→ ENVIRONMENTAL CRIMES
FUNDING UP TO €60K PER ACTIVITY

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Environmental Crimes

Welcome to the Environmental Crimes webinar!

Before we start…

- Please keep your microphones muted at all times and switch off the webcam function

- You can use the conversation function anytime to submit your questions. They will be addressed during the Q&A at the end of the webinar

Environmental Crimes

Welcome to the

Before we start...

- Please keep your ~~~~~~~~~~~~~~~ bcam function

- You can use the ~~~~~~~~~~~~~~~~ s. They will be addressed du~~~~~~~~~~~~~~~

SfB Notes: skype call (27/11/2018 18:15 - 18:45) - Id: 140525AE (1 Participant)

1 Participant   0:07

Looks like you're the only one on the call.

Antonino Coppola

Your speaker is muted.   Unmute
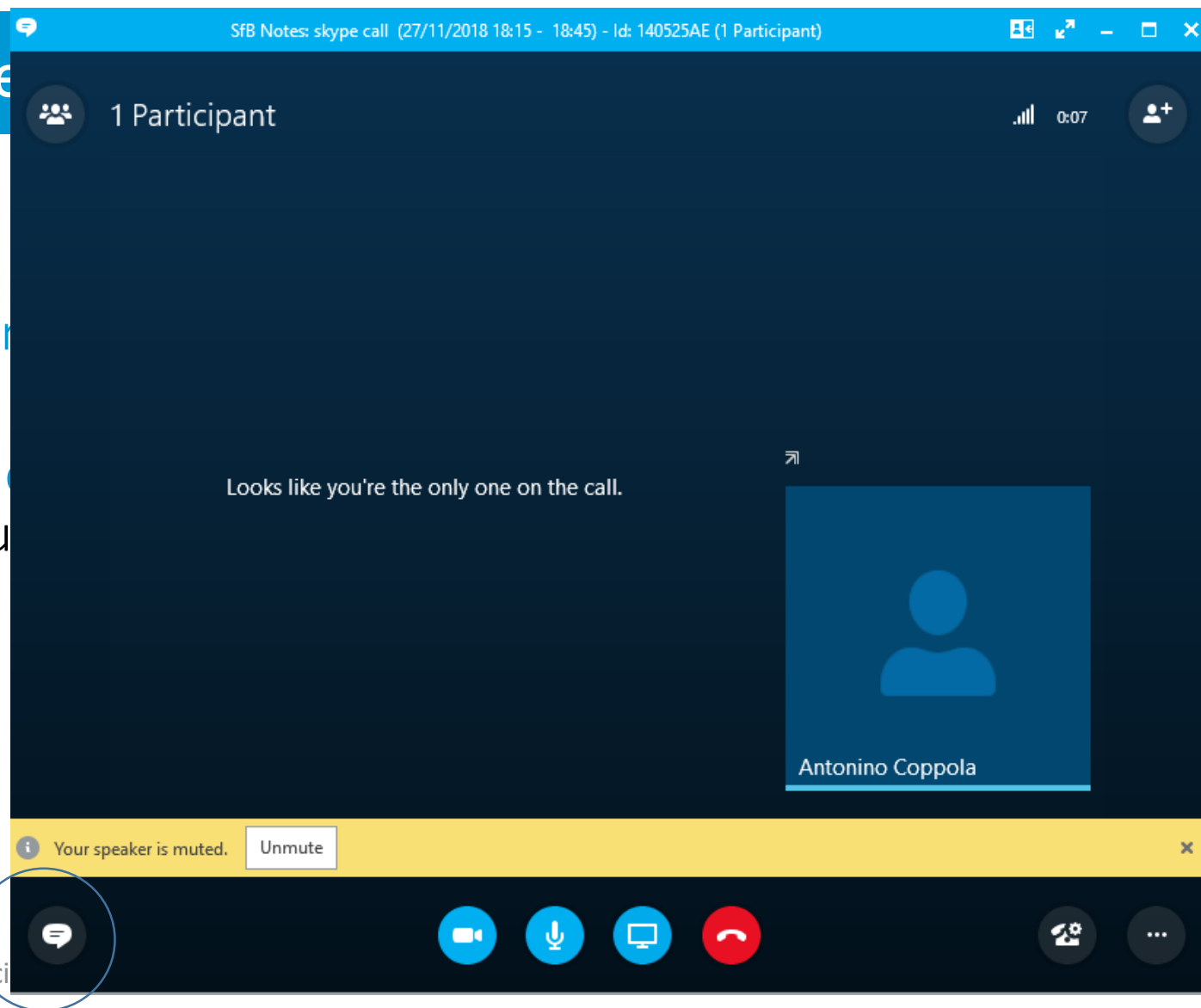
Environmental Crimes

