

SDG 15.2.1 EO PATHFINDER: EO FOR SUSTAINABLE FOREST MANAGEMENT

# **D7.1 Promotional Materials**

ESA Contract No: 4000139583/22/I-DT

IABG Ref.: TA-B-005608

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15













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# **Web References**

Ref.	URL	Description	Last access
[URL01]	https://eo4sdg.github.io/eo4sdg-site	EO4SDG Website	2024/11/08
[URL02]	https://www.linkedin.com/company/eo4sdg-forest	EO4SDG LinkedIn Page	2024/11/08
[URL03]	https://www.youtube.com/@eo4sdg-forest-z3c	EO4SDG YouTube Channel	2024/11/08



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# Scope

This document summarises all the promotional materials and events at which the project has been presented.

# **Web Resources**

#### 2.1 Website

A website containing important information and links to the platform was created and hosted on GitHub. [URL01]



**E04SDG-Forest** 

The 2030 Agenda on Sustainable Development [RD-1] ratified by the UN General Assembly at the Sustainable Development Summit in New York on the 25th September 2015, is a transformative universal agenda on sustainable development that promotes shared economic prosperity, social development and environmental protection. In total 17 Sustainable Development Goals (SDGs) and 169 Targets [URL-4] have been adopted by the world leaders and are driving the agenda on sustainable development for the United Nations and all its Member States, until 2030 and beyond.



Home Landscape Metrics Forest Mask Forest Condition Forest Net Change Disturbance Erosion Risk Consortium

### **Forest Landscape Metrics**

Growing concerns over the loss of biodiversity have spurred land managers to seek better ways of managing landscapes at a variety of spatial and temporal scales. The developing field of landscape ecology has provided a strong conceptual and theoretical basis for understanding landscape structure, function, and change. Landscape ecology involves the study of landscape patterns, the interactions among patches within a landscape mosaic, and how these patterns and interactions change over time. In addition, landscape ecology involves applying these principles to formulate and solve real-world problems. Landscape ecology makes use of several methods, among which we find the use of landscape metrics. These are metrics that offer a numeric way of assessing all the processes stated above and are a great tool to understand and manage landscapes more sustainably.



## Further Development This project was funded by

On this page

Solution

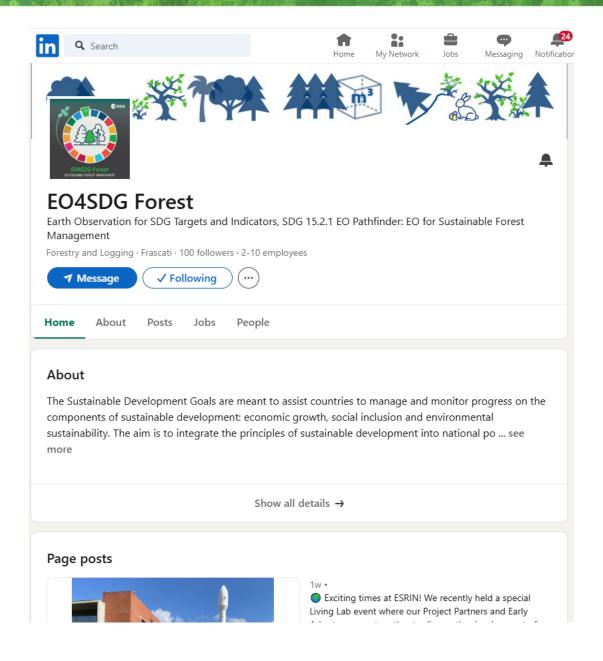
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### 2.2 LinkedIn

A linked in page for the project was created. [URL02]



