Future EO1 Block 4 – EO Science for Society

Maximising the impact of European EO assets on society and fostering European competitiveness in the exploitation of all EO missions: delivering scientific excellence, pioneering novel applications, growing downstream sector, leveraging on digital innovation, exploring disruptive technologies, preparing for upcoming Sentinels.

Core Elements:

- Science
- Applications
- Industrial Competitiveness
- Digital Innovation

Cross-cutting Elements

- Sentinels User Preparation
- Foresight

Open Call on all Elements

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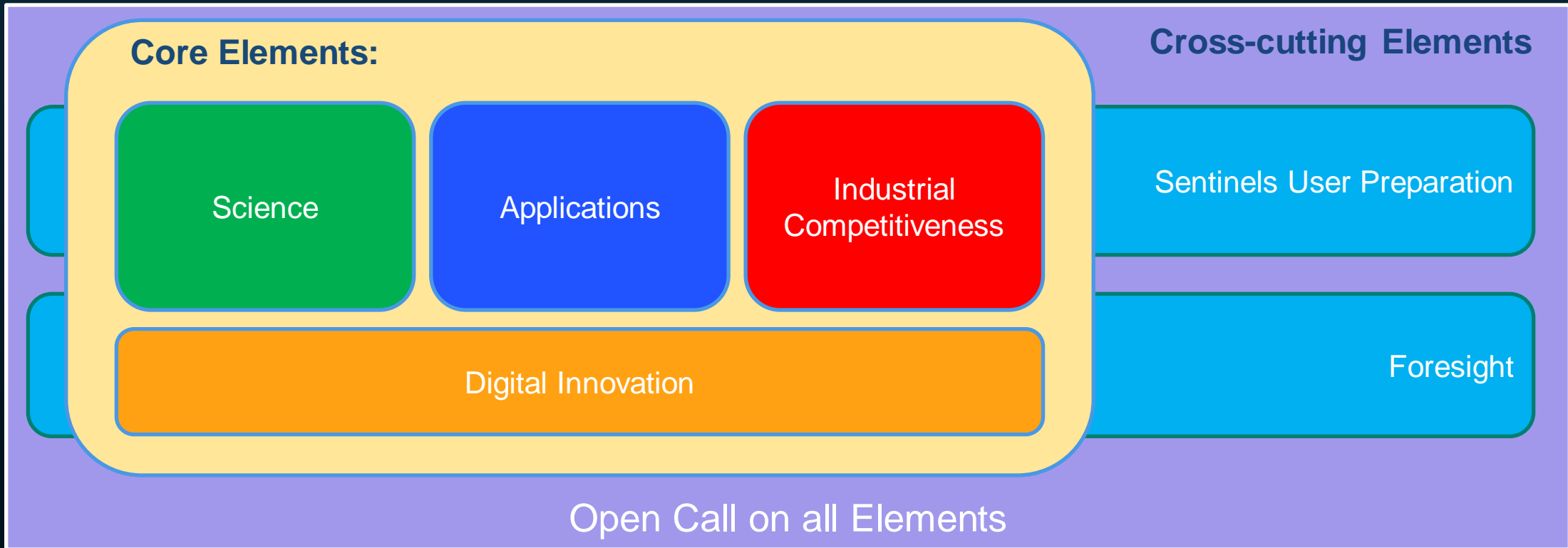
EO supports European countries & interests

Contributions to:

- Climate Action and the European Green Deal
- Earth Science
- Weather forecasting
- Agriculture & Fisheries
- Resource Management
- Air Pollution Monitoring
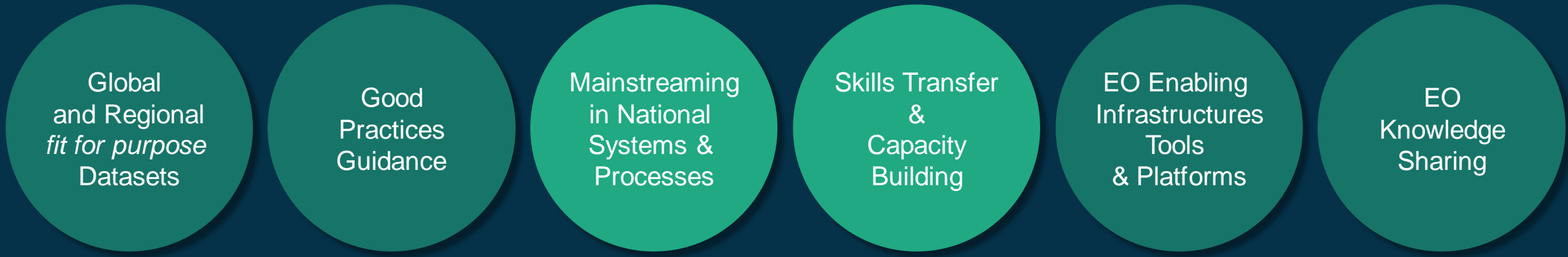- Alpine & Maritime
- Security
- …

+ industrial innovation, jobs and growth!

