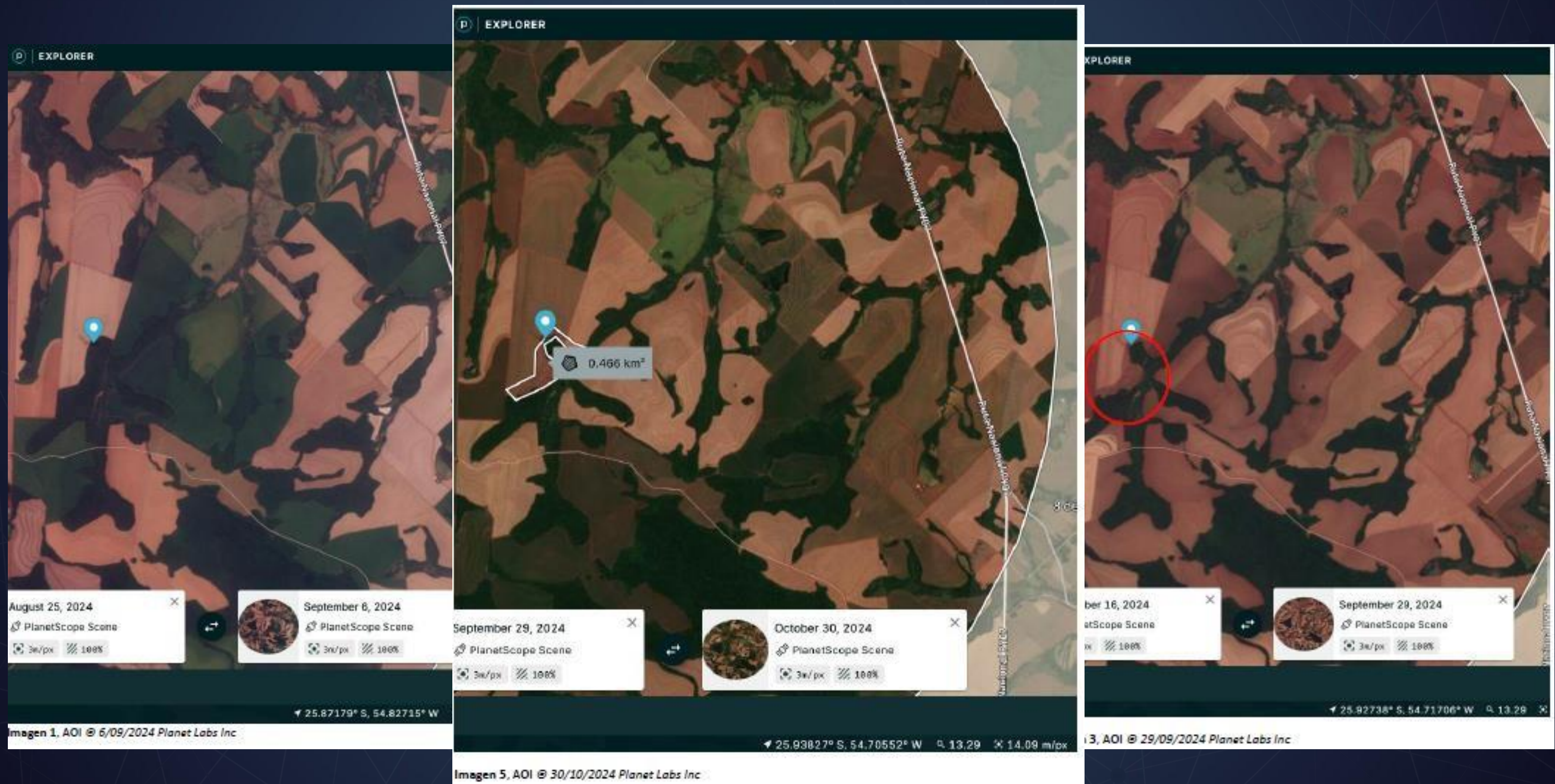
Map 1: Suspected timber trafficking routes from the rest of LAC to Europe and inter regional trade.

