GROUP ON EARTH OBSERVATIONS

2026 GEO SYMPOSIUM REPORT

26–27 May 2026

Geneva, Switzerland



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Citation
2026 GEO Symposium Report, GEO Secretariat

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ABOUT THE 2026 GEO SYMPOSIUM



Symposium in Numbers

384 attendees



64 countries



149 organizations



2 town halls



26 community events



14 showcases



14 posters



171 speakers

Symposium on Social Media

The Symposium generated substantial engagement among participants and wider audiences. The 2026 GEO Symposium and GEO-21 Plenary communications campaign, which ran from 7 May to 10 June 2026, shared moments and insights from the Symposium across GEO's digital channels, extending GEO's reach to new audiences while strengthening connections across the GEO community.

35
days of engagement
during the 2026 GEO Symposium and GEO-21 Plenary communications campaign

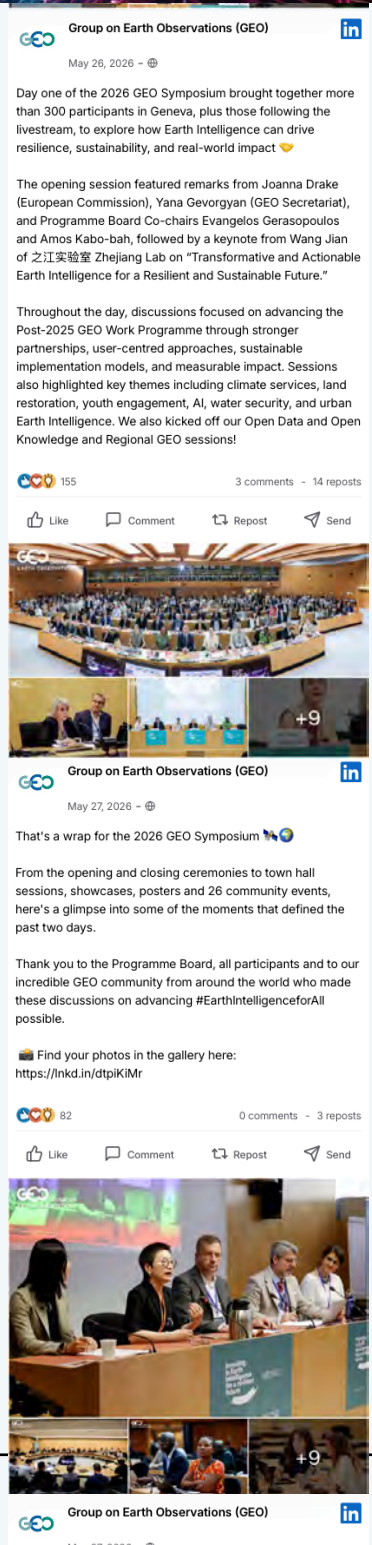
58,500
impressions
across LinkedIn and X

24,000
unique viewers
on LinkedIn

24%
interaction rate
on LinkedIn, representing the proportion of impressions that resulted in a click, reaction, comment, share, or follow

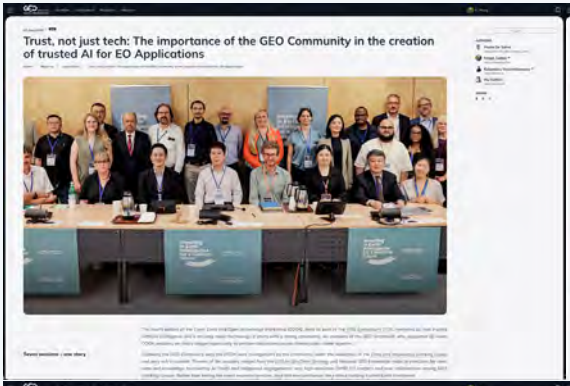
600
new followers
on LinkedIn

250
mentions
of GEO, the hashtag #EarthIntelligenceforAll, or the 2026 GEO Symposium and GEO-21 Plenary from other accounts



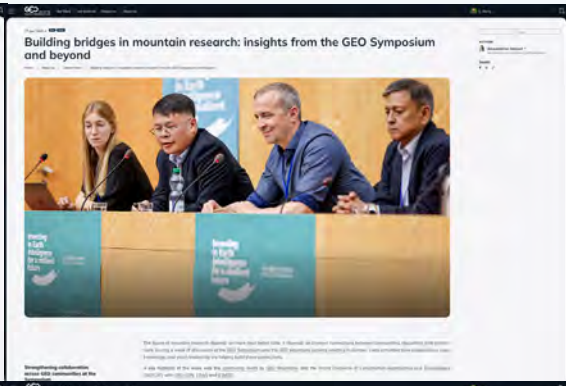
Symposium in Blog Posts

Eight GEO community-led blog posts, published in the GEO News section, captured perspectives from across the programme. Covering topics from trusted artificial intelligence and water security to regional action, Indigenous engagement, and mountain research, the posts extended the Symposium's discussions to a wider audience and helped carry its momentum forward.

















Introduction

As one of GEO's two flagship global events, the GEO Symposium brings together governments, space agencies, research organizations, private-sector innovators, development partners, and other stakeholders for scientific, technical, policy, and partnership discussions to advance the implementation of the GEO Work Programme.

Held under the theme of "Investing in Earth Intelligence for a Resilient Future", the 2026 GEO Symposium explored how Earth Intelligence with greater investment can drive transformative, resilient solutions for people and the planet. The Symposium took place on 26-27 May 2026 at the headquarters of the World Meteorological Organization in Geneva, Switzerland, followed on 28 May by the GEO-21 Plenary. Nearly 400 participants attended the Symposium in person, with additional participants joining online.

The 2026 Symposium marked an important point in GEO's transition from strategy to delivery. In 2023, GEO adopted its new Post-2025 Strategy, *Earth Intelligence for All*, in Cape Town, South Africa. The Strategy set a new direction for GEO: a world where trusted Earth intelligence is universally accessible and empowers society to achieve a sustainable future. In 2024, the GEO community gathered in Hangzhou, China to co-design the Post-2025 GEO Work Programme, which translates the strategy into action. The GEO Work Programme was then approved by the GEO Plenary in Rome, Italy in 2025. One year later, the GEO community gathered in Geneva to shift the focus from design to delivery, examining the partnerships, investment models, and governance arrangements needed to scale and sustain actionable Earth Intelligence.





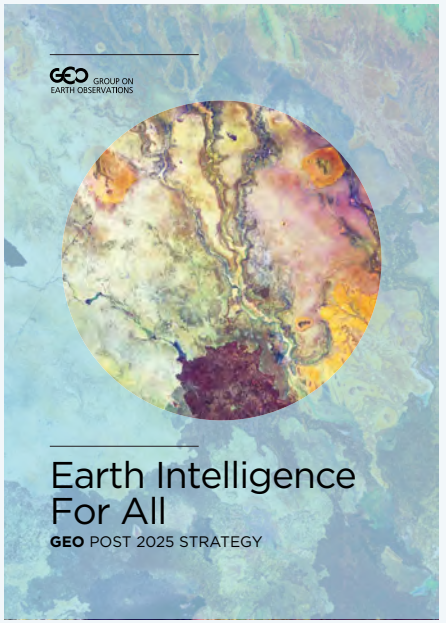
GEO Work Programme and the GEO Community

The GEO Work Programme is the primary instrument through which GEO facilitates collaboration among its Members, Participating Organizations, Associates, and other partners, bringing together joint activities aimed at realizing GEO's mission and vision.

The Post-2025 GEO Work Programme is designed to move GEO beyond primarily facilitating access to Earth observation data toward co-producing user-driven, integrated products and services that inform decisions and empower society. It is organized around three categories: Conveners, Research-to-Operations (R2O) Pipeline Activities, and Enabling Mechanisms. Conveners bring communities together around shared priorities, while Enabling Mechanisms provide the data, knowledge, infrastructure, and coordination needed across the Work Programme.

The R2O pathway supports products and services as they progress from early proof of concept through validation to operational delivery: from Pilots to Initiatives and Flagships, and ultimately to Mature Flagships once sustained operational capacity has been achieved. This structure is intended to help promising solutions demonstrate their value, attract investment, and progress towards sustainable operations.

The Post-2025 GEO Work Programme consists of 49 activities and covers a wide range of focus areas: agriculture and food security; climate, energy, and urbanization; ecosystems, biodiversity, and carbon management; one health; water and land sustainability; weather, hazard, and disaster resilience; community impact; and open knowledge, data, and infrastructure. Four Regional GEOs - AfriGEO (Africa), AmeriGEO (Americas), AOGEO (Asia-Oceania), and EuroGEO (Europe) - complement the global activities of the GEO Work Programme by translating them into regional and national action.







Symposium Programme

The Symposium Programme Committee shaped the event programme by defining the session formats and selection criteria, designing the town halls, and evaluating proposals submitted by the GEO community.

Programme Board



Guifei Jing
Principal



Yong Pang
Alternate



Alexis Foussard
Principal



Thierry Ranchin
Alternate



Mark Dowell



Karel Charvat



Justyna Nicinska
Programme Board
Co-Chair



The programme combined several complementary formats. The opening and closing sessions set the strategic context and drew together key messages. Town halls addressed cross-cutting questions through moderated discussion, while community events enabled focused exchange on specific thematic, regional, and technical priorities. Showcases featured concise demonstrations of tools, services, and results, and posters provided an additional platform for sharing work from across the GEO community.

Regional GEOs



Peninah Njogu
AfriGEO



Elliott Matthews
AmeriGEO

Data and Knowledge Working Group



Helen Glaves
GEO Data and Knowledge Working Group



Marie-Françoise Voidrot
GEO Data and Knowledge Working Group

GEO Secretariat



Wenbo Chu
GEO Secretariat



Paola De Salvo
GEO Secretariat



Kalamkas Yessimkhanova
GEO Secretariat



Madeeha Bajwa
GEO Secretariat



Sabrina Wong
GEO Secretariat

OPENING SESSION



Opening Session

RECORDING



Moderators and Speakers



Wenbo Chu
GEO Secretariat
Moderator



Joanna Drake
European Union
Speaker



Yana Gevorgyan
GEO Secretariat
Speaker



Evangelos Gerasopoulos
Programme Board
Speaker



Amos Kabo-Bah
Programme Board
Speaker



Wang Jian
Zhejiang Lab
Speaker



The opening session of the 2026 GEO Symposium set the tone for two days of in-depth discussion and insightful exchange. Moderator Wenbo Chu, Work Programme Officer at the GEO Secretariat, welcomed participants by noting three distinctive features of this edition: the integration of the Open Data Open Knowledge (ODOK) Workshop into the Symposium for the first time, the immediate follow-on of the GEO Plenary, and a programme shaped substantially by community proposals and community-led organization.

Joanna Drake, GEO Lead Co-Chair and Deputy Director-General of the European Commission's Directorate-General for Research and Innovation, delivered the opening remarks. She called on participants to harness the energy of the gathering to demonstrate the transformative power of Earth Intelligence in practice - not as an abstract vision, but as tailored and locally relevant information delivered to people who need it. She framed the days ahead as an opportunity to present the results of the GEO Work Programme, to strengthen the mechanisms that support its delivery, and to celebrate milestones including the 15th anniversary of GEO Global Agricultural Monitoring (GEOGLAM). She highlighted the richness of the programme ahead, from town halls and community events to corridor conversations, and underscored that the GEO community was already working toward the future that was shaped together.





GEO Secretariat Director Yana Gevorgyan opened by engaging participants with a series of questions: Who was attending their first GEO Symposium? Who had never missed a Symposium? And who had travelled the furthest? Her last question revealed that a participant had travelled more than 60 hours from Fiji, a moment that underlined the breadth and diversity of GEO's ever-growing community. She recalled the 2024 GEO Symposium in Hangzhou, China, where the community was co-developing GEO's Post-2025 GEO Work Programme, and challenged participants to consider over the two days ahead whether the community was thinking big enough to deliver on the strategy it had set in motion. She placed particular emphasis on demonstrating impact - not only through what the Work Programme produces, but also through how its value is communicated to those who invest in it, and how incremental outcomes are defined and built upon to achieve lasting change.



The Programme Board Co-Chairs then set the scene for the sessions to come. Co-Chair Evangelos Gerasopoulos traced GEO's journey across its first two decades, moving from data access and service provision to "Earth Intelligence for All". He reinforced the Post-2025 GEO Work Programme as the vehicle for the next stage of that journey, highlighting the research-to-operations pipeline embedded in the programme structure, the monitoring and evaluation framework being developed to help activities define and communicate their impact, and the newly endorsed GEO Innovation Fund - the first of its kind within GEO - designed to accelerate innovation across the GEO Work Programme. Co-Chair Amos Kabo-Bah then walked participants through the programme, highlighting the integration of ODOK sessions, Regional GEO sessions, and the interactive and collaborative formats embedded throughout.







The opening session concluded with a keynote address titled "Transformative and Actionable Earth Intelligence for a Resilient and Sustainable Future", delivered by Wang Jian, Director of Zhejiang Lab and Founder of Alibaba Cloud. He traced the parallel histories of artificial intelligence and Earth observation - both emerging in the late 1950s, yet only converging in the past decade - and argued that Earth Intelligence is now possible because of advances in the scale of available data, the capabilities of models, and computing power. He illustrated this point through his team's work on the Global Heat Resilience Service, applying artificial intelligence to satellite imagery to generate 10-metre-resolution urban temperature maps at low cost. He closed with a vision of Earth Intelligence not merely as a technological advance but as a means of global equity: data from space transcends boundaries, and the insights it generates should reach every corner of the Earth.