WEBINAR AGENDA

- Introduction
  - What ESA offers

- Space for Environmental Crimes

- Kick-start Activity essentials
  - Introduction to a Kick-start Activity
  - How to Apply

- Q&A

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FUEL FOR YOUR BUSINESS

Can you leverage Space technology and data for the benefit of life on Earth?

Space Weather

Earth Observation

Satellite Navigation

Satellite Communication

Human Spaceflight Technologies

Maritime

Healthcare

Transport

Environment

Agriculture

Media

Energy

Education

Aviation

Financial

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WHAT ESA OFFERS

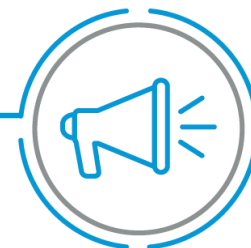We'll work together to make your idea commercially viable, with:

Zero-Equity
Funding
(€60k-€2M+)

Tailored Project
Management
Support

Access to
Our Network
& Partners

Use of the
ESA Brand for
Credibility

Environmental Crimes

Opportunity

➢ The European Space Agency is offering **technical support** and **funding** to companies developing innovative and **commercial services** that use **space technology** to combat **environmental crimes**.

➢ To find out more: https://business.esa.int/funding/invitation-to-tender/enviromental-crimes

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Environmental Crimes

Environmental crime is the fourth largest criminal enterprise in the world and includes:

i) Crimes Impacting Environmental Quality
- Illegal land pollution - illegal waste dumping, waste burning and waste exporting
- Water-related crimes like water fraud, illicit water contamination and water theft
- Manipulation of carbon credits, and illegal emissions of hazardous gases.

ii) Crimes Affecting Wildlife
- Poaching and the unlawful trade of flora and fauna