MONITORING AND DETECTING TROPICAL FOREST COVER CHANGES



- ☐ Identification of area of interest
- ☐ Study of evolution
- ☐ Surface measurement
- ☐ Intelligence report shared with requesting country
- ☐ Enforcement action

MONITORING AND DETECTING TROPICAL FOREST COVER CHANGES



MONITORING AND DETECTING TROPICAL FOREST COVER CHANGES

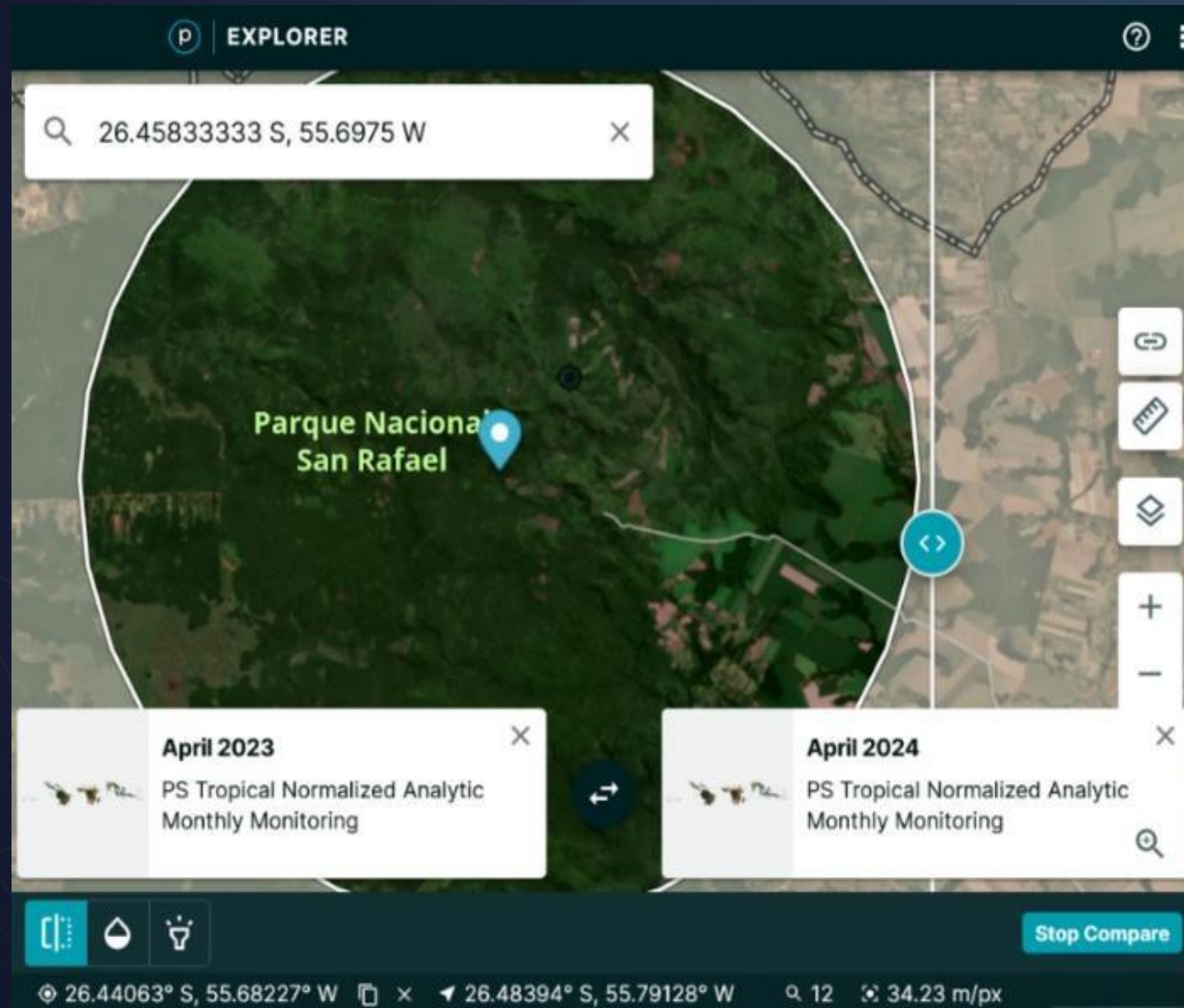


Image 1 © April 2023 Planet Labs Inc.