TOWN HALLS



RECORDING

Exploring New Models for Implementing the Post-2025 GEO Work Programme

Purpose

This town hall examined how GEO Work Programme (GWP) activities are being designed, implemented, evaluated, and sustained under the new implementation models introduced with the Post-2025 GWP. Bringing together a Flagship (GEO Land Degradation Neutrality [GEO-LDN]), an Initiative (GEO Wetlands), and a Pilot (Global Heat Resilience Service [GHRS]), alongside the Programme Board, the session reflected on the journey of learning since the GEO Post-2025 Strategy was launched. The discussion was framed around co-design with users, multi-stakeholder partnerships, and long-term sustainability supported by credible monitoring, evaluation, and learning. A Slido poll invited the audience to indicate how the private sector is currently engaged in the GWP to inform future Programme Board deliberations.





Moderators and Speakers



Andiswa Mlisa
SPC
Moderator



Antje Hecheltjen
GEO-LDN
Speaker



Jerker Tamelander
GEO Wetlands
Speaker



Martyn Clark
GHRS
Speaker



Evangelos Gerasopoulos
Programme Board
Speaker

Key Questions Posed to Panelists

The panel was asked to reflect on three questions. First, co-design with users is widely recognized as essential but difficult to operationalize; how can GWP activities move beyond consultation toward genuinely user-driven design and decision-making? Second, as GWP activities increasingly seek partnerships across public, non-governmental, and private sectors, what governance and collaboration modalities are needed to maintain trust, transparency, and shared ownership? Third, many activities are successful during their initial funding phase but struggle to sustain momentum afterwards; what can activity teams proactively do to secure long-term operational, organizational, and financial sustainability, and how does this connect to results frameworks and resource mobilization? The floor was then opened for participants to share their own experiences across the same three areas.













Key Themes Emerging from the Discussion

The discussion highlighted that legitimacy and user ownership may come from different sources depending on the activity. GEO Wetlands and GEO-LDN anchor their work in formal convention mandates and governing bodies that define user needs and provide accountability. GHRS, whose target constituency is around 15,000 heterogeneous city governments and which has no equivalent mandate, instead built legitimacy through sustained co-design with city networks and iterative prototyping. From the Programme Board perspective, GWP activities were asked to shift from a linear, provider-led model - surveying or assuming needs, building services, and then marketing a finished portfolio - toward an iterative, user-driven approach centred on understanding users' workflows and co-creating solutions with them from the outset.

The panel agreed that effective partnerships depend on clearly defined roles and structures, and speakers described layered models spanning countries, sectors, the Earth observation (EO) community, and convention secretariats. Working with technology partners was noted as fast-moving and productive, but as requiring clear memoranda of understanding, provisions for intellectual property, and independent scientific oversight so that the credibility of the underlying science keeps pace with the sophistication of the tools. Several panelists called for outreach beyond traditional disciplines, particularly toward social and behavioural sciences, and for longer-term relationships with in-country partners.

The discussion closed by emphasizing the importance of sustainability for initiatives and the results they achieve. Embedding products and services within permanent institutions, national programmes, and convention secretariats reduces dependence on dedicated funding. Where no such mandate exists, sustainability must be explored through feasibility assessments on core service features, operating costs, and funding models. Panelists noted the persistent gap between the outputs that an activity controls and the outcomes that depend on political commitment and uptake by others. In this context, they welcomed the resource mobilization and impact assessment toolkits as practical resources to support GWP activity teams.

BLOG POST RECORDING

Harnessing Innovative Technologies for Earth Intelligence Solutions

Purpose

This town hall explored how innovative technologies - including artificial intelligence (AI), machine learning, cloud computing, digital twins, drones, and very high-resolution (VHR) EO imagery - are harnessed to deliver Earth Intelligence through GWP activities and partner initiatives. The discussion focused on what it takes to scale technology-enabled Earth Intelligence solutions, including open data and open knowledge, interoperable platforms, partnerships, and investment. Participants engaged in a forward-looking dialogue on how GEO can accelerate the responsible, scalable, and sustainable adoption of innovative technologies to maximize impact for users worldwide.





Moderators and Speakers



Mark Dowell
Joint Research Centre
Moderator



Sven Gilliams
GEOGLAM
Speaker



Grace Saunders-Hogberg
DK-WG
Speaker



Yifang Ban
AI4EO
Speaker



Vincent-Henri Peuch
ECMWF
Speaker



Letwin Pondo
GEO Secretariat
Speaker

Key Questions Posed to Panelists

The discussion centred on what worked, what didn't, and how GEO could help scale successful approaches. Panelists were invited to share examples of innovative technologies being translated into decision-support tools and to reflect on what was required to move from successful pilots to wider operational use. Examples included: AI-based change detection using open satellite data to identify illegal waste sites in Sweden; the AI-powered "Forecast in a Box" enabling operational weather prediction on a laptop in Malawi; VHR imagery supporting youth-led flood mapping in Tanzania; AI-based crop yield forecasting helping plan drought interventions in Africa through GEOGLAM; and drone-derived orthomosaic maps enabling environmental engineers to integrate nature-based infrastructure into planning and investment decisions.









Key Themes Emerging from the Discussion

Three main themes emerged. First, innovative technologies can demonstrate tangible value across GEO's priorities when developed in response to operational needs. However, panelists agreed that technology alone is not sufficient to scale solutions. Successful implementation also requires trusted partnerships, sustained engagement with users, capacity development, interoperable workflows, and long-term institutional ownership. Speakers stressed that many technically successful pilots had not progressed to operational use because these enabling conditions were absent.

Second, the responsible adoption of innovative technologies requires addressing a range of practical, institutional, and governance barriers. These include limited access to cloud service and computing infrastructure, insufficient AI training data in many regions, unequal access to VHR EO imagery, digital capacity gaps, and inadequate governance, transparency, and privacy safeguards. Panelists also emphasized the importance of using AI, remote sensing, and in-situ observations in combination, rather than treating them as competing approaches.

Finally, participants highlighted GEO's comparative advantage as a trusted convener that connects technology developers, operational users, governments, and GWP activities. Priorities identified for GEO included promoting open knowledge exchange, documenting good practices, supporting research-to-operations pathways, developing common guidance such as the new AI4EO Living Book, strengthening capacity development, and helping Members adopt innovative technologies in ways that are equitable, operational, and responsive to real-world needs.

COMMUNITY EVENTS

OPEN DATA AND OPEN KNOWLEDGE (ODOK) SESSIONS



GEO In-Situ Data Strategy and Its Implementation Plan

Purpose and Relevance

This session aimed to strengthen the integration of data platforms and knowledge infrastructures that support access to in-situ observations across the GEO community. It examined how improved discovery, interoperability, and alignment of data systems can help address persistent observational gaps and enhance the usability of environmental information. By highlighting citizen science, emerging technologies, and user-driven approaches, the session encouraged more inclusive and responsive monitoring systems capable of supporting better environmental decisions.







Moderators and Speakers



Helen Glaves
EPOS
Moderator



Joan Masó
CREAF
Moderator



Leo Chiloane
SAEON
Moderator



Alessandro Turco
EPOS
Speaker



Emmanuel Salmon
ICOS ERIC
Speaker



Alba Brobia
CREAF
Speaker



Francesca Piatto
EARSC
Speaker



Eleni Athanasopoulou
NOA
Speaker

Outcomes and Actions

Participants recognized that long-term success depends on sustainable financing, improved interoperability, expanded geographic coverage, and stronger links between digital infrastructures, including ENVRI Hub and the GEO Knowledge Hub. Discussions also underlined the value of citizen science, affordable sensing technologies, and user-driven tools, such as G-REQs, for identifying data gaps and defining observing requirements.

Actions focused on coordinated implementation of the GEO In-Situ Data Strategy. Participants called for increased investment, capacity development, and institutional commitment from governments, research organizations, the private sector, and international initiatives such as ICOS and FLUXNET. Particular emphasis was placed on improving hydrometeorological monitoring in Africa and other underserved regions where data gaps limit resilience, planning, and climate services.

The session also identified the need for robust ethical frameworks for emerging data practices, including risk assessments, anonymization measures, and safeguards that protect citizen scientists, Indigenous peoples, and local communities while enabling responsible data sharing and broader participation.



National GEO Knowledge Hubs: Experiences from South Africa, Ghana, and China and self-deployable GEO Knowledge Hubs

Purpose and Relevance

This session examined the development and implementation of National GEO Knowledge Hubs as a mechanism for strengthening EO data and knowledge sharing at national and regional levels. It brought together experiences from South Africa, Ghana, and China, highlighting technical and strategic perspectives and challenges with an emphasis on data sovereignty and sustainable knowledge sharing. The session showed the importance of National GEO Knowledge Hubs as a vehicle to connect global and local knowledge ecosystems by contextualizing EO resources for national priorities while maintaining links to GEO.



Moderators and Speakers



Paola De Salvo
GEO Secretariat
Moderator



Felipe Carlos
GEO Secretariat
Speaker



Bolelang Sibolla
CSIR
Speaker



Amos Kabo-Bah
UENR
Speaker



Li Guoqing
AIR-CAS
Speaker



Ma Yue
AIR-CAS
Speaker



Pedro Gonçalves
Terradue
Speaker



Abdul Fuseini
GEO Secretariat
Speaker

Outcomes and Actions

Participants recognized National GEO Knowledge Hubs as practical mechanisms for linking global EO knowledge with national and regional priorities, while supporting data sovereignty, local ownership, customization, and evidence-informed decision-making. Discussions emphasized that future GEO Knowledge Hub infrastructure should move beyond simply providing access to information, enabling users to discover, understand, adapt, and re-execute workflows across different geographic and thematic contexts.

















Priority actions focused on expanding participation and strengthening the foundations for interoperable knowledge sharing. Participants called for onboarding additional countries, improving open data policies, and creating stronger mechanisms for exchanging experiences, workflows, and solutions between National GEO Knowledge Hubs. They also emphasized the need for continued investment in community engagement, co-design, capacity building, open standards, and interoperable architectures to ensure National GEO Knowledge Hubs are useful, inclusive, and sustainable. Further action is needed to explore scalable cooperation models that could support replication in other regions.

Principles, Rules, and Tools for the GEO Infrastructure

Purpose and Relevance

This session highlighted practical approaches for improving the discoverability, accessibility, reusability, and sustainability of EO data and knowledge, while showcasing tools and methodologies that support implementation of the GEO Data Sharing and Data Management Principles. The session brought together perspectives from knowledge providers, data managers, infrastructure developers, and project coordinators, emphasizing the importance of community engagement, effective documentation, licensing, and long-term preservation in transforming EO data into actionable Earth intelligence across the GEO community and beyond.





Moderators and Speakers



Bente Bye
BLB
Moderator, Speaker



Margherita Di Leo
Joint Research Centre
Speaker



Marie-Françoise Voidrot
One Single Earth
Speaker



Kalamkas Yessimkhanova
GEO Secretariat
Speaker



Lionel Menard
Mines ParisTech
Speaker



Helen Glaves
EPOS
Speaker

Outcomes and Actions

Effective data management and knowledge sharing are foundational components of GEO's vision for Earth Intelligence. Participants agreed that the GEO Data and Knowledge Dialogue series provides a successful model for global engagement, capacity building, and community exchange.

Discussions underscored that Data Management Plans (DMPs) should function as living documents throughout project lifecycles rather than solely as compliance requirements. High-quality documentation and metadata, licensing, and training resources improve the discoverability and reuse of EO resources.

In this endeavour, human expertise remains essential for assessing and improving data sharing and management practices, even as AI-assisted tools become more common. Sustainable repositories, persistent identifiers, and long-term governance mechanisms are critical for preserving knowledge assets beyond project funding cycles.

Participants were encouraged to engage with new tools, such as the DMP OPIDoR platform and the GEO Knowledge Hub self-assessment dashboard, and to provide feedback to help them improve. Future priorities include completing the integration between DMP OPIDoR and the GEO Knowledge Hub, expanding assessments of DMPs across projects, and improving automation while maintaining expert curation.













GEO Infrastructure and Artificial Intelligence

Purpose and Relevance

This session examined how AI is being integrated into GEO infrastructure to enhance discovery and reuse of EO resources. Presentations covered AI-enabled capabilities within the GEO Knowledge Hub, advanced conversational EO platforms, the Artificial Intelligence for Earth Observations (AI4EO) Enabling Mechanism, national-scale geospatial AI ecosystems, automated metadata generation, and emerging questions of liability and accountability in AI-driven geospatial products. The session explored how open knowledge infrastructures can be enhanced by AI in support of the GEO Data Sharing and Data Management Principles.





Moderators and Speakers



Paola De Salvo
GEO Secretariat
Moderator



Felipe Carlos
GEO Secretariat
Speaker



David Borges
CEOS
Speaker



Yifang Ban
KTH
Speaker



Lan Wu
MNR, China
Speaker



Margherita Di Leo
Joint Research Centre
Speaker



Jean-Philippe Montillet
PMOD/WRC
Speaker

Outcomes and Actions

Key messages emphasized that trust is the central requirement for AI-enabled GEO infrastructure. Open standards, rich metadata, and licensing remain essential foundations for reliable AI applications, while traceability and provenance are necessary to avoid “black box” decision-making. Community ownership through GEO Members, Participating Organizations, and Work Programme activities strengthens confidence in shared infrastructure, and AI should augment human expertise rather than replace scientific validation and stewardship.