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International collaboration to scale up EO innovation for the full achievements of the 2030 Agenda on Sustainable Development
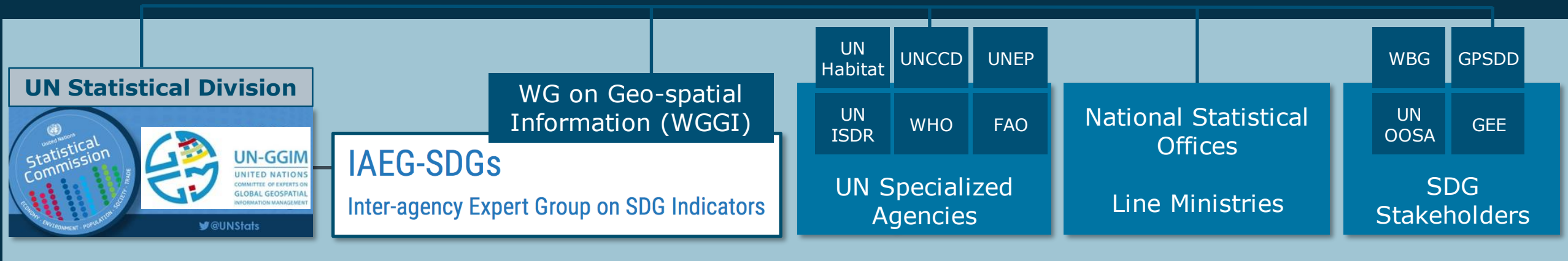
EO for Sustainable Development Goals

1. SDG PATHFINDERS

Development of innovative and robust EO methods, addressing new areas of EO uptake in SDG methodologies.

2. SDG SCALING-UP

Ramp up of EO methodological approaches to promote EO best practices across countries for synoptic monitoring and reporting on SDGs.

3. SDG ENGINES

Customisation of EO exploitation platforms to support cost-effective SDG implementation by countries (priority to European infrastructures such as TEP and DIAS).

4. SDG ENGAGEMENT

Stakeholder Engagement (scientific workshops, SDG MOOCs) to raise awareness and facilitate country appropriation.

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

Water Resources
KO Feb'23

Clean Energy
KO Dec'22

Transport & Infrastructure

Agriculture
KO Sep'22

Forest Management

Public Health

Marine Env. & Blue Economy
KO Jun'22

Urban Sustainability
KO Feb'22

Fragility, Conflict & Security
KO Jan'22

Climate Resilience
KO Dec'21

Disaster Resilience
KO Sep'21

esa

Partnerships

THE WORLD BANK
IBRD · IDA | WORLD BANK GROUP

ADB ASIAN DEVELOPMENT BANK

Partnerships Expansion

BANQUE AFRICAINE DE DÉVELOPPEMENT
AFRICAN DEVELOPMENT BANK

IFAD

IDB

gef

GREEN CLIMATE FUND

GDA AID

Agile EO Information Development

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ESA – Global Development Assistance – Agile EO information Development – Fragility Topic

USE CASES IN SCOPE OF THE PROJECT

e-geos · vito · DLR · HENSOLDT · JANES · CGI · GDA

UC1 – Security/ Assessment Briefings

End User: B. Murguet / F. OvandaMbele – World Bank

WB Project: P150999-Cameroon Transport Sector Development Project

Main Objective: EO/OSINT integrated analysis promptly warning on security risks (military movements, attacks, conflict zones) over streets under construction/maintenance in Northern Cameroon, preventing impacts on civilians.

UC2 – EO to Support Impact Evaluation

End User: B. Murguet / T. Bougna – World Bank

WB Project: P144852 - Impact Evaluation – Rural Access and Mobility P095003 - NG-Rural Access & Mobility Project-Phase 2

Main Objective: indicators of impacts produced by roads rehabilitation in Nigeria through EO-based analysis, detecting anomalies affecting rehabilitated infrastructures.

