



Open-Earth-Monitor GLOBAL WORKSHOP 2024

- PROGRAM -



Day 1: Wednesday, October 2, 2024

Time	Theatre Hall <i>(Keynote and oral talks)</i>	Maria Theresia Seminar Room <i>(Oral talks and workshops)</i>	Wodak Room (IIASA) <i>(Workshops)</i>	Raiffa Room (IIASA) <i>(Workshops)</i>
9:00 - 9:45	REGISTRATIONS In the Foyer Theatre			
9:45 - 10:00	“Welcome Plenary” by Steffen Fritz (IIASA) — Keynote: “The Role of Earth Observation for the European Bauhaus Initiative” by John Schellnhuber (IIASA) — “The Open-Earth-Monitor Project” by Tomislav Hengl (OGH)			
10:00 - 10:45				
10:45 - 11:00				
11:00 - 11:30	COFFEE BREAK			
11:30 - 12:00	Keynote: “10 years of Global Forest Watch – from data to impact” - Elizabeth Goldman (WRI)			
12:00 - 12:20	“Monitoring livestock and agricultural systems: An ensemble approach based on data harmonization” by Leandro Parente (OGH) — “Assessing forest disturbance dynamics and drivers using radar satellite data” by Johannes Reiche (WUR)	“Quantifying the (mis)match between in-situ and satellite time series: the case of eddy covariance flux observations” by Daniel E. Pabon-Moreno (MPG) — “WorldCereal: a dynamic open-source system for global-scale, seasonal, and reproducible crop mapping” by Kristof Van Tricht (VITO)		Workshop 45: “MeteoEurope1km: a high-resolution daily gridded meteorological dataset for Europe for the 1961–2020 period” by Aleksandar Sekulić (BG AC)
12:30 - 12:50				
13:00 - 14:30	LUNCH BREAK In the Foyer Theatre			
14:30 - 14:50	“Mapping land use management in Europe using remote sensing, in situ data and statistical information” by Linda See (IIASA) — “High-resolution spatial information on livestock density and grassland”	“Assessing population exposure to air pollution: A multi-pollutant indicator framework for OECD countries and partners” by Mikaël Maes, Ivan Haščič (OECD) — “User and producer perspectives for”		
15:00 - 15:20				

	management in Europe” by Ziga Malek (IIASA)	FAIR environmental data” by Katja Berger (GFZ)		Workshop 45’: “Streamlining Earth Observation Data Sharing with the zen Python Library” by Rolf Simoes (OGH) Starts at 15:15
16:00 - 16:30	COFFEE BREAK			
16:30 - 16:50	“Actual and potential habitat and vegetation type mapping to support conservation science” by Martin Jung (IIASA)	Workshop 45’: “Data Spaces: the EC solution for environmental, biodiversity and climate challenges. Different approaches on multisource data, semantics, FAIRness and sovereignty” by Joan Maso, Ivette Serral (CREAF)		Workshop 45’: “The nrt Ecosystem: A Unified Approach to Forest Disturbance Monitoring” by Kenji Ose (JRC)
16:50 - 17:10	“Land cover change and biodiversity pressures: A global analysis leveraging EO data” by Mikaël Maes, Ivan Hašič (OECD)	Workshop 45’: “Geo-AutoML with Scikit-map” by Leandro Leal Parente (OGH)		
17:10 - 17:30	“Dynamic Flood Susceptibility Assessment: Harnessing High-Resolution Data for Effective Risk Reduction” by Hamidreza Mosaffa (CNR)	Starts at 17:15		
18:00-19:00	POSTER SESSION / NETWORKING In the Foyer Theatre “Landscape-scale And Spatially Explicit Representation of tropical vegetation dynamics and ecosystem carbon stocks (LASER)” by Florian Hofhansl (IIASA) — “Exploring additional in-situ measurements for the integration of eddy covariance system observations with remote sensing time series” by Simone Sabbatini (CMCC) — “A European Air Quality Monitor” by Brian Pondi (IFGI) — “Satellite-based maximum entropy modelling for identifying potential soil microplastics hotspots” by Bruno Čaleta (OIKON Ltd.) — “Ground measurements and in-situ observations from the OEMC project for the support of environmental policies and the benefit of society” by Simone Sabbatini (CMCC) — “Assimilating Leaf Area Index and Soil Moisture from Optical and SAR Data into the WOFOST Model to Improve Maize (Zea mays L.) Yield Estimation” by Gebeyehu A. Zeleke (DBU) — “EO Exploitation Platform Common Architecture” by Garin Smith (Telespazio) — “Satellite-based methane discovering and monitoring: Revolutionizing air pollution control” by Santiago Vargas (UNAL), Maria Fernanda González (UNER) — “The interoperable alternative map browser for the datasets produced in OEMC” by Joan Maso, Imma Serra (CREAF) — “Integrating different remote sensing products to produce high spatial and temporal snow estimates in the cloud” by Valentina Premier (EURAC) —			