Future directions include closer collaboration between GEO, UN-GGIM, CEOS, and other international initiatives to advance trusted Earth Intelligence in support of the Sustainable Development Goals (SDGs). Participants highlighted the importance of expanding AI-ready datasets, improving model validation in underrepresented regions, and continuing development of interoperable AI services within the GEO infrastructure. Overall, the session demonstrated strong momentum toward an AI-enhanced GEO ecosystem in which open data, open knowledge, reproducible workflows, and transparent governance deliver scalable and trustworthy Earth Intelligence for global decision-making across the GEO community.

GEO Infrastructure, Youth, and GEO Indigenous Alliance

Purpose and Relevance

In this session, through a series of presentations and discussions, participants emphasized that the future of EO depends not only on advances in satellites, AI, and data systems, but equally on participation, inclusion, local ownership, and intergenerational knowledge exchange. The session highlighted emerging initiatives that place people at the centre of GEO infrastructure, including National GEO Knowledge Hubs, youth-led satellite missions, open learning platforms, capacity development networks, and Indigenous-led approaches to environmental monitoring and technology design.



Moderators and Speakers



Letwin Pondo
GEO Secretariat
Moderator



Kwanele Ngongoma
CSIR
Speaker



Andy Nelson
ITC, University of Twente
Speaker



Erin Martin
EOTEC DevNet
Speaker



Richard Fu
Helios
Speaker



Diana Mastracci
Space4Innovation
Speaker



Outcomes and Actions

The future of Earth Intelligence depends as much on people and communities as on technology and data.

Open knowledge must prioritize inclusion, accessibility, cultural relevance, and participation. In this endeavour, youth should be empowered as creators, innovators, and decision-makers within GEO infrastructure. National GEO Knowledge Hubs provide a model for combining local ownership with global connectivity, while lifelong learning and capacity development remain critical to addressing skills gaps across the EO sector. At the same time, Indigenous knowledge provides essential context that strengthens scientific observations and decision-making.

Technology should support rather than replace community priorities and local governance. GEO infrastructure must evolve as a socio-technical system that combines data, knowledge, people, institutions, and values.

The session concluded with a call for stronger collaboration between youth initiatives, Indigenous communities, educational platforms, and GEO infrastructure programmes. Participants agreed that building the next generation of Earth Intelligence requires not only better technologies but more inclusive, community-driven approaches that ensure that knowledge is created, shared, and governed for the benefit of all.











ODOK Session

BLOG POST RECORDING

Bridging Very High-Resolution Earth Observations and Climate Finance: From Data to Decisions for Early Warning and DRR

Purpose and Relevance

This session addressed the growing disconnect between expanding availability of VHR EO data and its effective use, including for disaster risk reduction (DRR) and early warning. Convened in the context of GEO's current Strategy and Ministerial Declaration and informed by the results of the GEO VHR survey, it examined how to improve access, affordability, and operational uptake of VHR imagery while strengthening the outputs from GWP activities. The discussion brought together GEO Members, Participating Organizations, Associates, Programme Board members, and GWP activities, creating a unique exchange among providers, operational users, technical partners, and climate financing actors.







Moderators and Speakers



Bapon Fakhruddin
Green Climate Fund
Facilitator



Mary Ann Kutny
NOAA
Moderator



Amos Kabo-Bah
UENR
Speaker



Virgilio Benavides
SNGR, Ecuador
Speaker



Fanghong Ye
MNR, China
Speaker



Anica Huck
European Space Imaging
Speaker



Andrew Zolli
Planet
Speaker



Lórant Czárán
UNOOSA
Speaker



John Harding
CREWS Initiative
Speaker

Outcomes and Actions

Survey results presented during the session confirmed strong operational demand for VHR data across the GEO community, with applications spanning multiple GWP focus areas and demonstrating potential for cross-sector approaches. Respondents reported increasing demand for sub-metre and near-real-time access, while identifying cost, licensing restrictions, and limited technical capacity as major barriers. Strong interest was also expressed in coordinated access arrangements, Analysis Ready Data, cloud-based processing, interoperability, and AI-enabled workflows.

















The session demonstrated that building blocks for operational VHR access already exist, including provider partnerships, financing pathways, and the IPEO initiative as a UN system arrangement, but remain fragmented. This highlighted the importance of understanding existing access models, identifying gaps, and building on established mechanisms rather than creating new ones. Practical actions were proposed for GEO over the next 12 months: assessing existing licensing models and end-user requirements as a basis for future engagement with VHR providers; and exploring opportunities to integrate EO applications into existing implementation and financing mechanisms, including those supporting early warning and climate resilience.

ODOK Session BLOG POST RECORDING Disaster Risk Reduction and Adaptation Working Group Data and Knowledge Working Group Resilient Cities and Human Settlements Working Group

Urban Risks, Shared Data, Knowledge, and Solutions: A Joint GEO Working Group Meeting

Purpose and Relevance

The Joint GEO Working Group Meeting brought together the Disaster Risk Reduction and Adaptation (DRRA-WG), Data and Knowledge (DK-WG), and Resilient Cities and Human Settlements (RCHS-WG) Working Groups of GEO to identify practical collaborative activities that address the priorities of all three groups: the DRR-climate-biodiversity nexus, implementation of the GEO In-Situ Data Strategy, and urban resilience.

Three potential directions were presented for consideration:

1. GEO Knowledge Hub knowledge packages on nexus topics and urban resilience;
2. An Urban Coastal Resilience use case;
3. A High Mountain and Rapidly Urbanizing Cities use case.






Moderators and Speakers


Gensuo Jia
DRRA-WG
Moderator


Kalamkas Yessimkhanova
DK-WG
Speaker


Martyn Clark
RCHS-WG
Speaker


Yue Huanyin
GEO-UAV
Speaker


Jumpei Takami
EO4DRM
Speaker


Helen Glaves
DK-WG
Speaker


Thomas Kemper
RCHS-WG
Speaker

Outcomes and Actions

The discussion highlighted strong interest in using urban resilience challenges as a common implementation space for the three Working Groups. The proposed GEO Knowledge Hub activity would organize and make discoverable datasets, methods, tools, training materials, and case studies relevant to the DRR-climate-biodiversity-urban nexus. The two proposed use cases would document real-world decision-making needs and associated EO (e.g., in-situ, unmanned aerial vehicle [UAV]) and socio-economic data requirements for urban coastal resilience and mountain-city resilience, providing practical frameworks that can guide future GEO activities, partnerships, and knowledge products.











A follow-up Slido poll confirmed support for all three directions. The GEO Knowledge Hub proposal received the strongest support (64%), while both the mountain and coastal use cases also received substantial support (48% and 44%). Responses identified potential contributors from GWP activities, research institutions, national agencies, and city-focused organizations willing to provide expertise, datasets, case studies, partnerships, knowledge products, and coordination support. The three Working Groups will use these inputs to refine the proposals and identify concrete collaborative activities for implementation.

COMMUNITY EVENTS

REGIONAL GEO SESSIONS



BLOG POST RECORDING

From Strategy to Action: Advancing National Implementation of “Earth Intelligence for All”

Purpose and Relevance

This session explored how GEO Members can move from strategy to implementation through the development of national approaches. Discussions among GEO Co-Chairs from China, the European Union, South Africa, and the United States focused on how Earth Intelligence can support better governance, public services, and informed decision-making. They highlighted that advances in AI, cloud computing, and digital technologies are creating new opportunities to deliver actionable information at scale and helping governments anticipate risks and respond more effectively to emerging challenges.





Moderators and Speakers



Xiang Gao
CSTEC
Moderator



Guifei Jing
Beihang University
Speaker



Irene Parker
NOAA
Speaker



Joanna Drake
European Commission
Speaker



Abel Ramoelo
SANSA
Speaker

Outcomes and Actions

Operational services were identified as a core objective and requirement for work in the coming decade. EO systems must attach high priority to delivering decision-support functions and commit to sustained daily, quarterly, or annual operational services. This approach will enable decision-making systems and the public to reap tangible benefits, rather than treating such efforts solely as research activities.

Guidance for Earth Intelligence carries exceptional importance. It is critical to explore engineering frameworks and technical architectures, design user-centric solutions, define clear work packages or modules, and set concrete performance indicators. Countries should further boost interoperability in data, infrastructure, models, and applications to enable shared access.





Strengthening investment in Earth Intelligence will require a clear roadmap for translating Earth observation capabilities into operational, user-driven solutions. The roadmap should define priority needs, pathways from research to operations, implementation milestones, expected outcomes, and measurable benefits, providing greater confidence for governments, donors, development partners, and private-sector investors. Particular attention should be given to public-private partnerships, sustainable business and delivery models, and diversified resource mobilization, while leveraging GEO's convening role to connect global capabilities, regional priorities, and investment opportunities.

BLOG POST RECORDING

From Global Data and Partnership to Regional Action: GEO Human Planet and the Regional GEOs

Purpose and Relevance

The session examined how GWP activities, including GEO Human Planet, can be better operationalized through Regional GEOs to improve service delivery, strengthen cross-regional collaboration, and increase national and regional impact. Speakers highlighted current uses, persistent gaps, and the need for mechanisms that support interoperability, co-development, and sustained uptake. The discussion underscored the urgency of making GEO's assets more operational, responsive, and aligned with regional priorities.





Moderators and Speakers



Mark Dowell
Joint Research Centre
Moderator



Michele Melchiorri
Joint Research Centre
Speaker



Evangelos Gerasopoulos
NOA
Speaker



Naledzani Mudau
SANSA
Speaker



Li Xiaosong
CBAS
Speaker



Hakki Erdogan
GEO Secretariat
Speaker



Jean Dusart
European Commission
Speaker



Yong Pang
MNR, China
Speaker



Ricardo Quiroga
IGAC, Colombia
Speaker



Tumisang Modiole
DSTI, South Africa
Speaker

Outcomes and Actions

Participants emphasized that GEO's impact now depends on turning EO assets into operational Earth Intelligence that can support real decisions across scales, from local implementation to regional and national action. GEO Human Planet products were highlighted as proving their value in last-mile policy applications, while also showing strong potential for scaling up through Regional GEOs. The Global Human Settlement Layer (GHSL) was recognized as a human-centric Earth Intelligence data layer with strategic relevance for future multilateral sustainable development frameworks.











The session highlighted the need to strengthen locally relevant indicators, subregional customization, and interoperability to integrate Earth Intelligence more effectively with complementary data and decision-making systems. Participants emphasized the value of GEO Human Planet as a practical demonstration of the research-to-operations pathway, particularly for applications such as urban heat and air quality, and called for these solutions to be co-designed, adapted, and scaled through Regional GEOs to support wider national and regional uptake.

BLOG POST RECORDING

From Local to Global: Case studies and trends in disaster preparedness and response

Purpose and Relevance

This session brought together GEO Members, partners, and local practitioners to explore how Earth Intelligence can improve disaster preparedness and response. Through practical cases on hurricane relief, early warning, and geohazard resilience, it showed how global observations can support locally led action. At a time of growing, interconnected risks, the session contributed to advancing the GEO Post-2025 Strategy and aligning GWP activities with community needs. It aimed to strengthen regional partnerships, build local capacity, and scale accessible solutions that enable earlier decisions and lasting resilience.



Moderators and Speakers



Patricia Cummens
Esri
Moderator



Olivier Cottray
Esri
Speaker



Valrie Grant
Jamaica Flying Labs
Speaker



Sonja Betschart
WeRobotics
Speaker



Manuel Ntumba
TGN
Speaker



Yoma Baka
Ministry of Security, Togo
Speaker



Latifou Issaou
Ministry of Transport, Togo
Speaker



Marco Massabo
UNDRR
Speaker



Lingfeng He
Beihang University
Speaker



Martha Villagómez
IGM, Ecuador
Speaker



Peninah Njogu
RCMRD
Speaker

Outcomes and Actions

The session emphasized that Earth Intelligence creates the greatest value when it is locally owned and designed around real community needs. Participants agreed that EO data must be translated into timely, trusted information that helps authorities and communities prepare for hazards, act earlier, and coordinate disaster response. GEO's global capabilities can support this work while preserving local leadership and ensuring interoperability across regions.



A second key message was that technology alone is insufficient. Sustainable impact depends on partnerships among governments, Regional GEOs, researchers, civil society, local communities, and technology providers. Combining satellite observations with drones, geographic information systems (GIS), multi-hazard warning systems, and local knowledge can close the gap between available data and operational decisions.

To strengthen investment in Earth Intelligence, participants called for greater support for local skills, infrastructure, and institutional capacity; continued investment in co-designed, user-focused services; and stronger mechanisms for sharing knowledge across regions. GEO and its partners should help successful local initiatives move beyond short-term pilots by connecting them to the GWP, building durable partnerships and mobilizing resources for scalable solutions. Investment should prioritize practical services that reach decision-makers and vulnerable communities, ensuring measurable benefits for preparedness, response, and long-term resilience.



BLOG POST RECORDING

Leveraging Earth Observations for Post-Conflict Recovery

Purpose and Relevance

Armed conflicts are increasingly affecting not only human populations but also natural systems, with long-term consequences for ecosystems, natural resources, and environmental sustainability. Earth Intelligence can provide transparent and objective information on environmental damage, infrastructure impacts, population displacement, and recovery progress to support environmental assessment, recovery planning, and long-term resilience in conflict-affected areas.







Moderators and Speakers



Sergey Gerasymchuk
SSAU
Moderator



Madeeha Bajwa
GEO Secretariat
Speaker



Pier Carlo Sandei
UNEP
Speaker



Michel Rixen
European Commission
Speaker



Vincent-Henri Peuch
ECMWF
Speaker



Hans Buurman
Terra Mira
Speaker

Outcomes and Actions

The value of regional and international coordination becomes even more apparent in conflict situations. Participants demonstrated how EO can support environmental assessment, recovery planning, and long-term resilience in conflict-affected areas.