iii) Crimes Damaging Natural Resources
- Illegal logging and charcoal trafficking
- Illegal, unreported and unregulated (IUU) fishing
- Illegal mining
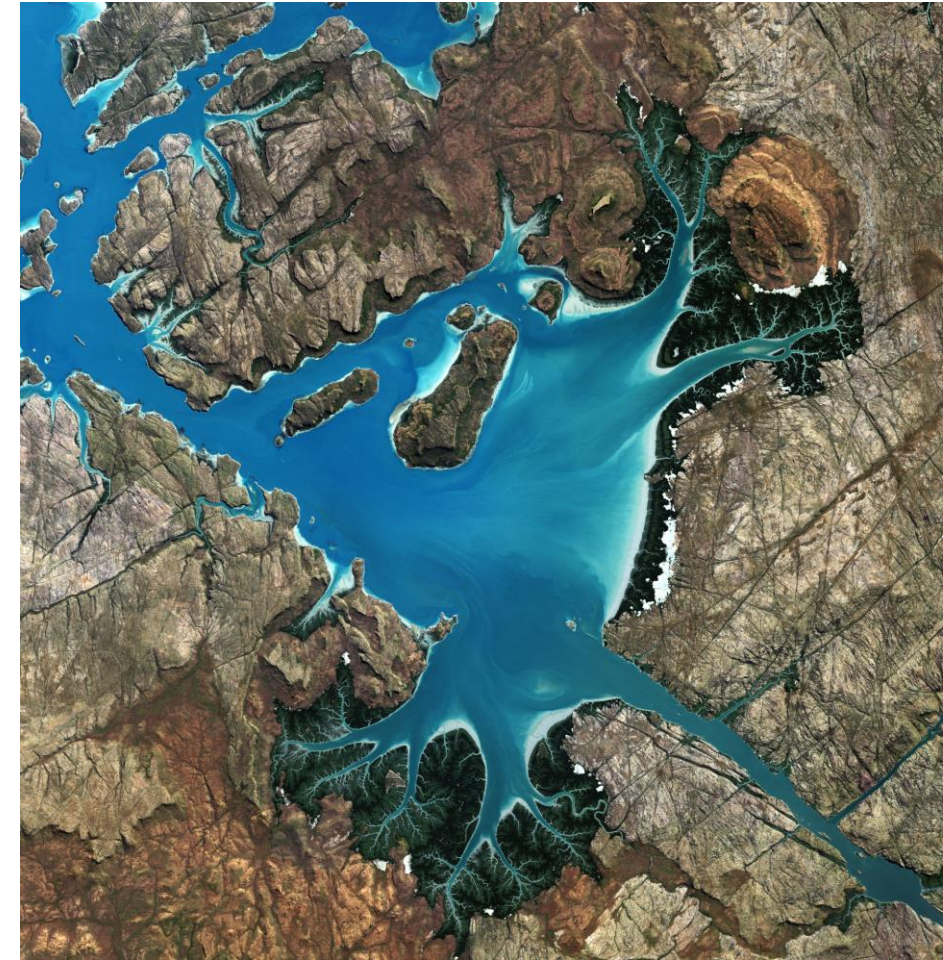
Crimes Damaging Natural Resources

Illegal Forestry, Fishing and Mining

INTERPOL and the UN Environment Programme investigated Environmental Crime and found that:

- Abuse of the environment is the fourth largest criminal activity in the world.

- Worth up to USD 258 billion, it is increasing by 5-7% every year and converging with other forms of international crime.