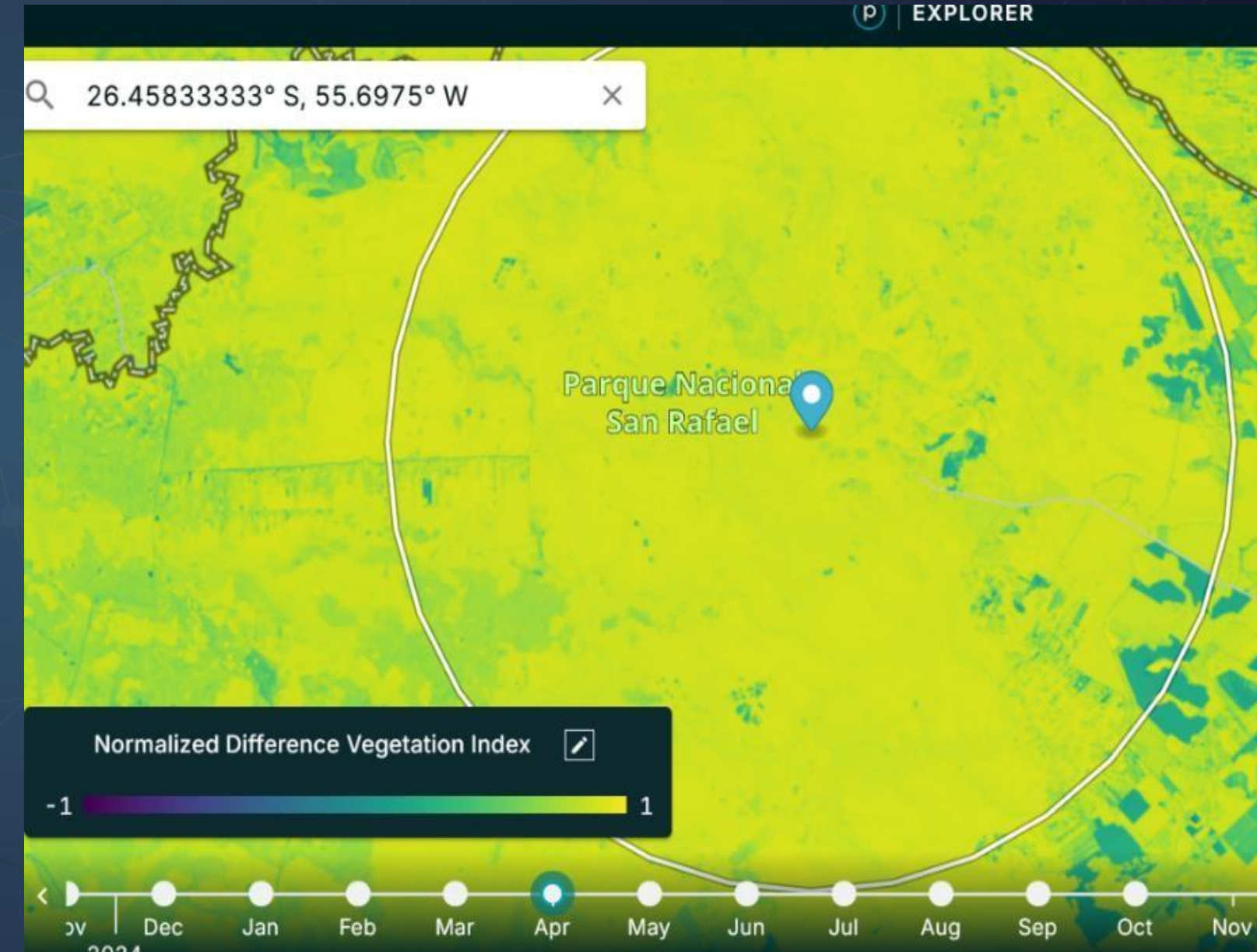


Image 2 © April 2024 Planet Labs Inc.