The discussion highlighted the importance of GEO's convening capacity in supporting recovery efforts, while integrating the principles of green recovery and environmental sustainability from the earliest stages of reconstruction and even during conflict. The impacts of warfare often transcend national borders, affecting neighbouring countries and shared natural resources. Earth Intelligence can help to provide a common evidence base for recovery efforts, but its success depends on regional coordination, international partnerships, trusted data, and shared technical capacity.

A key outcome of the discussion was the identification of a potential pilot project in Ukraine under the framework of the GWP to demonstrate how Earth Intelligence can support environmental assessment, recovery planning, and long-term resilience. The lessons, methodologies, and operational approaches developed through this pilot could subsequently be adapted and applied in other conflict-affected regions around the world.








MORE COMMUNITY EVENTS



Community Event

RECORDING

Turning Coordination Into Impact: Delivering coherent country support across agriculture, land, and biodiversity

Purpose and Relevance

Building on initial discussions at the 2025 GEO Global Forum in Rome, Italy, this session explored practical synergies and coherence across the GWP and regional initiatives in supporting countries. It brought together land-related GWP Flagships and Mature Flagships - GEOGLAM, GEO-LDN, GEO Biodiversity Observation Network (GEO BON), and Global Forest Observations Initiative (GFOI) - alongside two regional initiatives, Digital Earth Africa (DE Africa) and Digital Earth Pacific (DE Pacific), to examine opportunities for coordinated and complementary engagement across agriculture, biodiversity, forests, and digital Earth infrastructures.



Moderators and Speakers



Esther Makabe
GEOGLAM
Moderator



Antje Hecheltjen
GEO-LDN
Moderator



Sven Gilliams
GEOGLAM
Speaker



Ebenezer Ntsiful
GEO-LDN
Speaker



Andiswa Mlisa
DE Pacific
Speaker



Lisa-Maria Rebelo
DE Africa
Speaker



Alice Hughes
GEO BON
Speaker



Thomas Harvey
GFOI
Speaker

Outcomes and Actions

Land sits at the intersection of multiple SDGs. However, policy and EO remain largely organized in silos. More coherent approaches to reporting and implementation can make better use of available resources.

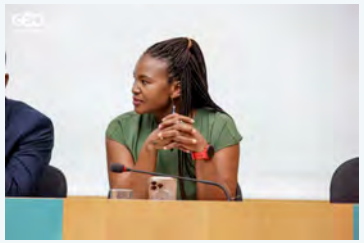
The following tasks were identified for the land-related Flagships, Mature Flagships, and regional initiatives:

- Move beyond coordination to operational integration to provide more coherent country support across the three Rio Conventions (UNFCCC, CBD, UNCCD);
- Sustain country capacity development across the Rio Conventions through regional helpdesks and support mechanisms that improve access to technical expertise, peer exchange, and tailored country support;
- Advance harmonization of data, methods, and workflows across the Rio Conventions to support more efficient reporting and implementation processes.

As a concrete next step, the decision was made to launch a joint activity on Rio synergies, using the AfriGEO Symposium in Nigeria as an opportunity and kick-off.







Community Event

RECORDING iClimateAction

From Earth Observation to Climate Services: Realizing the full potential of the ECV data chain

Purpose and Relevance

This session examined why the pathway from Essential Climate Variable (ECV) data to operational climate services remains difficult despite significant public investment. Data chains are fragmenting, geopolitical shifts threaten observing system continuity, and AI and commercial actors are reshaping the landscape faster than governance can adapt. iClimateAction, bringing together GEO, WMO, and GCOS under EU Horizon Europe, is working to address this fragmentation. For GEO and its partners, moving from demonstration to scale and ensuring regions most exposed to climate risk are not left behind is one of the defining challenges of this period.









Moderators and Speakers



Paolo Laj
WMO
Moderator



Yana Gevorgyan
GEO Secretariat
Speaker



Véronique Bouchet
WMO
Speaker



Joanna Drake
European Commission
Speaker

Outcomes and Actions

The session identified a clear consensus: the barrier between ECV data and usable climate services is not primarily a data shortage but a translation problem. Despite an unprecedented volume of satellite and commercial data, end-users cannot easily navigate the data due to fragmentation and poor interoperability. Participants advocated for reversing the design logic of the data chain, starting from user requirements and working back to the necessary observations and models.



Several enabling conditions for scale were identified: federating existing platforms rather than forcing integration; standardizing metadata to make AI tools trustable for non-expert users; and developing clearer frameworks for commercial data partnerships. Long-term satellite records were recognized as an underused asset for climate modelling.

The session also made clear that scaling climate services is as much a socio-economic challenge as a technical one. Services must be adapted to local contexts and delivered in formats that meet decision-makers' needs. iClimateAction, specifically through its two demonstrators, GHRS and the Global Ecosystems Atlas, offers replicable models for translating ECV data into services that decision-makers can use.



Community Event

BLOG POST RECORDING

Addressing Data Gaps and Capacity Needs for Land Restoration and Land Degradation Neutrality in Mountain Regions

Purpose and Relevance

GEO Mountains and WOCAT explored how EO can effectively monitor land degradation in mountain regions. Mountains cover 27% of Earth's land surface and provide essential ecosystem services to billions of people, yet they face accelerating degradation from climate change, land use intensification, and natural hazards. Achieving SDG 15.3 on land degradation neutrality and SDG 15.4 on mountain ecosystem conservation requires robust monitoring systems. Mountains present unique technical challenges that demand innovative approaches combining EO expertise with sustainable land management practices, directly supporting multiple SDGs.





Moderators and Speakers



Glenn Hunt
GEO Mountains | MRI
Moderator



Tatenda Lemann
WOCAT | CDE, University of Bern
Speaker



Birendra Bajracharya
ICIMOD
Speaker



Alexandrine Massot
GEO Mountains | MRI
Speaker



Li Xiaosong
CBAS
Speaker



Antje Hecheltjen
GEO-LDN | GIZ
Speaker

Outcomes and Actions

Three key insights emerged. First, effective land degradation monitoring in mountain regions requires integrating satellite EO with ground-based observations and participatory and Indigenous knowledge, as technical signals (e.g., “greening”) can mask local degradation processes. Second, interpretation matters as much as data availability; how we define and measure degradation varies dramatically across contexts and scales. Third, bridging the science-policy gap demands actionable tools that translate complex EO data into decision-relevant information for land managers and policymakers.

















To strengthen Earth Intelligence, participants called for integrated, context-sensitive monitoring that combines advances in EO, cloud computing, participatory mapping, and accessible geospatial tools to compare, validate, and interpret multiple information sources. They stressed co-design with local experts, capacity building for mountain actors to access and use EO, and interoperable platforms that link datasets and knowledge. The session also highlighted closer collaboration between mountain research and GEO-LDN to better support SDG 15.3 and 15.4 reporting.

RECORDING

Youth Community of Practice

Investing in Future Earth Intelligence Leaders: GEO Youth Community Event and Mentorship Programme Launch

Purpose and Relevance

The GEO Youth community event highlighted youth as essential contributors to the future of Earth Intelligence. It showcased youth-led EO applications, introduced the first GEO Youth Community of Practice (GEO Youth CoP) Leadership Team, and launched the Mentorship Programme, Matching Platform, Blog Series, and Poster Competition winners. These topics matter now because GEO's future impact depends on investing in people, not only technology and data. By expanding access to mentorship, networks, training, tools, and partnerships, the event strengthened youth capacity to support the SDGs, Paris Agreement, Sendai Framework, and GWP.







Moderators and Speakers



Marta Koch
GEO Youth CoP
Moderator



Samuel Amos
GEO Secretariat
Speaker



Amin Shakya
GEO Youth CoP
Speaker



Arunima Sen
GEO Youth CoP
Speaker



Chimuka Chuulu
GEO Youth CoP
Speaker



Thando Mathe
GEO Youth CoP
Speaker



Theophilus Wellington
WMO
Speaker



Ran Zhang
WMO
Speaker



Gregory Giuliani
University of Geneva
Speaker

Outcomes and Actions

Participants should remember that youth, young professionals, and early-career scientists are active contributors to Earth Intelligence, not only future beneficiaries. They are applying EO in innovative and locally relevant ways to address global challenges such as climate resilience, food security, water sustainability, disaster risk reduction, and ecosystem management.

The future of Earth Intelligence depends on investing in people, not only in technology, data, and infrastructure. Mentorship, training, tools, networks, and meaningful opportunities for participation are essential to strengthen youth capacity and support GEO's contribution to the SDGs, Paris Agreement, Sendai Framework, and GWP.











Key actions included launching the GEO Youth Mentorship Programme and Mentor-Mentee Matching Platform, introducing the first GEO Youth CoP Leadership Team, launching the Youth Blog Series, and announcing the Poster Competition winners. The event also reinforced partnerships with organizations such as WMO, UNEP-GRID, University of Geneva, AfriGEO, and other GEO stakeholders. It reaffirmed GEO's commitment to empowering future Earth Intelligence leaders through sustained mentorship and inclusive capacity building.

BLOG POST RECORDING

Water Security Is Global Security: A scalable partnership that turns Earth Intelligence into action for human well-being

Purpose and Relevance

Rivers do not recognize borders, but data about them often do. In response to this challenge, the GWP Flagship GEO Global Water Sustainability (GEOGLOWS) offers a free, neutral reference for streamflow forecasts and historical data across 7 million rivers worldwide, building a shared ground truth for global water resources. This community event, taking GEOGLOWS as an example, explored what GEO must scale next beyond data and models - sustaining trust across borders, institutions, and generations.









Moderators and Speakers



Pete Epanchin
Spatial Informatics Group
Moderator



Jim Nelson
Brigham Young University
Speaker



Juseth Chancay
Fundación EcoCiencia
Speaker



Tania Gascon
WMO
Speaker



Gila Loike
Google
Speaker



Maria Carreño Lindelien
IUCN
Speaker



Beth Larsen
Brigham Young University
Speaker



Angelica Gutierrez
GEOGLOWS
Speaker



Valentin Golovtchenko
World Economic Forum
Speaker



Birendra Bajracharya
ICIMOD
Speaker



Chinaporn Meechaiya
ADPC
Speaker



Bapon Fakhruddin
Green Climate Fund
Speaker



Steve Kopp
Esri
Speaker



Karina Larco
Brigham Young University
Speaker

Outcomes and Actions

First, the value of a model depends on the relationships that enable its forecasts to be trusted, acted upon, and therefore effective. The clearest outcome of the session was a reunion. SERVIR, which has carried GEOGLOWS forecasts to communities since 2020, and GEOGLOWS agreed to resume working together, strengthening their commitment to the delivery and advancement of the service in underserved communities.







Second, forecasting is also a moral act and not just a technical one. A 15-day flood warning doesn't just predict the future; it redistributes who gets to act on it. The communities with the least responsibility for climate volatility are usually the communities with the least time to respond. Closing that gap is not only a technical challenge, but also a step toward addressing longstanding inequalities in access to timely and actionable information.







Third, access matters most when it comes with agency and ownership. High-quality, free, and open data is necessary but not sufficient. Local ownership and co-design can be as important as access to the forecast itself, while information without the ability to act on it can reinforce existing forms of exclusion.

RECORDING

Resilient Cities and Human Settlements Working Group

Urban Earth Intelligence for Impact: What do urban decision-makers actually need from GEO?

Purpose and Relevance

Cities face escalating heat risk and climate stress, yet EO activities designed to support urban decision-makers often reflect what the EO community produces rather than what practitioners need. This session asked whether GEO's urban activities are genuinely designed around decisions. Four use cases spanning neighbourhood co-design in Greece, urban regeneration in Shanghai, heat risk decision-support with C40 pilot cities, and heritage climate risk with UNESCO World Heritage cities were examined using a common framework, followed by a panel discussion on adoption barriers and GEO's distinctive value.





Moderators and Speakers



Thomas Kemper
RCHS-WG | JRC
Moderator



Martyn Clark
RCHS-WG | GHRS
Moderator, Speaker



Eleni Athanasopoulou
NOA
Speaker



Evangelos Brachos
City of Ioannina
Speaker



Wu Zhiqiang
Tongji University
Speaker



Richard Fu
Helios
Speaker



Nefta Votsi
NOA
Speaker

Outcomes and Actions

The session surfaced a fundamental design challenge for the GEO urban community: EO activities are too often built around what the EO community can produce rather than the decisions practitioners need to make. Four use cases across Greece, China, Brazil, and the Mediterranean demonstrated that when EO is co-designed with users around specific decision contexts, it gets used. When it is not, it sits on the shelf regardless of technical quality.





Three messages cut across all four cases. First, cities do not need more data or more tools; they need processed, visualised intelligence in formats that non-specialist staff can act on, sustained beyond the funding cycle that created them. The Cal Heat Score, raised from the floor, was held up as a model: complex data reduced to an actionable, daily, citizen-facing output. Second, trust is the precondition for adoption. The Beijing flood case showed that long-term relationships between researchers and decision-makers matter more than technical sophistication. Third, the EO community needs to go to city spaces rather than expecting cities to approach.

The session closed with an open invitation to join the RCHS Working Group and a commitment to identify a new urban EO initiative for the GWP by end of 2026.

Community Event

RECORDING

AI+Space Earth Observation Empowers a New Paradigm of Global Disaster Mitigation

Purpose and Relevance

This community event explored how AI and space-based EO can enable a new paradigm of global disaster mitigation. Through cases on multi-hazard disaster chains; wildfire, ecological, and public health risks; agricultural disasters; and space-environment monitoring, the event showed how multi-source observations and AI analytics can move disaster management from fragmented, post-event response toward predictive, cross-border, and user-oriented services. This topic matters now because while climate-related and cascading risks are intensifying, GEO is advancing Earth Intelligence as a practical framework for resilient societies.