- Strategic Report: Environment, Peace and Security – A Convergence of Threats. Available at www.interpol.int and www.unep.org
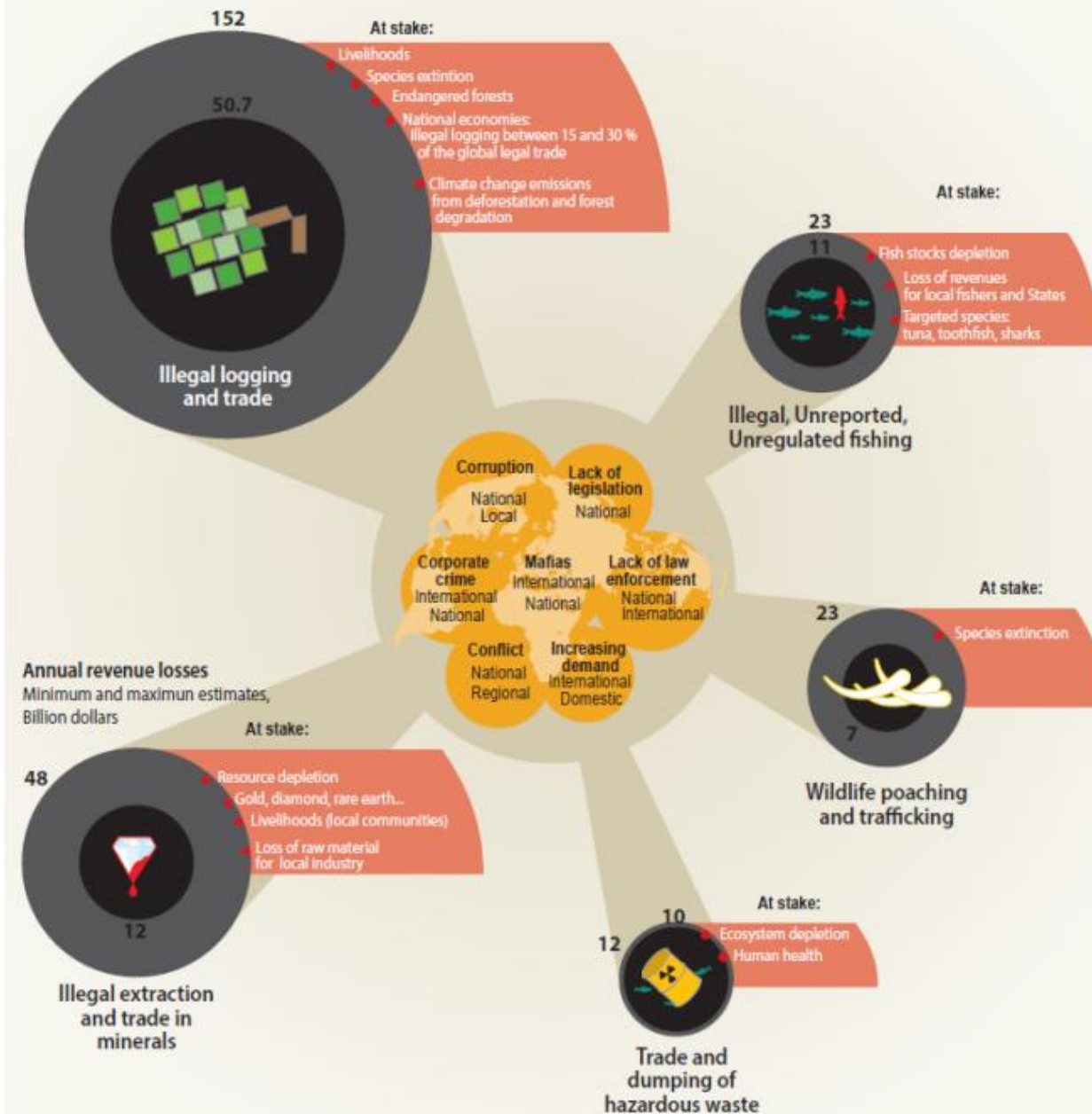
Crimes Damaging Natural Resources

Illegal logging, fishing and mining have major financial and social implications.

There are some common trends associated with Environmental Crimes.

Major environmental crimes, drives and impacts

Illegal Logging and Timber Trafficking

Illegal logging is estimated to make up 80% of log production in Brazil and 73% in Indonesia. [INTERPOL, UNEP]

Criminals mix legal and illegal wood, sometimes on legitimate cutting sites.

Timber is usually transported in trucks or vessels in remote areas and false permits hide the origin or species of the wood.

Charcoal is the primary source of household energy in Africa and is traded illegally due to strict legislation on deforestation in some countries.

Charcoal is often transported in bags and mixed with other goods

Illegal, Unreported and Unregulated Fishing

Annual loss due to fisheries crime is estimated between USD 10 billion and USD 23.5 billion, representing between 11 and 26 million tonnes of fish products. [INTERPOL, UNEP]

Some vessels overrun quotas, use banned fishing methods, and operate under multiple identities and flags, which they change frequently at sea.

Vessels often meet and pass cargo between them, mixing illegal fish with legal catch

Illegal Mining and the Illicit Trafficking of Precious Metals

Illegal mining can belong to large-scale organised crime, led by illegal mining syndicates, or it can be a subsistence activity.

There are, for example, an estimated 6000 Zama Zamas (artisanal miners who conduct illegal mining in discontinued mines) underground in South Africa at any one time.

There are considerable risks to illegal mining. The unregulated and illicit nature of the work has brought about violence, corruption, and turf warfare.