Changes in forest cover in the same area from 2023 to 2024

MONITORING AND DETECTING TROPICAL FOREST COVER CHANGES

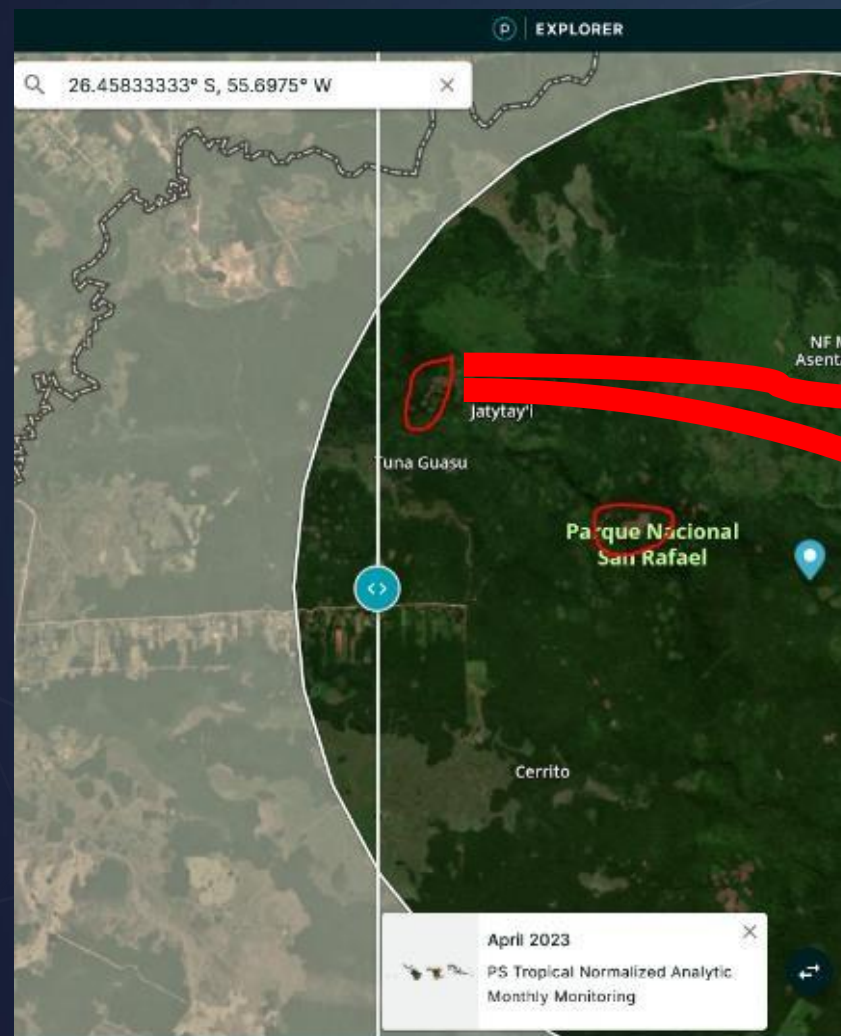


Image 2 © April 2024 Planet Labs Inc.