Moderators and Speakers



Wenjiang Huang
AIR-CAS
Moderator, Speaker



Siquan Yang
NINH, China
Speaker



Roberto Battiston
ESSC
Speaker



Yuqi Bai
Tsinghua University
Speaker



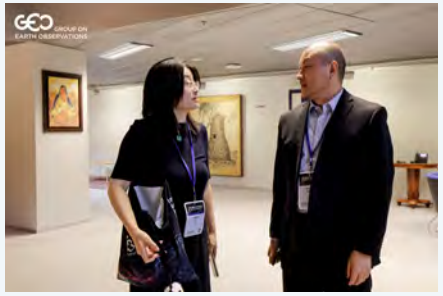
Jing Jiao
University of Bern
Speaker

Outcomes and Actions

Participants took away that Earth Intelligence is not only about collecting more observations, but about turning multi-source data into timely, trusted, and actionable services. AI-enabled EO can help shift disaster management from fragmented post-event assessment to proactive monitoring, early warnings, and decision support for cascading risks. This community event demonstrated these applications through examples on multi-hazard disaster chains, ecological and public health risks from wildfires, agricultural disasters, and space-environment monitoring.











A second key message was that disaster risks are increasingly interconnected across sectors and borders. Effective mitigation therefore requires integrated observations from satellites, aerial platforms, ground networks, and in-situ systems.

The recommendation emerged for further investment in AI-ready, interoperable, and quality-controlled EO data, operational platforms, and cross-border partnerships. Participants emphasized stronger collaboration among GEO communities, national agencies, research institutions, and end users to develop pilot services, share methods and data, and scale solutions for resilience, food security, public health, and disaster risk reduction.

RECORDING

Using Impact Assessment Techniques to Demonstrate the Success of GEO with the New GEO EO Impact Assessment Toolkit

Purpose and Relevance

GEOValue, a GWP Enabling Mechanism, organized a community event to present its GEO EO Impact Assessment Toolkit (GIAT). The toolkit is a practical resource designed to empower analysts within GWP activities to independently assess and demonstrate the benefits of their EO activities for users and society. Where widely used by GWP activities, the tool could support GEO in demonstrating its value and stimulating a reflection on how it is delivering benefits that diffuse into society in various ways. The community event also provided an opportunity for discussion on possible directions for future steps.







Moderators and Speakers



Alessandra Tassa
GEOValue | ESA
Moderator



Geoff Sawyer
GEOValue | EARSC
Moderator



Evangelos Gerasopoulos
Programme Board | NOA
Moderator



Maite den Butter
GEOValue | ESA
Speaker



Livia Peiser
GEOGLAM | FAO
Speaker



Michele Melchiorri
GEO Human Planet | JRC
Speaker



Wenbo Chu
GEO Secretariat
Speaker



Jean Dusart
European Commission
Speaker



Miao Chen
CSTEC
Speaker

Outcomes and Actions

Participants learned how the toolkit can be used and how it has already been tested by some GWP activities, including GEOGLAM, GEO Blue Planet, and GFOI.

In the first panel, moderated by Geoff Sawyer (EARSC), Livia Peiser (GEOGLAM, FAO) explained that they decided to try the GIAT on top of their institutional monitoring activities to "enlarge the picture". Michele Melchiorri (GEO Human Planet, JRC) described interest from the Global Human Settlement Layer (GHSL) and suggested that it could help the activity to transition into a GWP Flagship.











In the second panel, moderated by Evangelos Gerasopoulos (NOA), Wenbo Chu (GEO Secretariat) highlighted how the GIAT works well in complementing recent efforts of the GEO Secretariat on a monitoring and evaluation framework. Miao Chen (CSTEC) and Jean Dusart (EC) suggested that Regional GEOs should be leveraged to facilitate the uptake of the GIAT and ensure it resonates with different cultures.

Speakers agreed that it is crucial to look at GWP activities in terms of impacts on society and that activities would need support to undertake these assessments. The GIAT has been identified as a supporting tool, but it should be expanded to include benefits related, for instance, to networking and capacity building, as well as perspective (ex-ante) analyses. GEOValue organizes regular online conversations with the aim of building a community of practitioners.

RECORDING

EARTH OBSERVATIONS FOR THE SUSTAINABLE DEVELOPMENT GOALS

EO4SDG Initiative Progress and Plan for the Post-2025 GEO Work Programme Leveraging Earth Observation and Artificial Intelligence

Purpose and Relevance

Towards 2030, countries and stakeholders have increased their use of EO data to inform development indicators, manage targets, and evaluate outcomes. Their effective implementation and monitoring are fundamentally constrained by critical data deficiencies. To bridge this gap, there is a proposal to develop and institutionalize a complementary, standardized indicator framework. Satellite EO and AI offer a paradigm-shifting solution to these data challenges. Under such circumstances, a new Enabling Mechanism in the Post-2025 GWP development was discussed as the next step of Earth Observations for the Sustainable Development Goals (EO4SDG).





Moderators and Speakers



Osamu Ochiai
EO4SDG | JAXA
Moderator



Lijun Zuo
CBAS
Moderator



Patricia Cummens
Esri
Speaker



Steve Kopp
Esri
Speaker



Ranjula Bali Swain
Stockholm School of Economics
Speaker



Lorenzo De Simone
FAO
Speaker



Lei Huang
CBAS
Speaker



Mónica Miguel-Lago
EARSC
Speaker



Manuela Balzarolo
CMCC
Speaker



Genki Terauchi
NPEC
Speaker

Outcomes and Actions

During the 2026 GEO Symposium, EO4SDG, China, and CBAS held a successful community event.

Several points were identified as follows:

- There is a need for SDG indicator systems to become more integrated, systematic, and effective;
- Several SDG indicator systems were recognized, among other systems. Greater exchange of views, experiences, and ideas between these systems would be beneficial;
- Looking beyond 2030, the role of EO, particularly when combined with AI and machine learning (ML) technologies, was identified as an important area for further exploration;
- Innovative data sources such as EO satellite imagery and gridded satellite data can be further leveraged to fill statistical data gaps for post-2030 SDG indicator systems.

Therefore, it would be valuable to organize a follow-up call, including potential new partners, to further discuss and plan the new EO4SDG framework as an Enabling Mechanism in the Post-2025 GWP.













BLOG POST RECORDING

Cross-Cutting Partnerships and Data Interoperability: Investing in One Health for a sustainable and healthy future

Purpose and Relevance

This community event highlighted how strategic investments in One Health - including EO-based tools, open data systems, AI-based analysis, pathogen genomics, wildfire observations and recovery, and interdisciplinary collaborations - can strengthen cross-sector coordination and open actionable pathways toward long-term resilience through early warning systems. By leveraging these investments, scientists and decision-makers can generate actionable insights at the human-animal-environment interface, improve prevention and response to emerging health risks, and foster a healthier and more sustainable future.





Moderators and Speakers



Yong-Guan Zhu
RCEES-CAS
Moderator



Nicola Pirrone
CNR, Italy
Speaker



Qiyong Liu
China CDC
Speaker



Bing Xu
Tsinghua University
Speaker



Amos Kabo-Bah
UENR
Speaker



Amadou Sall
Centre de Suivi Écologique
Speaker



Alice Hughes
University of Melbourne
Speaker

Outcomes and Actions

The community event highlighted that strengthening investment in Earth Intelligence for One Health requires coordinated action across science, policy, and implementation.

Participants emphasized five priority areas:

First, investment should support interoperable EO and health data infrastructures that enable timely integration of environmental, biodiversity, animal, and human health information.

Second, AI and advanced analytics should be developed alongside open, high-quality, and standardized datasets to improve early warning, risk assessment, and decision support.

Third, stronger cross-sectoral and international partnerships are needed to bridge EO communities with public health agencies, biodiversity networks, meteorological services, and local stakeholders.

Fourth, sustained investment in capacity development, particularly in low- and middle-income countries, is essential to ensure equitable access to Earth Intelligence technologies, data, and expertise.

Finally, participants encouraged the development of pilot demonstrations and operational services that translate scientific advances into practical applications for disease surveillance, wildfire risk, antimicrobial resistance monitoring, and climate resilience.











Community Event

RECORDING

High-Quality Analysis Ready Data: The foundation of Earth Intelligence in cryosphere operations

Purpose and Relevance

Led by the GEO Cold Regions Initiative (GEOCRI), this community event featured talks on the Cryospheric Sciences Decade of Action, snow/ice products, extreme environment data readiness, agentic EO architecture, and cold-region Earth Intelligence services. The panel discussed AI-ready datasets, climate model integration, and open global tools. As AI transforms the EO landscape, such data is a core foundation for Earth Intelligence, enabling research-to-action climate services and advancing GEO's mission of linking data, science, and decisions for planetary resilience.





Moderators and Speakers



Yubao Qiu
GEOCRI | AIR-CAS
Moderator, Speaker



Wei Yang
GEOCRI | UNESCO
Speaker



Jiancheng Shi
NSSC-CAS
Speaker



Andreas Dietz
GEOCRI | DLR
Speaker



Marta Koch
Imperial College London
Speaker



Thorsten Jelinek
Hertie School
Speaker



Ali Nadir Arslan
University of Vaasa
Speaker

Outcomes and Actions

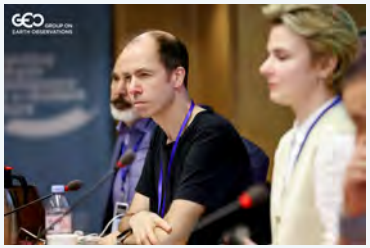
First, high-quality analysis ready cryospheric data are foundational to AI models, whose performance and reliability depend on training data quality. This community event showcased advances in these domains and proposed the creation of an EO value chain roadmap spanning research to operations.

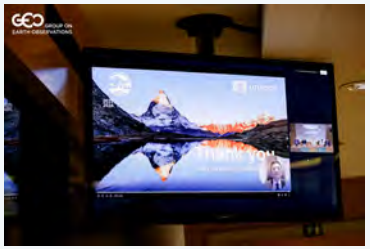
Second, global cooperation is essential for unified worldwide cryosphere datasets, as cryospheric systems cross national borders and observation resources are unevenly distributed globally.

Third, open science and standardized data governance greatly boost cryosphere Earth Intelligence: they widen data access, guarantee transparent and replicable research, and accelerate technical innovation.

This community event called for unified international standards for core cryosphere data products to guarantee cross-region data consistency, interoperability, and comparability for both research and operational climate decisions. Attendees suggested GEOCRI expand user outreach and cooperate closely with global cryosphere, EO, and climate programmes, such as the 2025–2034 Cryospheric Sciences Decade of Action and the International Polar Year. Continuous investment in spatiotemporal gap-filling technology is also required to complete cryosphere datasets and strengthen AI analysis in harsh, cold environments.









BLOG POST RECORDING Indigenous Alliance

Relational Earth Intelligence: Indigenous frameworks for biodiversity and ethical AI governance

Purpose and Relevance

This community event brought together James Rattling Leaf Sr. of the Sicangu Lakota Oyate, Gwen Bridge of the Saddle Lake Cree Nation, Paola De Salvo, and Diana Mastracci. It examined how Indigenous governance, relational values, and data sovereignty can shape Earth observation, biodiversity monitoring, and responsible AI, rather than being considered only after data, models and priorities have been defined. The community event was relevant to GEO's commitment to Earth Intelligence for All by identifying the institutional conditions required for Indigenous knowledge to inform research, technology, policy, and decision-making responsibly.









Moderators and Speakers



James Ratting Leaf Sr.
GEO Indigenous Alliance
Moderator, Speaker



Gwen Bridge
GEO Indigenous Alliance
Speaker



Diana Mastracci
GEO Indigenous Alliance
Speaker



Paola De Salvo
GEO Knowledge Hub
Speaker

Outcomes and Actions

The creation of the GEO Indigenous Alliance Knowledge Hub was announced, which is currently being developed with the GEO Knowledge Hub team as a governed pathway through which selected methods, tools, and knowledge resources can reach the GEO community with their context, authorship, and accountability intact.













RECORDING

Artificial Intelligence for Earth Observations

AI4EO: Advancing Earth Intelligence through artificial intelligence and Earth observation

Purpose and Relevance

AI is reshaping what is possible with EO data. As the volume and complexity of satellite data continue to grow, tools such as geospatial foundation models, generative AI, and agentic workflows are opening new pathways for large-scale environmental monitoring, predictive analytics, and decision support. This community event introduced the Artificial Intelligence for Earth Observations (AI4EO) Enabling Mechanism, a cross-disciplinary platform within the GWP connecting AI researchers, EO scientists, technology developers, and end users. The community event showcased how these advances can accelerate the delivery of trustworthy, scalable, and inclusive Earth Intelligence in support of the GEO Post-2025 Strategy.





Moderators and Speakers



Yifang Ban
AI4EO | KTH
Moderator, Speaker



Srinivasan Keshav
University of Cambridge
Speaker



Steve Kopp
Esri
Speaker



Devis Tuia
EPFL
Speaker



Andrea Nascetti
AI4EO | KTH
Speaker

Outcomes and Actions

The community event brought together leading researchers and practitioners to present and discuss cutting-edge developments at the intersection of AI and EO. Presentations covered AI4EO's structure and activities, including its four working groups on datasets and tools, workshops and webinars, policy and governance, and white papers and policy briefs. A 240-page community-authored Living Book on AI4EO was introduced, designed to help users navigate the rapidly expanding landscape of AI models and their applications.