OPERATION THUNDERBALL 2019

Tackling illegal wildlife crime

INTERPOL

**WORLD CUSTOMS ORGANIZATION
ORGANISATION MONDIALE DES DOUANES**

109 countries

582 suspects arrested

1,828 seizures including:

545kg ivory

1.3t pangolin scales

9,777 live tortoises and turtles

604t and 2,551m³ timber

1.7t plants

4,304 live birds

9,820 marine species

1,422 live reptiles
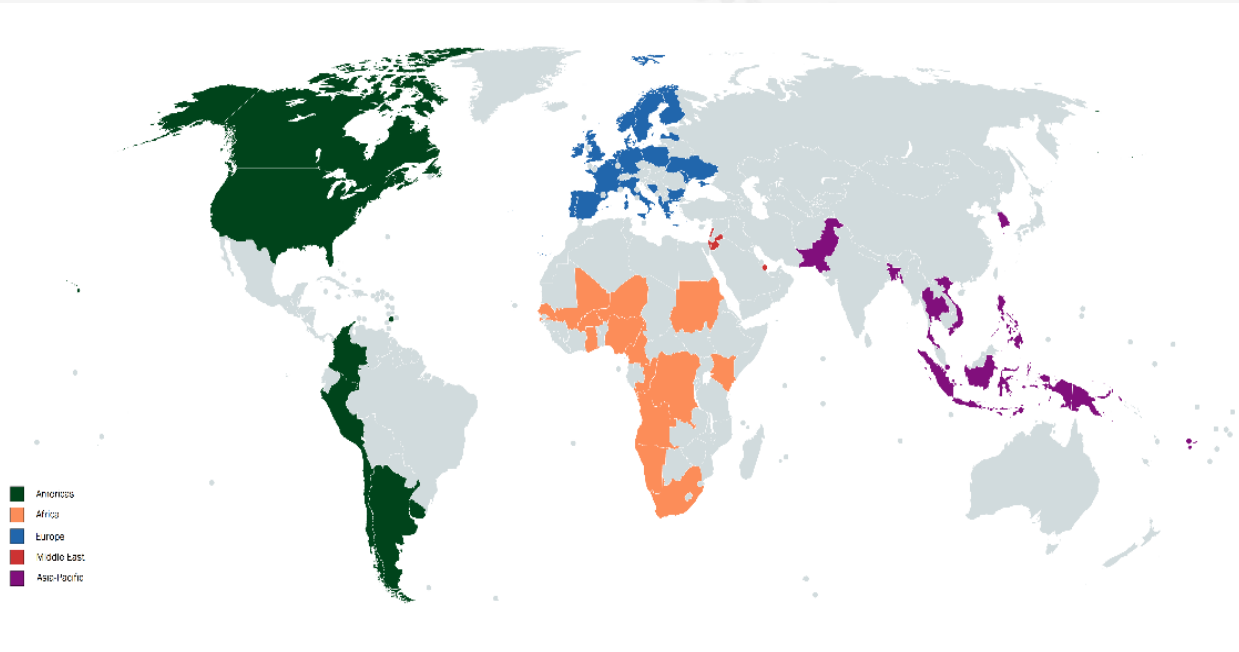
OPERATION 30 DAYS AT SEA

TACKLING MARITIME POLLUTION CRIME

The first global law enforcement operation countering marine pollution crime

A Global Enforcement Network:

- 58 participating countries worldwide
- 122 National Operational Coordinators
- 276 law enforcement and environmental agencies

58 PARTICIPATING COUNTRIES

AMERICAS (8)	AFRICA (14)	MIDDLE EAST (3)	EUROPE (22)		ASIA – PACIFIC (11)
Argentina	Angola	Lebanon	Albania	Italy	Bangladesh
Canada	Burkina Faso	Jordan	Belgium	Latvia	Fiji
Chile	Cameroon	Qatar	Bosnia and	Moldova	Indonesia
Colombia	Congo		Herzegovina	Netherlands	Pakistan
Peru	Democratic		Bulgaria	Norway	Papua New
St. Vincent &	Republic of Congo		Denmark	Poland	Guinea
Grenadines	Ghana		Finland	Portugal	Philippines
United States of	Kenya		France	Spain	Republic of
America (USA)	Mali		Germany	Sweden	Korea
Uruguay	Namibia		Greece	Ukraine	Singapore
	Niger		Ireland	United	Thailand
	Nigeria		Israel	Kingdom	Timor Leste
	South Africa				Vietnam
	Senegal				
	Sudan				