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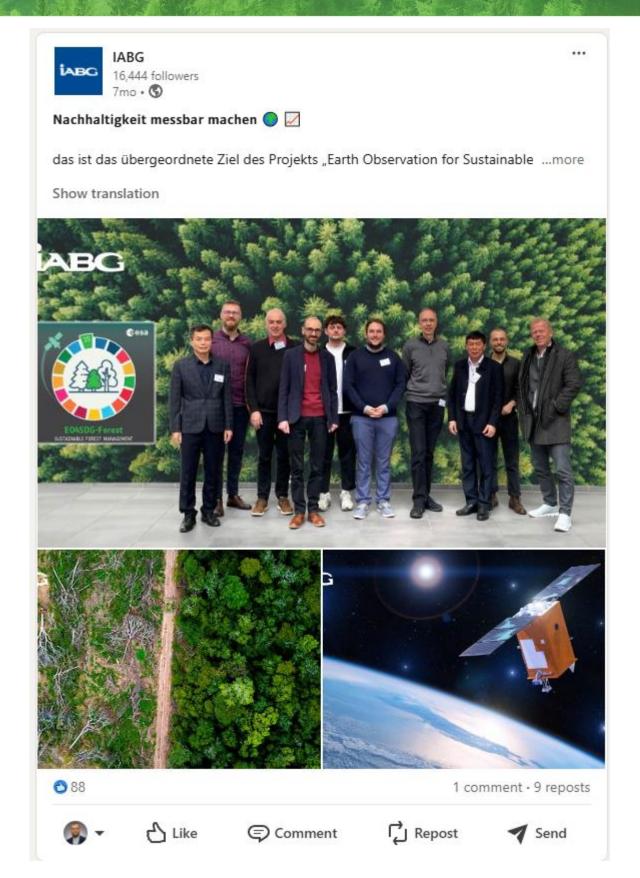






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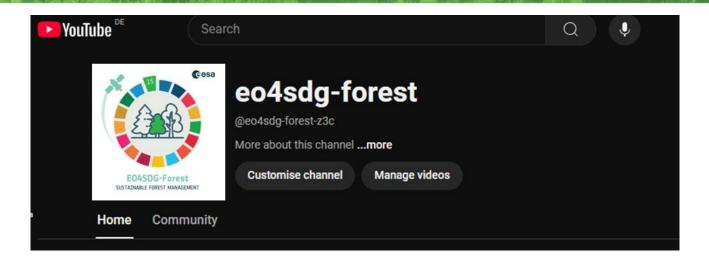


## 2.3 YouTube

As Part of D8.1. Guidance for Practitioners a series of videos were created and published on YouTube. A dedicated YouTube channel was created [URL03].



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# 3 Flyers

## 3.1 User Engagement

A series of flyers were produced at the start to promote the project. They were used during the User Engagement Phase to familiarise potential stakeholders with the goal of the project and the potential upsides for participation.





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UN SUSTAINABLE DEVELOPMENT GOALS (SDG) aim to assist countries to manage and monitor progress on the 3 key components of sustainable development: economic growth, social inclusion and environmental sustainability.

According to UN, a **ROBUST AND HIGH-QUALITY INDICATOR FRAMEWORK** for the SDGs requires a process that evolves with
the emergence of new technology or new data. or, when new
indicators are needed to better track progress on the targets.
Geospatial Information and Earth Observation, together with the
latest advances in big data analytics, offer great opportunities to **MODERNISE NATIONAL STATISTICAL SYSTEMS** and promote a
quantum leap in the capacities of countries to efficiently track
sustainable development in more detail.

Open EARTH OBSERVATION (EO) SATELLITE IMAGERY, with its global coverage and high observation frequency, prove essential in reporting important aspects of sustainable development and in particular the environmental dimension of the SDGs. The aim is to contribute to national statistical systems by significantly, reducing the monitoring costs with stabilized reporting processes.

Within the **GEO WORK PROGRAMME ACTIVITIES ON SDGs**, the European Space Agency (ESA) supports the development, showcasing and implementation of EO related solution development to increase granularity and precision of SDG indicators and related metrics.

The FUTURE EO-1 "EO for Sustainable Development Goals" line, of activities OR\_THE EUROPEAN SPACE AGENCY consists Heliangahin halva preafects! Or a series of react projects that aim at facilitating the uptake of EO solutions into national SDG monitoring frameworks. In partnership with the Food and Agriculture Organization (FAO), the custodian agency of SDG indicator 15.2.1, ESA funds the EO for Sustainable Forest Management project to develop and show-case innovative EO approaches for the derivation of indicators on the sustainable management of natural, seminatural and planted forests, addressing the changes in forest extent and conditions for use in national and global forest assessment.

The **USER-DRIVEN** approach is one of the principal characteristics of this programmatic line, aiming to fund development of high quality and innovative EO data products, methods and tools that respond to priority needs from SDG stakeholders.