Technical presentations highlighted the Tessera geospatial foundation model, which generates 128-dimensional embeddings for every 10×10 metre pixel on Earth and outperforms or matches competing models while remaining fully open access. Speakers also showcased agentic and assistant-based geospatial workflows, multimodal species distribution modelling for biodiversity monitoring across thousands of species simultaneously, and the PANGAEA benchmarking framework for evaluating geospatial foundation models, which is a field producing upward of three new models per month as of 2024.

Key themes emerging from the interactive discussion included the need for representative training data from the Global South, the importance of co-designing AI tools with domain specialists rather than machine learning experts alone, the value of open models and transparent benchmarking, and the potential for active learning and uncertainty quantification to guide targeted in-situ data collection. Participants agreed that GEO is well positioned to coordinate an open AI-EO ecosystem through the GEO Knowledge Hub and called for closer integration between AI4EO and GWP activities to ensure that research advances translate into user-driven impact.











Community Event

RECORDING

Earth Observation-Enabled Monitoring, Reporting, and Verification for Nature-Based Solutions and Carbon Management

Purpose and Relevance

This community event explored how EO can evolve into operational Earth Intelligence supporting nature-based solutions, carbon management, and climate action. Through experiences from UNEP, China, Colombia, Gabon, and the private sector, the discussion highlighted the need to move beyond data provision toward trusted, interoperable, and decision-ready information. This topic is particularly relevant for GEO as governments, carbon markets, and climate finance mechanisms increasingly require robust monitoring, reporting, and verification (MRV) systems that integrate scientific credibility, institutional ownership, interoperability, and long-term operational sustainability.





Moderators and Speakers



Mónica Miguel-Lago
EARSC
Moderator



Zhi Chen
IGSNRR-CAS
Speaker



Linxiu Zhang
UNEP
Speaker



Flávia de Souza Mendes
Planet
Speaker



Sébastien Delbour
CLS
Speaker



Ghisliane Echeverry Prieto
IDEAM, Colombia
Speaker

Outcomes and Actions

EO becomes valuable when it is transformed into trusted, operational Earth Intelligence that supports real decisions on nature-based solutions, carbon management and climate action.



Credible MRV cannot rely on satellite data alone; it requires integration with in-situ observations, socio-economic information, long-term scientific networks, institutional governance, and transparent uncertainty assessment. The community event showed that successful systems are not only technical platforms, but operational ecosystems built around users, standards, capacity, and sustained ownership.

The main recommendations were to strengthen interoperable MRV frameworks, connect global and national observation networks, and support thematic pilots that combine EO, socio-economic, and policy information. Participants called for affordable access to satellite data, stronger capacity building, harmonized carbon accounting methods, and user-driven operational services that can continue beyond project cycles. GEO can play an important role by fostering partnerships between public institutions, science, and industry and by helping EO-enabled MRV become a trusted foundation for climate governance, carbon markets, and sustainable investment.





Community Event

RECORDING

Earth Intelligence for Security and Climate Resilience: From risk to action

Purpose and Relevance

This community event examined the intersection of security, climate change, and societal resilience, showcasing how Earth Intelligence enables monitoring, mitigation, and adaptation to interconnected risks. It highlighted operational initiatives and solutions and fostered dialogue among EO providers, policymakers, and users.

This topic is especially important for GEO and the broader community because, as climate impacts intensify through extreme weather, environmental degradation, and resource disruptions, societies need Earth Intelligence to protect populations, critical infrastructure, and economic stability through informed, collaborative action.



Moderators and Speakers



Alexia Freigneaux
CNES
Moderator



Sergio Albani
EU SatCen
Moderator



Inês Mendes
EU SatCen
Speaker



Frédéric Bretar
CNES
Speaker



Thibault Valentin
European Commission
Speaker



Pascal Peduzzi
UNEP
Speaker



Dimitrios Mentis
World Resources Institute
Speaker



Hugo Avilés
IGM, Ecuador
Speaker

Outcomes and Actions

The community event underscored that Earth Intelligence is a transformative approach for confronting the interconnected challenges of security, climate change, and societal resilience. By converting EO data into actionable insights, it empowers stakeholders to move from reactive crisis management to proactive decision-making. Yet, its full promise remains constrained by fragmented technical ecosystems and siloed organizational practices.

Speakers emphasized that the main obstacle is not data availability but integration and coordination: institutions struggle to share information and align efforts across domains.









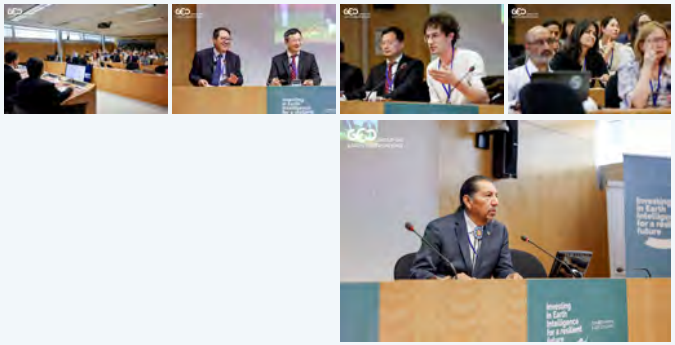


To unlock the true potential of Earth Intelligence, participants called for concrete actions. First, deeper cross-sector partnerships must link space agencies, research institutions, NGOs, and private innovators. Second, investment is needed in intuitive, user-centred tools that translate complex datasets into clear, decision-ready products. Finally, policy frameworks should prioritize long-term resilience over short-term reactive fixes. Scaling operational solutions and expanding tool accessibility for all users are essential steps toward a more resilient future.

SHOWCASES



Showcase Session 1



Moderators



Guifei Jing
Programme Board



Yong Pang
Programme Board

Unlocking Earth Intelligence: Fast, free imagery exploration and analysis in the browser

This showcase presented a free, open-source web application for rapid access to current and historical satellite imagery worldwide. Featuring Landsat 4–9, Sentinel-1 and -2, and annual land cover products, the platform enables users to explore, compare, and analyze decades of EO data without login or credentials. Live demonstrations highlighted applications including flood and wildfire monitoring, urban change analysis, crop history, and oil spill detection. Key features included fast image search, multispectral visualizations, time-series animation, change detection, Sentinel-1 radar analysis, and flexible data sharing. Participants also received QR codes linking to the platform and tutorials for continued exploration.



Steve Kopp
Esri

GEOARC Action for Earth Intelligence: From data to services for global ecosystem monitoring

The Global Ecosystem and Environment Observation Analysis Research Cooperation (GEOARC) reported recent progress and achievements, including its 16m global land use and land cover (LULC) products, the Asia-Oceania Environmental Monitoring (AOEM) platform, the AOGEO Task Group 7 session, and future priorities. It presented EO and geospatial datasets for ecosystem monitoring and assessment and detailed joint activities with Cambodia, Pakistan, Ghana, and ADPC. The showcase also highlighted collaboration on data contribution, alignment with the IUCN Global Ecosystem Typology, joint map validation, and satellite data integration in support of the Global Ecosystems Atlas.



Zhong Bo
AIR-CAS

Fengyun Meteorological Satellites Support Early Warnings for All

In this showcase, the specific measures of China's Fengyun meteorological satellites supporting UN's Early Warnings for All initiative were introduced. Fengyun satellites contribute to global meteorological disaster prevention and mitigation, using systematic, coordinated observations to detect meteorological elements and extreme weather events. Powered by AI, Fengyun satellites support the development of full-chain operational solutions, offering near real-time monitoring and emergency response services to the international community.



Zheng Wei
NSMC, China

Relational Earth Intelligence: Indigenous frameworks for biodiversity and ethical AI governance

The GEO Indigenous Alliance, with Space4Innovation and support from Environment and Climate Change Canada, introduced a pilot methodology for identifying relational values within biodiversity observation systems, alongside practical elements from the Indigenous-led Ethical AI Biodiversity Toolkit. Together, these resources explore how Indigenous knowledge, governance, consent, accountability, and interpretation can inform EO and AI-enabled biodiversity systems without reducing Indigenous relationships with land, species, and ecosystems to extractive data points. The showcase highlighted how these tools can support GEO priorities in ecosystems, biodiversity, carbon management, and open knowledge infrastructure, while opening pathways for responsible testing, adaptation, and collaboration.



James Rattling Leaf Sr.
GEO Indigenous Alliance

How to Achieve Scalable Flood Risk Protection Through Automation and Parametric Insurance?

This showcase conveyed how advances in EO, hydrological modelling, and ML enable the operational scaling of parametric flood insurance. While parametric solutions are widely used for several natural hazards, flood risk remains challenging due to its spatial complexity and strong local variability. This showcase demonstrated how these challenges can be addressed through an integrated scientific and insurance-driven approach.



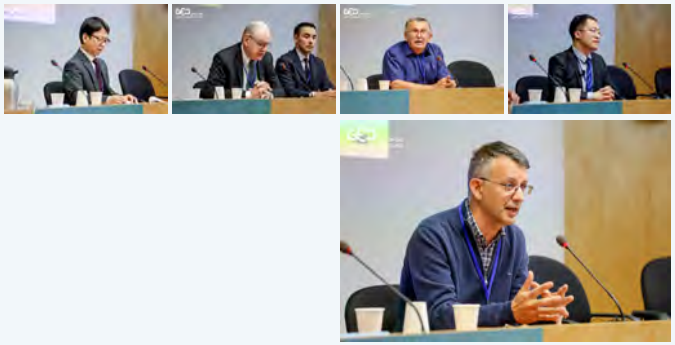
Amaury Alloyer
Liberty Mutual Re



Victor Bouton
Liberty Mutual Re

RECORDING

Showcase Session 2



Moderators



Alexis Foussard
Programme Board



Thierry Ranchin
Programme Board

Strengthening Trust in EO for Regulatory Policy: The Copernicus4GEOGLAM Validation Service

This showcase presented a reproducible framework for independently validating retrospective EO LULC maps, developed under the Copernicus4GEOGLAM country-level support service. Combining probability-based sampling, field surveys, and interpretation of VHR satellite imagery, the approach supports reliable validation of historical reference data for policy and regulatory applications, including the EU Deforestation Regulation. The framework has been successfully applied to validate a 2020 national land use map in Côte d'Ivoire, with ongoing applications in Cameroon and Honduras. By separating map production from evaluation, it strengthens the credibility and operational use of EO-derived products for environmental monitoring and decision-making.



Michele Meroni
Joint Research Centre

Advancing Earth Intelligence with DIAS: Co-creating an agricultural drought early warning system in Ghana

This showcase highlighted the Data Integration and Analysis System (DIAS), a GWP Enabling Mechanism that integrates EO, climate, weather, and other datasets to support decision-ready applications and advance Earth Intelligence. The presentation featured the 2025 Ghana Drought Warning System, co-developed with local disaster management agencies and researchers using DIAS data, including satellite observations, rainfall forecasts, and topographic information. It also emphasized capacity development through training on drought processes, model interpretation, and practical use of the early warning system.



Masaki Yasukawa
University of Tokyo

Co-Designing Earth Intelligence: CropWatch Cloud updates and impact stories from developing nations

This showcase demonstrated how GEOGLAM CropWatch applies co-design principles to deliver Earth Intelligence for agriculture and food security. It highlighted CropWatch Cloud updates, including crop mapping, drought and flood monitoring, and yield prediction, with examples from Nigeria and Thailand. The presentation showcased a replicable framework integrating EO into agricultural monitoring through collaboration, capacity building, and South-South partnerships across Africa, Southeast Asia, and Latin America.



Miao Zhang
AIR-CAS

JackDaw: GeoRAG Earth Intelligence turning agriculture, climate, and biodiversity data into actionable knowledge

This showcase introduced JackDaw, a metadata-driven geospatial large language model (GeoLLM) and geographic retrieval-augmented generation (GeoRAG) environment that transforms EO, climate, agriculture, and biodiversity data into actionable Earth Intelligence. Rather than treat the language model as truth, JackDaw connects user queries to authoritative datasets, validated analytical services, and standards-based metadata to generate traceable insights. Demonstrations highlighted applications in crop stress detection, climate adaptation, land use change monitoring, and biodiversity assessment, with outputs such as maps, risk alerts, recommendations, and provenance records. JackDaw provides a reproducible approach for delivering trustworthy insights to researchers, policymakers, and land managers.



Karel Charvat
Plan4all

Earth Intelligence for Plastic Transport Modelling in the Ecuadorian Ocean Through the Interinstitutional RuPO Initiative

This showcase presented the RuPO (La Ruta del Plástico al Océano) initiative, which is developing an EO and GIS-based tool to model plastic waste transport from Ecuador's rivers to the ocean. By integrating geospatial data and contributions from public institutions, academia, NGOs, and communities, the project identifies pollution sources and priority intervention areas to support environmental management. It also aims to establish a replicable approach across Latin America to strengthen marine conservation and reduce plastic pollution.