KEY OPERATIONAL RESULTS

- 15,446 inspections conducted
- 1507 marine pollution offences detected
- 701 investigations opened
- 202 vessels and 76 companies reported

Every 1 out of 10 inspections revealed a marine pollution offence

NUMBER OF VIOLATIONS

Investigative techniques

Aerial Surveillance (Fixed-wing aircraft and Helicopters)

Aerial picture taken by French authorities to assess the oil pollution resulting from a ship collision in Cap Corse, France

Hamburg Polizei used Helicopters to take samples at the location of an oil discharge at sea

On-water patrols

Qatari Coast Guards deployed high visibility patrols to deter marine pollution crime and ensure stricter compliance
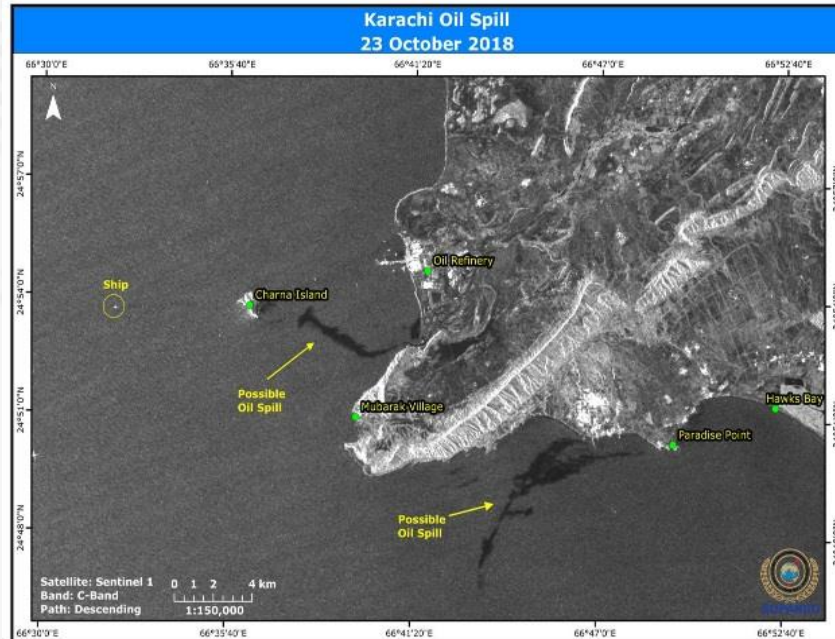
Innovative investigative techniques

Drones

Use of a Drone for Port Inspections in Nigeria

Satellite Imagery including EMSA Cleanseanet Satellite System

Mapping of oil pollution incidents detected in Pakistan during the Operation, generated from satellite imagery

Vessels Tracking System, including:

- Automatic identification system (AIS)
- Software and Applications

Map of vessels identified in Angola waters, used by authorities to monitor vessels positions and itineraries, and detect risk indicators

- Drones, incl. with Sulphur sensors and Mapping software
- Side Looking Airborne Radar (SLAR)
- Electro-optical Infrared Cameras (EO/IR)
- Infrared/Ultraviolet Line Scanner (IR/UV)

Project Mercury

INTERPOL is running Project Mercury, an operation to Stop Illegal Mining

INTERPOL is looking for new technologies to stop the unlawful extraction, transportation, export and sale of minerals.

→ THE POWER OF SPACE TO STOP ENVIRONMENTAL CRIMES

Satellite Navigation

GNSS can geo-tag data e.g. tracking wildlife via collars or tags and tracing goods like lorries carrying legitimate timber or fish stocks across the value chain.

Satellite navigation can track the movements of ships and vehicles to detect if anything illicit is occurring.

Earth Observation

EO satellites can provide images of hot spots where border crossings peak, as well as new roads, tracks and massed vehicles alluding to illicit smuggling or illegal trade.