Identified and committed Users, the **SDG EARLY ADOPTERS**, are user organisations with direct interest in the novel EO solutions that will be designed and developed during the 2 years of the project.

You are an EARLY ADOPTER? - YOUR BENEFITS will be

- Being part of the EO solution co-creation phase being INVOLVED IN THE DESIGN. (2023: User Uptake Phase)
- We will discuss with you the possible regional and national forest MONITORING STRATEGIES,
- You will participate in several SDG LIVING LABS
- You will support the definition & elaboration of the USE CASES, which may showcase your region (2024: User Uptake Phase)

What WE NEED to make this a success story:

- Provide INSIGHT into SDG-relevant forest monitoring and reporting,
- SHARE existing data (e.g., national data) able to support the development, production, validation, and quality assessment
- Provide your CRITICAL REVIEW on the EO solution products throughout the project (2 years) and for the Use Cases.

















UN SUSTAINABLE DEVELOPMENT GOALS (SDG) aim to assist countries to manage and monitor progress on the 3 key components of sustainable development: economic growth, social inclusion and environmental sustainability. The UN has established a range of processes for achieving SDGs and monitoring progress, with particular focus to supporting the least developed economies. A solid frame-work of indicators, and hence reliable statistical data, to measure, monitor and report SDGs progress, inform policies and ensure accountability of all stakeholders is needed.

According to UN, a ROBUST AND HIGH-QUALITY INDICATOR FRAMEWORK for the SDGs requires a process that evolves with the emergence of new technology or new data, or when new indicators are needed to better track progress on the targets. Geospatial Information and Earth Observation, together with the latest advances in big data analytics, offer great opportunities to MODERNISE NATIONAL STATISTICAL SYSTEMS and promote a quantum leap in the capacities of countries to efficiently track sustainable development in more detail.

Open **EARTH OBSERVATION SATELLITE IMAGERY**, with its global coverage and high observation frequency, prove essential in capturing important aspects of sustainable development and in particular the environmental dimension of the SDGs. These activities aim provide information ready to contribute to national statistical systems. It aims to significantly reduce the monitoring costs, stabilize processes and enable countries to meet their engagement to monitor & report progress on the SDG targets.

Within the GEO WORK PROGRAMME ACTIVITIES ON SDGS

the European Space Agency (ESA) supports the development, show-casing and implementation of EO related solution development to increase granularity and precision of SDG indicators and related metrics.

The FUTUREEO-1 "EO for Sustainable Development Goals" line of activities OF THE EUROPEAN SPACE AGENCY consists of a series of R&D projects that aim at facilitating the uptake of EO solutions into national SDG monitoring frameworks. In partership with the Food and Agriculture Organization (FAO), the custodian agency of SDG indicator 15.2.1, ESA funds the EO for Sustainable Forest Management project to develop and show-case innovative EO approaches for the production of indicators on the sustainable management of natural, semi-natural and planted forests, addressing the changes in forest extent and conditions for use in national and global forest assessment.

The **USER-DRIVEN** approach is one of the principal characteristics of this programmatic line, aiming to fund development of high quality and innovative EO data products, methods and tools that respond to priority needs from SDG stakeholders.

Identified and committed Users, the **SDG EARLY ADOPTERS**, are involved design and development of the solutions. SDG Early Adopters are user organisations with direct interest in the novel EO solution developed by the project, which foresee a clearly defined use of the output EO products/ solution in their SDG operational prac

EARTH OBSERVATION FOR SDG 15.1/2 Contribution to the National Reporting Chain

tices, and which are willing to participate to the design and development of the EO solution with committed resources as well as to support the related research and innovation activities. The Early Adopters will be able to collaborate with the project teams of experienced Earth Observation experts, as well as an Advisory Board containing experts from FAO as responsible institution. The entire process is enabled by the European Space Agency.