	<p align="center">“The evolution of the OSS4gEO, a FOSS4G resources platform initiative” by Codrina Maria Ilie (Terrasigna)</p> <p align="center">—</p> <p align="center">“Optimizing UAV Data processing for pattern classification with CNN on low to moderate-quality imagery” by Linara Arslanova (Friedrich-Schiller University of Jena)</p>
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Day 2: Thursday, October 3, 2024

Time	Theatre Hall <i>(Keynotes and oral talks)</i>	Maria Theresia Seminar Room <i>(Oral talks and workshops)</i>	Wodak Room (IIASA) <i>(Workshops)</i>	Raiffa Room (IIASA) <i>(Workshops)</i>
9:00 - 9:30	Keynote: “Open data, open science and open platforms: way forward with Earth Observation in the actual climate crisis” by Inge Jonckheere (ESA ESRIN)			
9:30 - 10:00	Keynote: “Towards a multi-frequency SAR datacube for global monitoring of dynamic land surface processes” by Wolfgang Wagner (TU Wien, EODC)			
10:00 - 10:30	Keynote: “Can Brazil achieve zero deforestation in Amazonia?” by Gilberto Camara (INPE)			
10:30 - 11:00	COFFEE BREAK			
11:00 - 11:30	Women in EO and Policy by Katya Guzman (IIASA)			
11:30 - 11:50	“A Multi-Source Remote Sensing Approach for Large-Scale Mapping of Other Wooded Lands” by Nathália Teles (LAPIG)	Workshop 45: “Big Data Analytics in Open Geo Hub Cloud using SITS” by Gilberto Camara (INPE), Rolf Simoes (OGH)	Workshop 45: “Global Forest Watch: the latest data and tools to better protect forests” by Myroslava Lesiv, Elise Mazur, Elizabeth Goldman (WRI)	
11:50 - 12:10	“Multi-decadal trend analysis and forest disturbance assessment of European tree species: concerning signs of a subtle shift” by Carmelo Bonannella (OGH)			

12:10 - 12:30	<p>“SEEA carbon accounting using Earth Observation datasets and its comparison with carbon accounts following the UNFCCC framework” by Arnan Araza (WUR)</p>			
12:30 - 13:30	<p>LUNCH BREAK In the Foyer Theatre</p>			
13:30 - 13:50	<p>“Large-scale EO processing with xcube on CDSE” by Pontus Lurcock (Brockmann Consult)</p>	<p>“Systemic human-biosphere-atmosphere monitoring and diagnostics” by Gregory Duveiller (MPG)</p>	<p>Workshop 45’: “Monitoring Deforestation-related land use change and Carbon Emissions for EUDR and climate policies” by Robert Masolele (WUR)</p>	
14:00 - 14:20	<p>—</p> <p>“Time-series reconstruction of global scale historical Earth observation data by seasonally weighted average” by Davide Consoli (OGH)</p>	<p>—</p> <p>“Spatiotemporal prediction of SOCD for Europe (2000–2022) in 3D+T” by Xuemeng Tian (OGH)</p>	<p>—</p> <p>Workshop 45’: “Playing the water cycle game: data from space for flood risk mitigation and better-managing water resources” by Luca Brocca (CNR)</p> <p>Starts at 14:15</p>	
15:00 - 15:30	<p>COFFEE BREAK</p>			
15:30 - 15:50	<p>“Exploring the biophysical impacts of potential changes in tree cover in Africa” by Gregory Duveiller (MPG)</p>	<p>“The GEO Trees Project” by Dmitry Shchepashchenko (IIASA)</p>	<p>Workshop 45’: “Spatiotemporal Machine Learning: fitting models and generating predictions using time-series data” by Tomislav Hengl (OGH)</p>	
16:00 - 16:20	<p>—</p> <p>“ForestNavigator: combining forest monitoring and modelling for assessing policy pathways towards EU climate neutrality” by Fulvio Di Fulvio (IIASA), Andrey Lessa Derci Augustynczik (IIASA), Petr Havlik (IIASA)</p>	<p>—</p> <p>“Drought monitoring across scales with open soil moisture remote sensing data” by Jaime Gaona (CNR)</p>	<p>—</p> <p>Workshop 30’: “Accessing global scale, historical and complete Landsat data” by Davide Consoli (OGH)</p> <p>Starts at 16:15</p>	
17:00-18:30	<p>Guided tour to Laxenburg Park (optional)</p>			
18:30-21:00	<p>SOCIAL EVENT</p>			