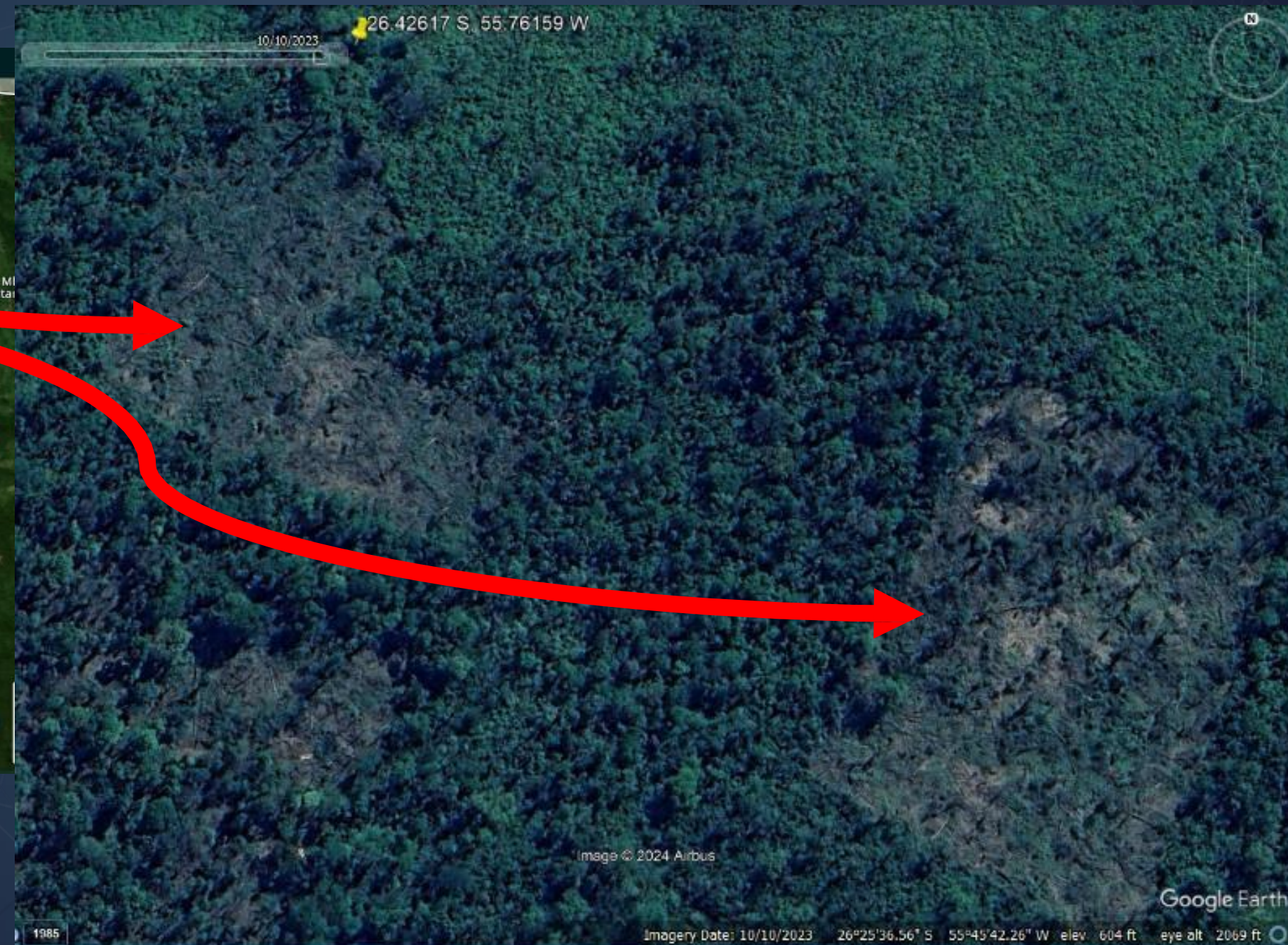


Image 3 © October 2024 Google Satellite hybrid

BUILDING CAPACITY ON THE USE OF SATELLITE IMAGERIES



Mentoring activity on **Geospatial Technologies and Investigative Techniques for Gold Trafficking and Associated Crimes**,

Mentoring curriculum developed by INTERPOL in collaboration with the Brazilian Federal Police, showcasing the best practices that have been designed and refined by the Federal Police in the fight against illegal mining.