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

#### You are an EARLY ADOPTER? - YOUR BENEFITS will be:

- Being part of the EO solution co-creation phase being INVOLVED IN THE DESIGN, (2023: User Uptake Phase)
- We will discuss possible regional and national forest MONITORING STRATEGIES with you,
- You will participate in several SDG LIVING LABS
- You will support the definition & elaboration of the USE CASES, which may showcase your region (2024: User Uptake Phase)

What **WE NEED** to make this a success story:

- Provide INSIGHT into SDG-relevant forest monitoring and reporting,
- SHARE existing data (e.g., national data) able to support th development, production, validation, and quality assessment
- Provide your **CRITICAL REVIEW** on the EO solution products throughout the project (2 years) and for the Use Cases.



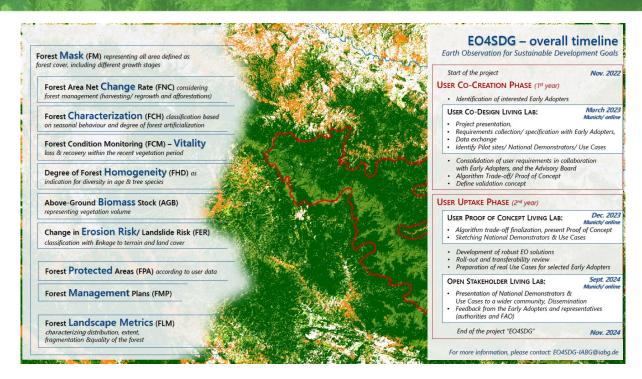






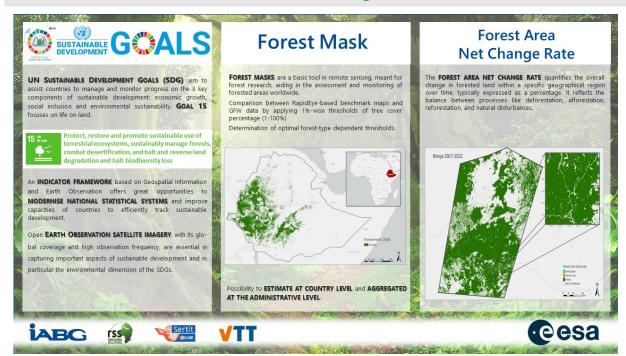


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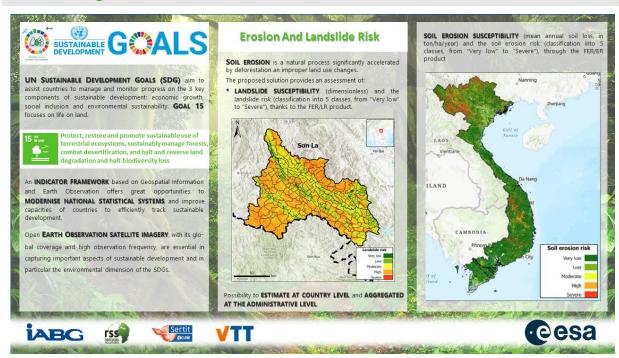
# 3.2 Product Flyers

### 3.2.1 Forest Mask (LM) & Forest Area Net Change Rate (FNC)



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### 3.2.2 Change in Erosion Risk / Landslide Risk (FER)



## 3.2.3 Landscape Metrics (FLM)



# 4 Events



Date: 2025/02/26

# 4.1 Living Labs

The second Living Lab was held in Munich, Germany with attendance from EA Vietnam. The third living lab was held in Frascati Italy.



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### 4.2 Conferences

## 4.2.1 Copernicus Netzwerk Büro

Poster shown at the Copernicus Netzwerk Büro 2023.



(1) IABG, Geospatial Solutions, Hermann-Reichelt-Straße 3, 01109 Dresden

UN SUSTAINABLE DEVELOPMENT GOALS (SDG) aim to assist countries to manage and

According to UN a ROBUST AND HIGH-QUALITY INDICATOR FRAMEWORK for the SDGs process that evolves with the emergence of new technology or new data, or when new are needed to better track progress on the targets. Geospatial Information and Earth in, together with the latest advances in big data analytics, offer great opportunities to MODERNISE NATIONAL STATISTICAL SYSTEMS and promote a quantum leap in the capacities of

#### EARTH OBSERVATION FOR SDG 15.1/2 15 IIII

PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECO-SYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS



Within the GEO WORK PROGRAMME ACTIVITIES ON SDGS, the European Space Agency development, showcasing and implementation of EO related solution deve ity and precision of SDG indicators and related metrics.