EO data can monitor air quality and water quality and can detect precise changes on land (deforestation, new activity in a 'closed' mine, illegal waste dumping).

Earth Observation data can support mapping in the forestry sector and could support companies in obtaining certificates and carbon credits.

Satellite Communication

Satcom can provide data, video and voice communications connecting border patrol vehicles. This enables widely scattered forces to share information and images, and to operate as a single unit.

In remote areas, and where terrestrial networks are insufficient e.g. ships, mining sites, forests, satellite communications can provide secure connectivity.

Drones are also active in border patrols and, when flown via satellite by remote operators, they can capture images and videos from the field, effectively extending the reach of border control agencies for thousands of miles.

Drones can also help with mapping forests, land and coastal regions.

→ **ENVIRONMENTAL CRIMES KICKSTART: HOW TO APPLY**

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Environmental Crimes Kickstart

6 months duration

Up to **€60K ESA funding** (75% ESA co-funding)

Develop business case for commercially viable services

- **Customer Engagement**

- **Technical Feasibility Assessment**

- **Commercial Viability Assessment**

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→ OPPORTUNITY: ENVIRONMENTAL CRIMES

Applying for the Opportunity

Up to €60K ESA funding (75% ESA co-funding)

Proposal Submission Deadlines	Opening date	Closing date
Crimes Impacting Environmental Quality	02/09/2019	11/10/2019
Poaching and Trafficking	11/11/2019	10/01/2020
Crimes damaging Natural Resources	13/01/2020	28/02/2020

https://business.esa.int/funding/invitation-to-tender/enviromental-crimes

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WHO CAN APPLY?

- The Thematic Calls for Kick-start Activities are open to any company or organisation in participating Member States (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Sweden, Switzerland and the United Kingdom).

- Kick-start activities resulting from Thematic Calls are funded at 75% by the Agency for a maximum amount of 60,000 Euro per activity.

- The Thematic Calls for Kick-Start Activities follow a competitive tendering procedure. The evaluation criteria are published in the cover letter of the Call for Proposals.

- Germany, Luxembourg, Norway and the United Kingdom have pre-approved funding for this Kick-start theme. Switzerland is not supporting Kick-start Activities.

1. **Register** by completing online questionnaire on ESA-STAR Registration (minimum 'light registration') (https://esastar-emr.sso.esa.int)

2. **Download** the official documents (Invitation to Tender) and create a 'Bidder Restricted Area' via EMITS Reference AO 1-10108.http://emits.sso.esa.int

3. **Create** 'Bidder Restricted Area' in ESA-STAR

4. **Write your proposal** and obtain **Letter of Authorization** from your National Delegation. Contact information can be found **at:** https://business.esa.int/national-delegations.

5. **Submit** your proposal via 'Bidder Restricted Area' in ESA-STAR Tendering before the deadline.

Any issues with ESA STAR contact esait.service.desk@esa.int.

Proposal submission deadlines.

Environmental Quality: 2 Sep 2019 – 11 Oct 2019

Poaching and Trafficking: 11 Nov 2019 – 10 Jan 2020

Natural Resources: 13 Jan 2020 – 28 Feb 2020

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The Letter of Invitation to Call for Proposals is issued on EMITS (http://emits.sso.esa.int/emits/owa/emits.main) and includes:

- **Cover letter**

- **Appendix 1:**
  List of Thematic Calls for Ideas (including the calendar of the Thematic Call for Ideas and specific information on the themes)