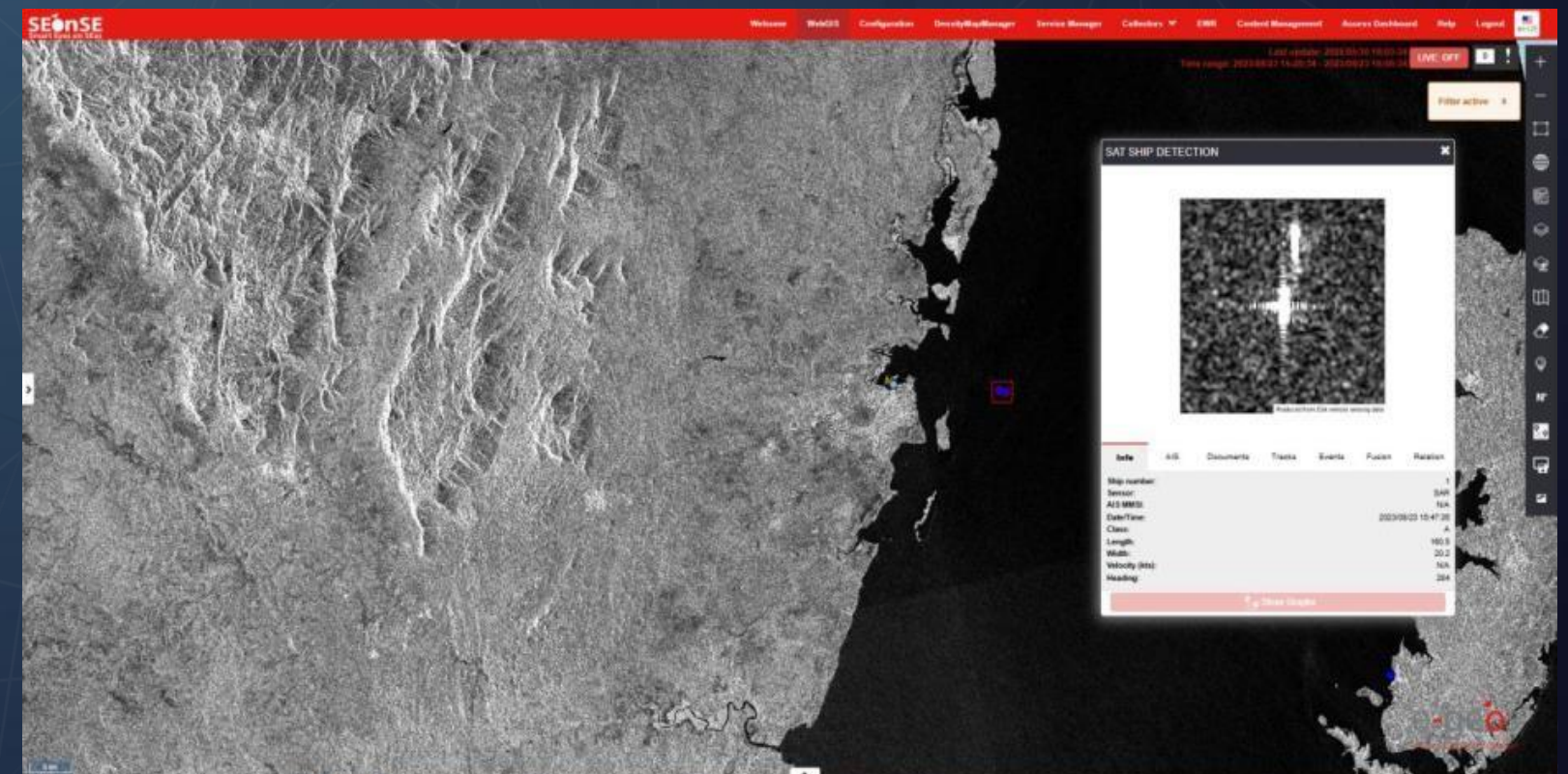
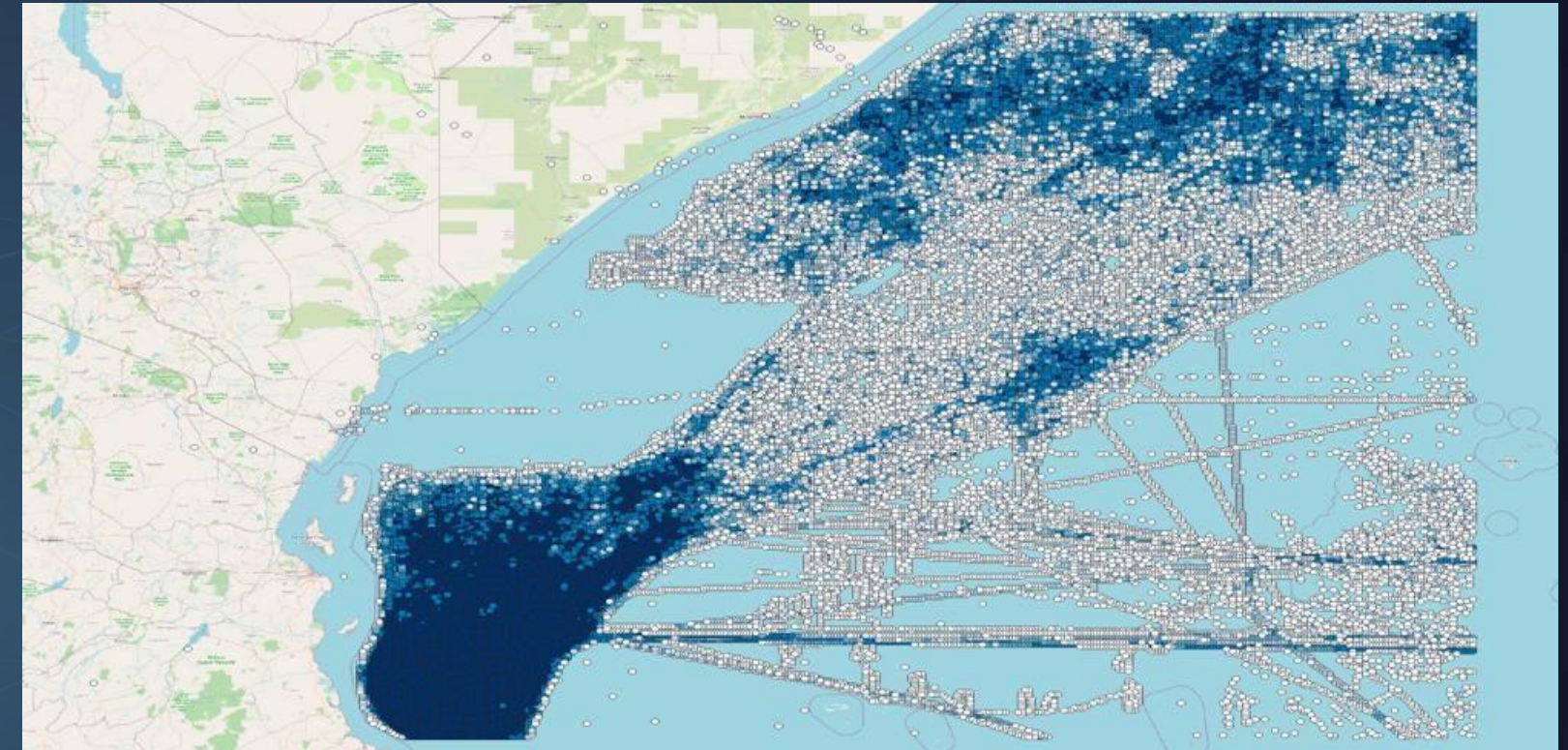
The first week focused on fostering information-sharing and discussion on issues linked to illegal mining, including the identification of environmental and financial crimes, criminal organisation analysis, and money-laundering dynamics, with the goal of identifying opportunities for improved State action against illicit activities.