The FUTURE EO-1 "EO for Sustainable Development Goals" line of activities OF THE EUROPEAN

SPACE AGENCY consists of a series of R&D projects that aim at facilitating the uptake of £O solu-tions into national SDG monitoring frameworks. In partnership with the Food and Agriculture Organi-sation (FAO), the custodian agency of SDG INDICATOR 15.2.1, ESA funds the £O for Sustainable Forest Management project to develop and show-case innovative £O approaches for the derivation of indicators on the sustainable management of natural, semi-natural and planted forests, addressing the changes in forest extent and conditions for use in national and global forest assessment.

#### REPORTING PROCESS FOR THE GLOBAL FOREST RESOURCES ASSESSMENT (FRA)

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The reporting process for the GLOBAL FOREST RESOURCES ASSESSMENT (FRA) relies on contributions of collaborators and specialists providing the information to officially nominated national correspondents, reporting the official inational data on forest area to it APA. The data undermines a comprehensive review by FAD and national validation process before being aggregated within country reports, following a standardized FRA reporting format and commonly agreed definitions. Final submission to the United Nations Statistical Division is done by the APD's chief statisticians. To increase validity of the SDG content, improvement towards more granular indicators is of highest interest.



The **USER-DRIVEN** approach is one of the principal characteristics of this programmatic line, to fund development of high quality and innovative EO data products, methods and tools that re to priority needs from SDG stakeholders.

Identified and committed Users, the SDG EARLY ADOPTERS, are user greatisations with direct interest in the novel 60 solutions that will be designed and developed during the 2 years of the project. National authorities have the chance to actively participate in the EO solution co-creation phase by providing valuable input for the design of forestly related sub-indicators and metrics. The latter will be rolled out in selected NATIONAL DEMONSTRATORS and USE CASES to showcase their SDG LIVING LABS.

For more information, please contact: EO4SDG-IABG@iabq.de Linkedin: https://www.linkedin.com/company/eo4sdg-forest/

Cesa Project reference: Earth Observation for SDG Targets and Indicators, Lot-1, Project: SDG 15.2.1
FO Pathfinder: FO for Sustainable Parest Management (ESA Contract No. 4000139583/22/1-DT

SDG SUB-INDICATORS:

SDG 15.2.1

Forest Area Net Change Rate (FNC)



Consideration of forest management (incl. harvesting/regrowth/thinning) + afforestation

Above-Ground Biomass Stock (AGB)



Biomass according to Vegetation volume



Forest Protected Areas (FPA)

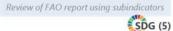


Forest Management Plans (FMP) GIS analysis



Forest Management Certification Schemes (FCS)





SDG ADDITIONAL INDICATORS/ METRICES: SDG 15.\*.\*



Forest Characterization (FCH)



= classification based on seasonal forest behaviour degree of forest artificialization FCH-DLT & FCH-ART

Forest Condition Monitoring (FCM) - Vitality



= identification of natural/ man-made vitality loss (cut/thinning/...) & recovery

Degree of Forest Homogeneity (FHD)



= classification based on seasonal forest behaviour + tree homogeneity

Change in Erosion Risk / Landslide Risk (FER)



= classification based forest land cover +

Landscape Metrices (FLM)



GIS-analysis in coordination with EA

- · Forest fragmentation
- Forest compactness (total forest edge and forest core area)
- Forest isolation









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## 4.2.2 KWF Tagung

Promotional poster shown during a forestry fair in Thuringia 2024.







Date: 2025/02/26

### 4.2.3 Intergeo

The project was presented at Intergeo 2024



Dr. Jörg Schäfer reposted this

•••



#### Felicitas Bellert • 1st

Erfahrene interdisziplinäre Projektleiterin mit hoher Beratungskompetenz zu Them... 4w • 🕥

We are looking forward to welcome you at **#IABG** Geospatial Solutions booth at **#INTERGEO** in

Booth F3.034 / 24-26 September 2024

This year's focus topics are

#AI in Earth Observation #Green Transition #Copernicus #CEMS &

#riskmanagement - #disasterrisk - #ESA #cleanenergy - #forestry -

#utilitymapping - #rawmaterials and uxo analysis.

https://lnkd.in/dwspZ8pz