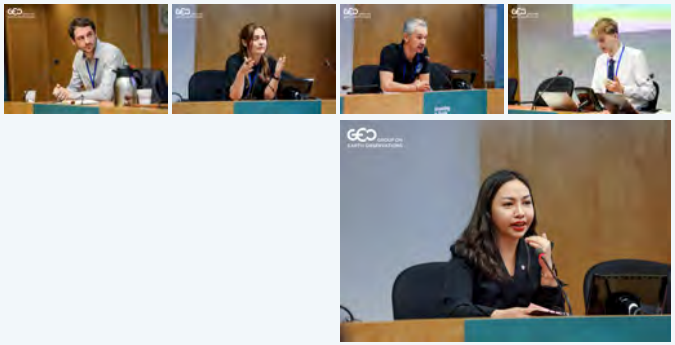
Francisco Galárraga
IGM



Carl Nettleton
OpenOceans Global

RECORDING

Showcase Session 3



Moderator



Alexis Foussard
Programme Board

Showcasing the Global Heat Resilience Service: Prototype demonstrations

This showcase presented the partner landscape of GHRS, a GWP Pilot helping cities translate climate data into actionable decisions for heat risk management, emergency response, and long-term adaptation planning. It highlighted key activities, including the C40 Cities and IBM Heat Insights Tool for heat risk assessment and green infrastructure planning in São Paulo, Salvador, and Freetown; Alibaba Cloud and Haina Academy of Engineering's AI-driven urban heat pilots in China; and Helios' mission to monitor urban heat islands (UHI) and make critical heat-risk data freely accessible to the public. The showcase also shared early findings from GHRS's methodological assessment to support a scalable global heat resilience service.



Martyn Clark
GHRS



Max Burrow Klucar
Helios

VALORADA's Decision-Ready Climate Risk in Action

The showcase presented the VALORADA project, which transforms EO, climate information, and municipal data into decision-ready climate risk insights for local and regional authorities. It highlighted the co-design approach, climate impact chains, locally relevant indicators, and outputs such as the resilience data catalogue and dashboard components. Demonstrations from Gabrovo and Burgas (Bulgaria), Přerov and Mladá Boleslav (Czechia), Occitanie (France), Molise (Italy), and Central Greece showed how the tools support adaptation planning, monitoring priorities, and evidence-based decisions under uncertainty, with lessons for wider GEO uptake.



Mónica Miguel-Lago
EARSC

From Demonstrator to Service: Operational integration of high-resolution methane EO into European statistical workflows

This showcase presented GESat GEN1, a European methane-monitoring mission operated by Absolut Sensing as an emerging Copernicus Contributing Mission, launched in January 2025 and operational since April 2025. It demonstrated high-resolution methane hotspot detection and quantification in collaboration with ESA and the Copernicus Rapid Response Desk and explored pathways to integrate such data into European methane statistics and policy indicators. The presentation outlined an end-to-end roadmap covering satellite tasking, data integration, and uptake by national statistical services and regulators, with a focus on stable products, machine-readable metadata, uncertainty information, and operational service commitments to transition methane EO from pilots to trusted statistical infrastructure.



Nicolas Fabre
Absolut Sensing

Policy-in-Practice Hub: Bringing EO into policy systems

The Policy-in-Practice Hub (PiP Hub), developed by the Centre for Sustainability and Resilience at ESPI, is an implementation platform designed to translate EO evidence into institutional action. While EO capabilities are technically mature, integration into public decision-making often remains fragmented or pilot-based. The PiP Hub addresses this gap by working directly with public institutions to embed EO into policy cycles, regulatory frameworks, and operational systems. Initial pilots focus on infrastructure resilience (energy, transportation, water, and food systems), with potential replication across regions. This showcase presented the Policy-in-Practice model, early implementation design, and opportunities to collaborate with GEO partners seeking stronger application-driven impact.



Jara Villanueva
ESPI

RECORDING







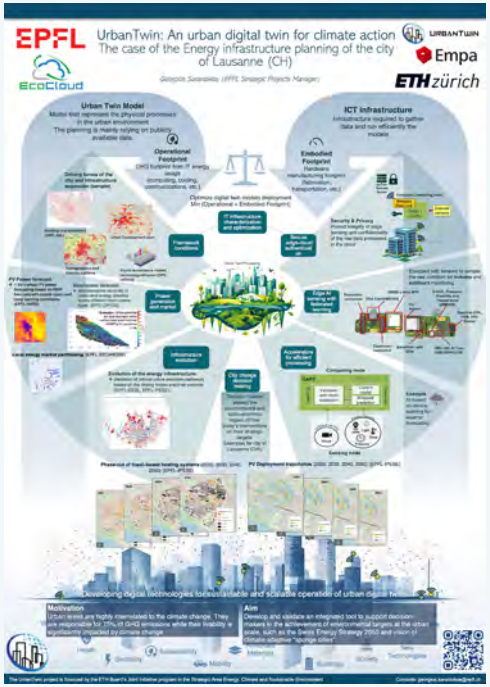

POSTERS





TEMBO Africa: Transformative Environmental Monitoring to Boost Observations in Africa

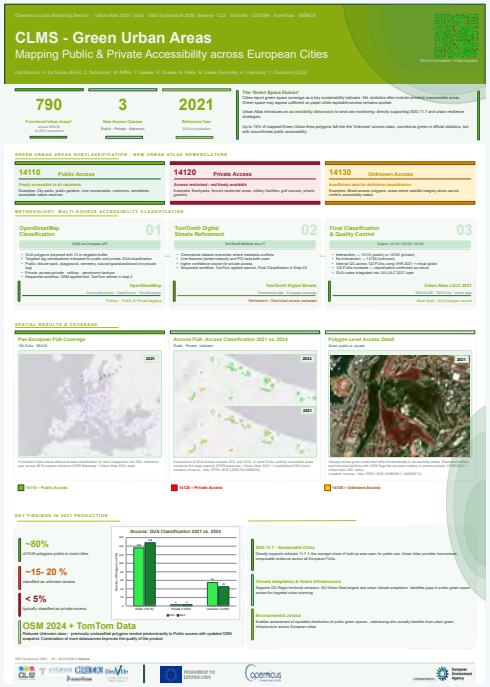
Mark Noort
TEMBO Africa



UrbanTwin: An urban digital twin for climate action

The case of the energy infrastructure planning of the city of Lausanne (CH)

Georgios Sarantakos
EPFL



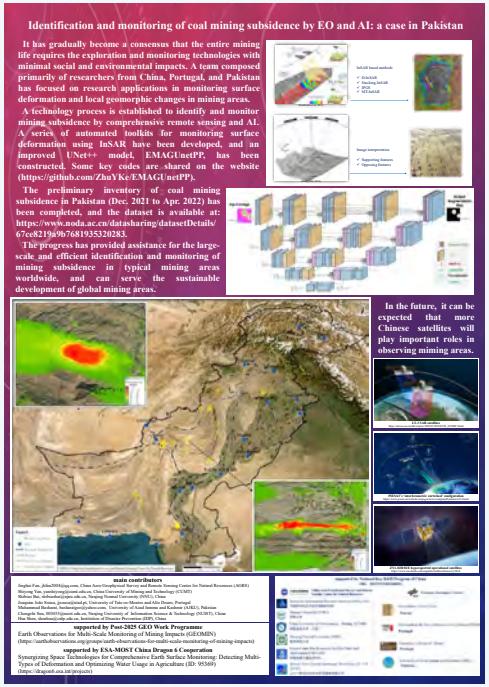
CLMS - Green Urban Areas: Mapping Public and Private Accessibility Across European Cities

A. De Sousa
EEA
C. Schleicher, M. Riffler, T. Gasber, R. Dratwa, A. Pasik, R. Leska
GeoVille
A. Lhernould, Y . Courmont
CLS



Earth Intelligence Applied to Geospatial Modelling of Ocean Plastic Pollution Pathways in Ecuador

Carl Nettleton, Davida Streett, Shauna Buffington
OpenOceans Global
Francisco Galárraga, Martha Villagómez, Ricardo Elizalde
IGM, Ecuador
Carlos Martillo, Maria José Marin, Divar Castro, Elvis Espinoza
ESPOL



Identification and Monitoring of Coal Mining Subsidence by EO and AI: A Case in Pakistan

Jinghui Fan
AGRS, China

Shiyong Yan
China University of Mining and Technology

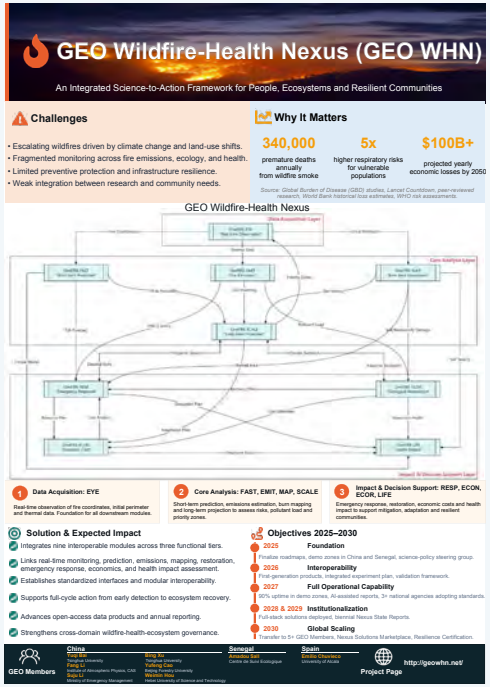
Shibiao Bai
Nanjing Normal University

Joaquim João Sousa
University of Trás-os-Montes and Alto Douro

Muhammad Basharat
University of Azad Jammu and Kashmir

Chengzhi Sun
Nanjing University of Information Science & Technology

Hua Shen
IDP, China



GEO Wildfire-Health Nexus (GEO WHN): An Integrated Science-to-Action Framework for People, Ecosystems, and Resilient Communities

Yuqi Bai, Bing Xu
Tsinghua University

Fang Li
IAP-CAS

Suju Li
MEM, China

Yufeng Cao
Beijing Forestry University

Weimin Hou
Hebei University of Science and Technology

Amadou Sall
Centre de Suivi Écologique

Emilio Chuvieco
University of Alcalá

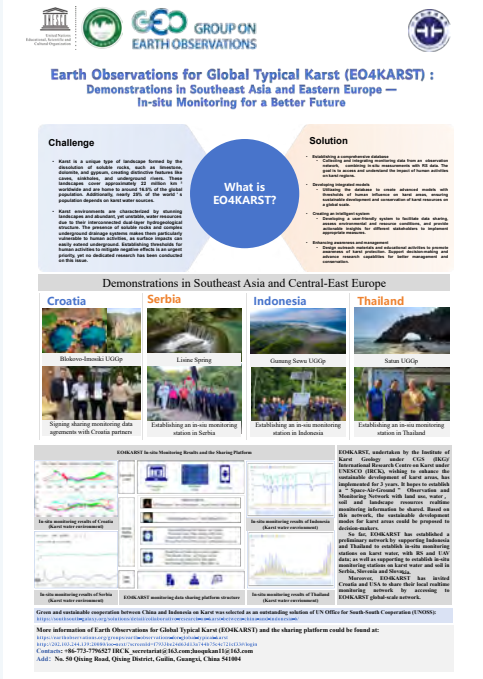
Long-Term High-Altitude Observations of Cryospheric Essential Climate Variables in Bhutan

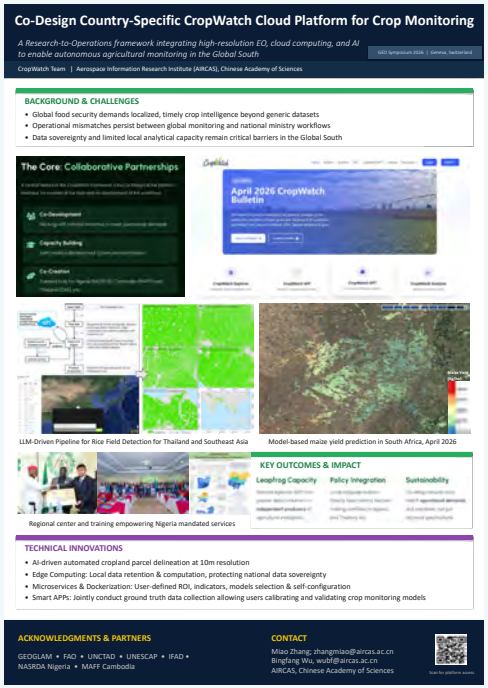
Rebecca Gugerli, Cécile Pellet, Pema Eden, Sonam Lhamo, Kathrin Naegeli, Karma Karma, DB Gurung, Nadine Salzmann
MeteoSwiss, SLF, University of Zürich, University of Fribourg



Earth Observations for Global Typical Karst (EO4KARST): Demonstrations in Southeast Asia and Eastern Europe

Benteng Bi, Qukan Luo, Chunlei Tang, Yang Cheng
EO4KARST





Co-Design Country-Specific CropWatch Cloud Platform for Crop Monitoring

CropWatch Team
AIR-CAS



JackDaw for GEO Earth Intelligence: Operationalizing "Earth Intelligence for All" Through Metadata-Driven Tool-Using GeoLLMs

Karel Charvat
Plan4all

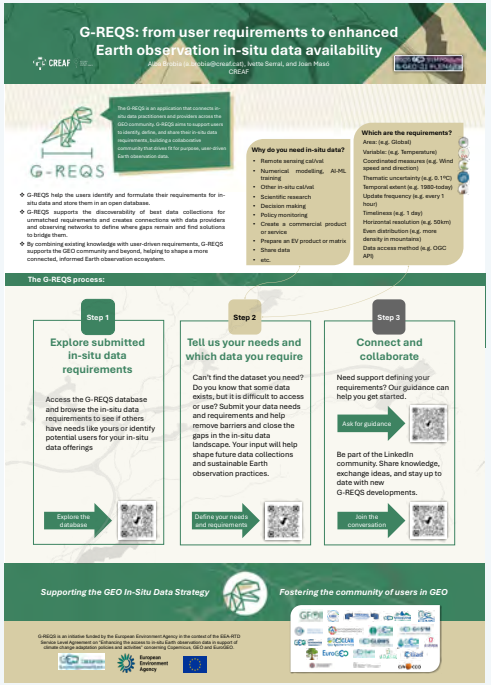
Digital Chemical Earth: Investing in Geochemical Intelligence for a Resilient Future