The second week was dedicated to practical geospatial training, covering the basic concepts of Geographic Information Systems (GIS), remote sensing (spatial, temporal, and radiometric resolutions, sensor types), topography, vector and raster data, spatial data attributes, coordinate systems and projections, and practical applications of geospatial data in law enforcement. The participants also received hands-on instruction in the use of QGIS and AVENZA Maps.



INTERPOL - ESA Cooperation

- ☐ Under EO4SEC – Illegal fishing activities
- ☐ Maritime patterns
- ☐ Satellite imagery
- ☐ AIS
- ☐ OSINT data
- ☐ Untracked industrial vessels
- ☐ Entering of clandestine vessels into marine protected areas



KEY FINDINGS

Detection vs. AIS Reporting

Only around 60% of detected vessels were transmitting AIS signals. This implies that approximately 40% of vessels were “dark”

Seasonal trends in fishing activity

Fishing levels vary through the year

Geographic distribution Fishing is predominantly found outside national EEZs + 2 key fishing hotspots identified

Anomalous behaviors AIS Transmission gaps // Invalid identification codes // Potential rendezvous events // Deviation from standard routes

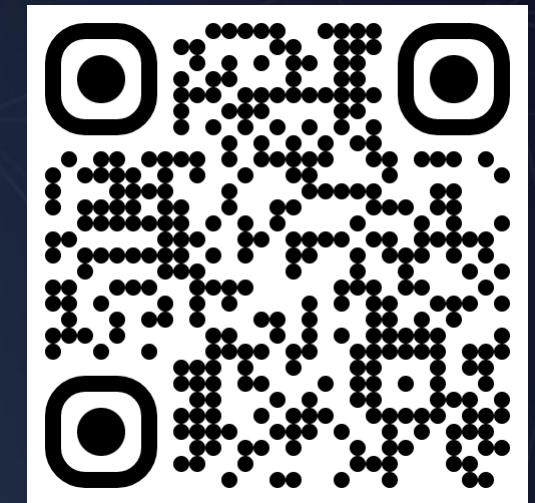
REMAINING CHALLENGES

Latency +
resolution

Overlapping of
information layers

Knowledge +
availability of
sources of
information

Associated costs



CONNECT WITH US

Thank you

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