Day 3: Friday, October 4, 2024

Time	Theatre Hall <i>(Keynotes and oral talks)</i>	Maria Theresia Seminar Room <i>(Oral talks and workshops)</i>	Wodak Room (IIASA) <i>(Workshops)</i>	Raiffa Room (IIASA) <i>(Workshops)</i>
9:00 - 9:30	Keynote: “Implementing Open EO Knowledge and the journey towards users engagement” by Paola De Salvo			
9:30 - 10:00	Keynote: “Rethinking the grid: Towards less distorted imagery and AI” by Daniel Loos (MPG)			
10:00 - 10:30	Keynote: “EO for Policymaking in the EU” by Marc Dowell (EC JRC)			
10:30 - 11:00	COFFEE BREAK			
11:00 - 11:20	“Deriving policy-relevant geodata from satellite images: lessons learned in the GEO.INFORMED project” by Stien Heremans (KU Leuven)	Workshop 45’: “Citizen Science Mobile App and Data in Support of Forest Mapping: Laxenburg Park Campaign” by Milutin Milenkovic (IIASA)		
11:30 - 12:00	“Global Trait-Based Vegetation Monitoring” by Felix Specker (ETH Zurich)	Workshop 45’: “Inferring spatiotemporal dynamics of mosquitoes in Italy using machine learning” by Carmelo Bonannella (OGH), Daniele Da Re (U.Trento) Starts at 11:45		
12:30 - 14:00	LUNCH BREAK In the Foyer Theatre			
14:00 - 14:20	“Mapping Cocoa Farms Across Pantropical Regions Using High-Resolution Satellite Imagery and Deep Learning” by Robert Masolele (WUR)	Workshop 30’: “High-Resolution Gross Primary Productivity: Modeling and Mapping Dynamics” by Serkan Isik (OGH)		
14:20 - 14:40	“EarthCODE – A FAIR Open Science environment for the Earth sciences” by Garin Smith (Telespazio)	Workshop 30’: “Using GRASS, SAGA, and Whiteboxtool to map global high-resolution land relief parameterization adopting Equi7 projection system” by Yu-Feng Ho (OGH) Starts at 14:30		
14:40 - 15:00	“Closing plenary”			

END

Session types

1-Keynotes: These presentations will be hosted by our special guests, who will provide a 30-minutes talk. For this year's edition, we will have representatives from the European Space Agency (ESA), the Max Planck Institute, the EU Joint Research Agency (JRC), ETH Zürich and more.

2- Workshops: The focus of the workshops is open-source software and methods in support of European policies and decision-making. This will be a stage for practical sessions hosted by one or more presenters, who will guide you through new methods and tools. **The duration of each session is between 30-45 minutes.**

3- Oral talks: Some of the expected topics will be the research and application of geospatial technologies in various fields including governance, industries and in the public sector. This year we will focus also on the role of user communities and corresponding use cases in the fields of Forest & biodiversity; Soil, water & agriculture, and Climate & health. **The duration of each talk is 20 minutes.**

4- Poster presentations: **The author(s) of each poster will be able to give a 5 minutes presentation**, which this year revolves around the topics of Forest & biodiversity; Soil, water & agriculture, and Climate & health in the context of open-source tools and Machine Learning technologies.