Bimin Zhang, Lijun Wang
UNESCO-ICGG



G-REQS: From User Requirements to Enhanced Earth Observation In-Situ Data Availability

Alba Brobia, Ivette Serral, Joan Masó
CREAF





Monitoring Coastal Erosion in Ghana: Coastal Erosion Information for an Integrated Coastal Zone Management Strategy and Marine Spatial Planning

Patrick Nii Lante Lamptey, Julia Quaicoe, Ebenezer Ntsiful
GEO-LDN

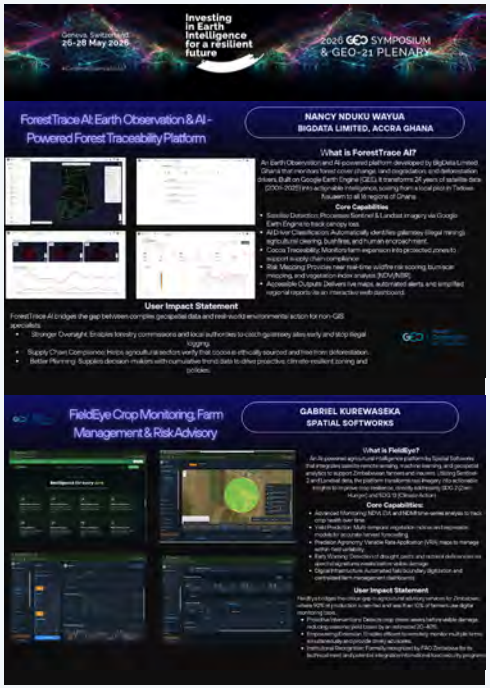


ForestTrace AI: Earth Observation and AI-Powered Forest Traceability Platform

Nancy Nduku Wayua
GEO Youth CoP

FieldEye Crop Monitoring, Farm Management and Risk Advisory

Gabriel Kurewaseka
GEO Youth CoP





CLOSING SESSION



Closing Session

RECORDING

Moderators and Speakers



Amos Kabo-Bah
Programme Board
Moderator



Yana Gevorgyan
GEO Secretariat
Speaker



Evangelos Gerasopoulos
Programme Board
Speaker

After two days of productive and collaborative exchange, the final session offered a chance to take stock of the ground covered and to look ahead. Moderator Amos Kabo-Bah, Programme Board Co-Chair, framed the session not as a closing but as a recognition that the work of the GEO community continues well beyond any gathering.

The session opened with a video recap of the Symposium, drawing together moments from across both days. Following the video, session rapporteurs from across the town halls, ODOK sessions, Regional GEO sessions, and community events shared rapid summaries of what had been discussed and decided, conveying the breadth and energy of what had taken place.

From the town halls, two recurring themes emerged: the importance of co-design and co-production as the foundation of genuine impact, and the need for clear, user-centred indicators that can demonstrate outcomes to donors and decision-makers rather than simply record outputs. The responsible integration of AI into Earth Intelligence, and GEO's potential role as a trusted broker in that process, was identified as a niche that the community should actively pursue.

The Regional GEO session reports underscored a consistent finding across all four sessions: that technology, however powerful, is not sufficient on its own. Locally led and locally owned partnerships remain the most durable path to impact, and the connections between regional platforms and global GEO Work Programme activities need to deepen further. To this end, several community events reported the launch of new collaborative products or projects during the Symposium itself, including the GEO Indigenous Alliance Knowledge Hub and Ethical AI Biodiversity Toolkit, the GEO Youth Mentorship Programme, and a joint activity on synergies across the three Rio conventions that will kick off at the upcoming AfriGEO Symposium in Nigeria.







Programme Board Co-Chair Evangelos Gerasopoulos extended thanks to all participants, as well as the Programme Board, Symposium Programme Committee, session organizers, and GEO Secretariat staff. GEO Secretariat Director Yana Gevorgyan closed the session by launching the GEO Community Space, an online platform for the GEO community to continue the conversations started at the Symposium, connect across GEO Work Programme activities, and build collaborations. The launch of the GEO Community Space provided a powerful bridge from dialogue to action, emphasizing that the energy and commitments generated over two days do not belong to the event itself but to the community that will carry them forward.



Investing in Earth Intelligence for a resilient future

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ANNEXES



Annex A: GEO Work Programme Activities Present

GFOI
Global Forest Observations Initiative

GEO BON
Group on Earth Observations Biodiversity Observation Network

GEOGLAM
GLOBAL AGRICULTURAL MONITORING

GEO GLOWS
GLOBAL WATER SUSTAINABILITY

GEO LAND DEGRADATION NEUTRALITY

GSNL

GOS4M

GEO Earth Observations for Disaster Risk Management

GEO COLD REGIONS

GEO Human Planet

GEO MOUNTAINS
Observing Mountain Environments

PDRS

GEO A Decision-Making System for Slope Risk Deduction

GEO Earth Observations for Global Typical Karst

GEO EO4WEF
EO DATA FOR THE WATER-ENERGY-FOOD NEXUS

GEO WETLANDS

GEO Wildfire-Health Nexus

GEOARC

Global Heat Resilience Service

GEO In Situ Observations and Modeling for Weather, Water, Environment, and Climate Services in Africa

GEO AQUA WATCH

GEO Arctic GEOSS

GEO HEALTH
COMMUNITY OF PRACTICE

GEO Earth Observations for Multi-Scale Monitoring of Mining Impacts

GEO BLUE PLANET

GEO Nexus on Climate, Energy, and Urbanization

SPACE-SECURITY Pilot Initiative

GEO Urban Heritage Climate Observatory

GEO Artificial Intelligence for Earth Observations

DIAS
Data Integration & Analysis System

GEO Data and Knowledge Working Group

Digital Earth AFRICA

GEO Digital Earth Approaches for GEO

Digital Earth PACIFIC

GEO Disaster Risk Reduction and Adaptation Working Group

EARTH OBSERVATIONS FOR THE SUSTAINABLE DEVELOPMENT GOALS

GEO Europe-Africa EO Data Sharing for EW/Climate/DRR

GEO CRADLE

GEO Connected Community: Advancing Communication Infrastructure and Services

GEO Indigenous Alliance

GEO Youth Community of Practice

GEO Global UAV Observation Network

GEO Women+

GEO Resilient Cities and Human Settlements Working Group

GEOValue
Measuring Impacts, Understanding Value

Annex B: List of Acronyms

ADPC	Asian Disaster Preparedness Center
AfriGEO	African Group on Earth Observations
AGRS, China	China Aero Geophysical Survey and Remote Sensing Center for Natural Resources
AI	Artificial intelligence
AI4EO	Artificial Intelligence for Earth Observations
AIR-CAS	Aerospace Information Research Institute, Chinese Academy of Sciences
AmeriGEO	Americas Group on Earth Observations
AOEM	Asia-Oceania Environmental Monitoring
AOGEO	Asia-Oceania Group on Earth Observations
C40 Cities	C40 Cities Climate Leadership Group
CAS	Chinese Academy of Sciences
CBAS	International Research Center of Big Data for Sustainable Development Goals
CBD	Convention on Biological Diversity
CDE, University of Bern	Centre for Development and Environment, University of Bern
CEOS	Committee on Earth Observation Satellites
CH	Switzerland
China CDC	Chinese Center for Disease Control and Prevention
CLMS	Copernicus Land Monitoring Service
CLS	Collecte Localisation Satellites
CMCC	Euro-Mediterranean Center on Climate Change
CNES	National Centre for Space Studies, France
CNR, Italy	National Research Council of Italy
CREAF	Centre for Ecological Research and Forestry Applications
CREWS Initiative	Climate Risk and Early Warning Systems Initiative
CSIR	Council for Scientific and Industrial Research, South Africa
CSTEC	China Science and Technology Exchange Center
DE Africa	Digital Earth Africa
DE Pacific	Digital Earth Pacific
DIAS	Data Integration and Analysis System
DK-WG	Data and Knowledge Working Group
DLR	German Aerospace Center
DMP	Data Management Plan
DRR	Disaster risk reduction
DRRA-WG	Disaster Risk Reduction and Adaptation Working Group
DSTI, South Africa	Department of Science, Technology and Innovation, South Africa
EARSC	European Association of Remote Sensing Companies
EC	European Commission
ECMWF	European Centre for Medium-Range Weather Forecasts
ECV	Essential Climate Variable
EEA	European Environment Agency
ENVRI Hub	ENVironmental Research Infrastructures Hub
EO	Earth observation
EO4DRM	Earth Observations for Disaster Risk Management
EO4KARST	Earth Observations for Global Typical Karst
EO4SDG	Earth Observations for the Sustainable Development Goals

EOTEC DevNet	Earth Observation Training, Education, and Capacity Development Network
EPFL	Swiss Federal Technology Institute of Lausanne
EPOS	European Plate Observing System
ESA	European Space Agency
ESPI	European Space Policy Institute
ESPOL	Escuela Superior Politécnica del Litoral
Esri	Environmental Systems Research Institute
ESSC	European Space Sciences Committee
EU	European Union
EU SatCen	European Union Satellite Centre
EuroGEO	European Group on Earth Observations
FAO	Food and Agriculture Organization
GCOS	Global Climate Observing System
GEO	Group on Earth Observations
GEOARC	Global Ecosystem and Environment Observation Analysis Research Cooperation
GEO BON	GEO Biodiversity Observation Network
GEOCRI	GEO Cold Regions Initiative
GEOGLAM	GEO Global Agricultural Monitoring
GEOGLOWS	GEO Global Water Sustainability
GEO-LDN	GEO Land Degradation Neutrality
GeoLLM	Geospatial large language model
GeoRAG	Geographic retrieval-augmented generation
GEO-UAV	Global UAV Observation Network
GEOValue	Understanding the Impacts and Value of Earth Observations
GEO WHN	GEO Wildfire-Health Nexus
GEO Youth CoP	GEO Youth Community of Practice
GFOI	Global Forest Observations Initiative
GHRS	Global Heat Resilience Service
GHSL	Global Human Settlement Layer
GIAT	GEO EO Impact Assessment Toolkit
GIS	Geographic information systems
GIZ	German Agency for International Cooperation
G-REQs	Geospatial In-Situ Requirements
GWP	GEO Work Programme
IAP-CAS	Institute of Atmospheric Physics, Chinese Academy of Sciences
IBM	International Business Machines Corporation
ICIMOD	International Centre for Integrated Mountain Development
ICOS	Integrated Carbon Observation System
ICOS ERIC	ICOS European Research Infrastructure Consortium
IDEAM, Colombia	Institute of Hydrology, Meteorology and Environmental Studies, Colombia
IDP, China	Institute of Disaster Prevention, China
IGAC, Colombia	Geographic Institute Agustín Codazzi, Colombia
IGM, Ecuador	Military Geographic Institute, Ecuador
IGSNRR-CAS	Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
IPEO	Inter-Agency Hub for Procurement of Earth Observation Imagery
ITC, University of Twente	Faculty of Geo-Information Science and Earth Observation, University of Twente
IUCN	International Union for Conservation of Nature
JAXA	Japan Aerospace Exploration Agency
JRC	Joint Research Centre, European Commission
KTH	KTH Royal Institute of Technology
Liberty Mutual Re	Liberty Mutual Reinsurance

LULC	Land use and land cover
MEM, China	Ministry of Emergency Management, China
ML	Machine learning
MNR, China	Ministry of Natural Resources, China
MRI	Mountain Research Initiative
MRV	Monitoring, reporting, and verification
NGO	Non-governmental organization
NINH, China	National Institute of Natural Hazards, China
NOA	National Observatory of Athens
NOAA	National Oceanic and Atmospheric Administration, United States
NPEC	Northwest Pacific Region Environmental Cooperation Center
NSMC, China	National Satellite Meteorological Center, China
NSSC-CAS	National Space Science Center, Chinese Academy of Sciences
ODOK	Open Data and Open Knowledge
OPIDoR	Optimiser le Partage et l'Interopérabilité des Données de la Recherche
PMOD/WRC	Physical Meteorological Observatory in Davos/World Radiation Center
R2O	Research-to-Operations
RCEES-CAS	Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
RCHS-WG	Resilient Cities and Human Settlements Working Group
RCMRD	Regional Centre for Mapping of Resources for Development
RuPO	La Ruta del Plástico al Océano
SAEON	South African Environmental Observation Network
SANSA	South African National Space Agency
SDG	Sustainable Development Goal
SLF	Institute for Snow and Avalanche Research, Switzerland
SNGR, Ecuador	Secretariat for Risk Management, Ecuador
SPC	The Pacific Community
SSAU	State Space Agency of Ukraine
TEMBO Africa	In Situ Observations and Modeling for Weather, Water, Environment, and Climate Services in Africa
TGN	Tod'Aérs Global Network
UAV	Unmanned aerial vehicle
UENR	University of Energy and Natural Resources
UHI	Urban heat island
UNCCD	United Nations Convention to Combat Desertification
UNDRR	United Nations Office for Disaster Risk Reduction
UNEP	United Nations Environment Programme
UNEP-GRID	UNEP Global Resource Information Database
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCO-ICGG	UNESCO International Centre on Global-Scale Geochemistry
UNFCCC	United Nations Framework Convention on Climate Change
UN-GGIM	United Nations Committee of Experts on Global Geospatial Information Management
UNOOSA	United Nations Office for Outer Space Affairs
VHR	Very high resolution
WMO	World Meteorological Organization
WOCAT	World Overview of Conservation Approaches and Technologies



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GEO GROUP ON EARTH OBSERVATIONS

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