- **Appendix 2:**
  Draft Contract

- **Appendix 3:**
  Tendering Conditions for Express Procurement Procedure - EXPRO/TC
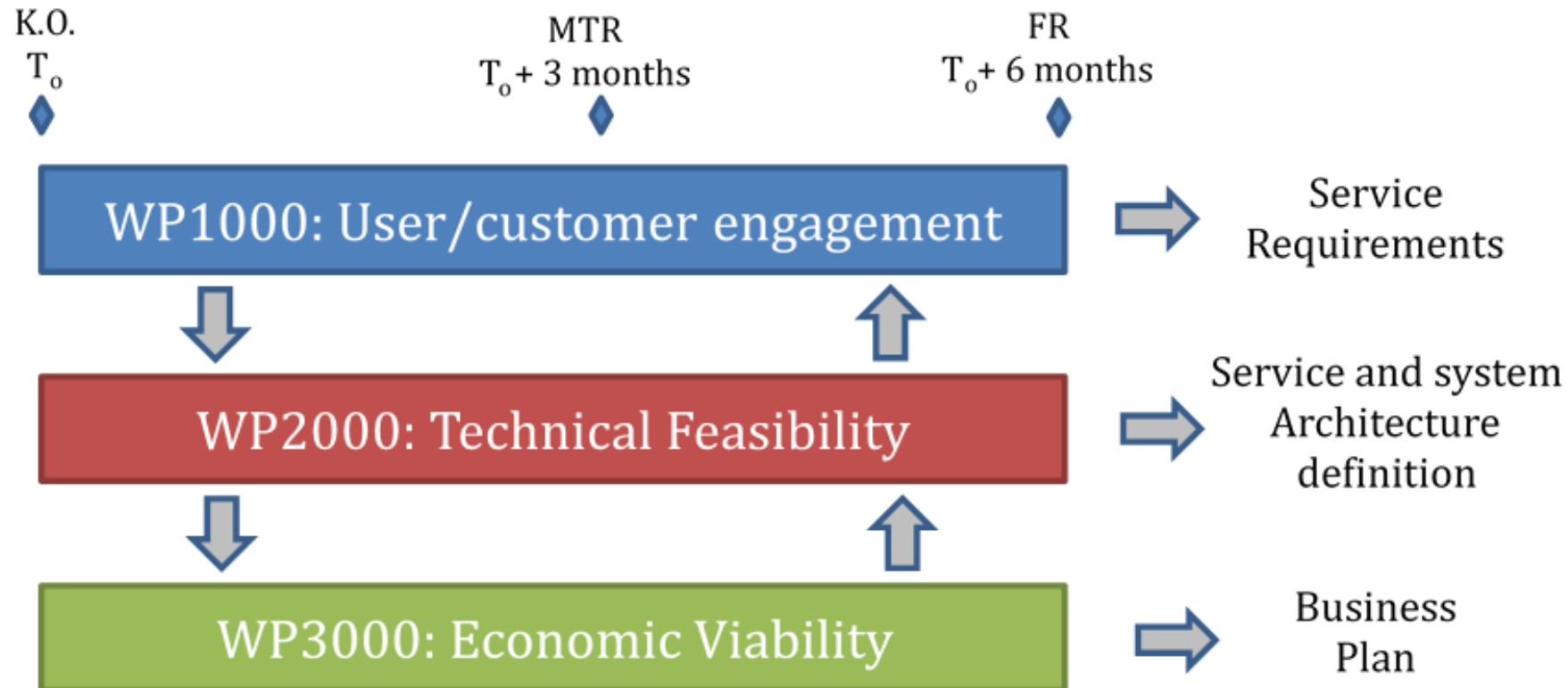
- **Appendix 4:**
  Proposal Template

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Your Proposal shall include the following information:

1) Executive Summary (max 1 page)

2) Business Potential (max 5 pages)

3) Technical Concept (max 5 pages)

4) Team and Resources (max 3 pages)

5) Management (max 4 pages)

6) Financials (max 2 pages)

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Kick-Start Activity

→ Study Tasks

→ Q&A

...And another thing

ESA, UNICRI and Satellite Applications Catapult are organising a workshop

Name

Space-Enabled Applications for the Mining Sector

Organised by

ESA Business Applications, UNICRI, and Satellite Applications Catapult

Date

28 November 2019

Location

ESA's UK site (ECSAT)

Register for free here:

https://www.eventbrite.com/e/space-enabled-applications-for-the-mining-sector-tickets-73089128551

→ **THANK YOU FOR PARTICIPATING**

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