UC3 – Smallscale infrastructures Monitoring

End User: M. Malik, B.N. Khan – World Bank

WB Project: P151075 - Pakistan Community Support Project - PCSP

Main Objective: monitoring ongoing activities of construction/rehabilitation of small scale-infrastructures in Pakistan through EO data, prioritizing activities and needs.

UC4 – Land and Conflict

End User: Paul Prettitore - World Bank

WB Project: P128950 - Assessing the Nexus of Land Administration and Resilience to Disaster and Climate Risk

Main Objective: integrating EO/OSINT data to identify land grabbing indicators due to the ongoing conflict in Ukraine, as it is producing expropriation, transactions, forced land abandonment phenomena.

UC5 - Effects of Displaced Population on local Economy

End User: Jeffrey Tanner - World Bank

WB Project: P172830 - The Cox's Bazar Analytical Program

Main Objective: integrating EO/OSINT/AI data model to monitor the impact on local economy/welfare growth from refugee camps in Ukhia/Teknaf districts (Bangladesh), to better addressing budget.

UC6 – IGAD through the Emergency Response Program

End User: Kenneth Mwangi - World Bank

WB Project: P174546 - Emergency Locust Response Project

Main Objective: Employing EO data to monitor desert locust flow through eastern African regions, enhancing IGAD's inter-regional platform, as locusts affect agriculture, producing food insecurity.

UC7 - Population Movement

End User: Valeria Fabbroni, E. De Benedetti – ADB

ADB Project: TA 9986 Regional: Enhancing Differentiated Approaches in Context-Sensitive Situations

Main Objective: monitoring migration flow from North-Afghanistan/South-Tajikistan, monthly basis, to consistently allocate Tajikistan financial resources, as migration flow over these areas is relevant and confirm evidence from AKDN.

UC8 - Enhanced Country Performance Assessment

End User: Valeria Fabbroni, E. De Benedetti – ADB

ADB Project: TA 9986 Regional: Enhancing Differentiated Approaches in Context-Sensitive Situations

Main Objective: estimating an enhanced CPA indicator of 12 FCAS/non-FCAS countries (Timor Leste, Pakistan, Tajikistan, Afghanistan, Kyrgyz Republic, Uzbekistan, Lao PDR, Papua New Guinea, Cambodia, Buthan, Nepal) through EO/OSINT-based country level indicators in AI model, to allocate adequate financial resources.

New Activities – Embed EO and non EO information within Stakeholders Environment

Crimes Against Humanity

Multisource analysis related to structural damage/destruction to property, concealment of crimes, mass graves, proxies for presence of hostilities, forced labour camps, road block, check points, detours;
Exploitation of EO materials as scientific evidence

Terrorism and Organized Crimes

- Spatial visualization of abnormal activities related to terrorism and organized crime. Identification of patterns and changes in terrorism events and locations.
- Fusion of multi source data, including GIS data, Earth Observation imagery, structured and unstructured data, information from media and open sources.

Environmental Crimes and Illicit Trafficking

e-geos
AN ASI / TELESPAZIO COMPANY

UNODC
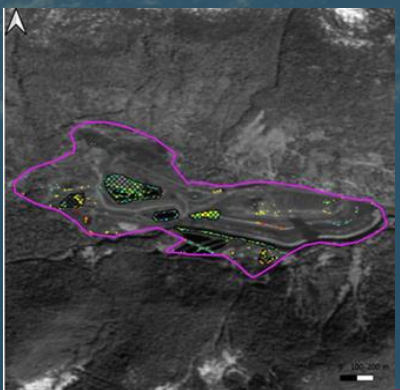
- Investigation related to crimes affecting the environment and illegal exploitation of resources,
- Investigation of international illegal trafficking and financial flows, and possible provide analysis of emerging patterns related to social, political or economic vulnerability

Cross Cutting Elements

UNICRI
United Nations
Interregional Crime and Justice
Research Institute

- Dedicated training activities – emerging technologies for threats assessment
- Link analysis embedding stakeholders'' datasets
- Exploring algorithm related to secure transmission of satellite imagery

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ESA- FAO- Plant T cooperation EO4Yemen Project

Scope: support small farmers and FAO (OCB) to characterize to characterize and optimize maize production in Zambia using ground, EO and weather forecast data

MAKE SPACE FOR EUROPE

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