



# Earth Intelligence For All GEO POST 2025 STRATEGY

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## INTRODUCTION

Since its creation in 2005, the Group on Earth Observations (GEO) has facilitated open access to data, developed services, and coordinated enhanced use of Earth observation for the benefit of society.

Recognizing the urgent, complex challenges the planet is facing, **GEO**, as the intergovernmental partnership on Earth observation, **is uniquely positioned to deliver insights that can inform and unlock strategies and action to address these challenges coherently and equitably.** 

However, to ensure that these insights are available and lead to action, there must be a shift in how Earth observation data is provided and used. We can no longer rely on the intrinsic value of data, we must actively shape them into meaningful resources that address contemporary challenges.

At this moment in history, GEO is well positioned to build on its foundations and manage this transition from Earth observations to the broader concept of Earth intelligence. This strategy defines this concept, and articulates the partnership's refined vision, mission and goals, as well as the operating model that is required to deliver them.





### **CONTEXT:** INTEGRATED CHALLENGES, BUT A FRAGMENTED RESPONSE

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Our planet, and the people who depend on it, face environmental challenges that are daunting not only in their quantity, but also in their increasing complexity.

Chief among these is the so-called **triple planetary crisis** of climate change, biodiversity loss and pollution. Global leaders have identified the crisis as a significant obstacle to sustainable development that is compounding societal challenges.



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Food insecurity, for example, is increased both by climate change—through shifts in rainfall, temperature, and weather patterns—and by biodiversity loss—through a reduction in the plants and organisms necessary for fertile soils and clean water. Farmers, fishers and forest-dependent communities, including many indigenous peoples, are among the vulnerable groups most affected by the triple planetary crisis.

At the international level, governments are responding through multilateral agreements and global agendas. Some of these recognize the interlinked nature of the challenge. The final decision from the 27th Conference of the Parties, for example, emphasizes the importance of protecting, conserving, and restoring nature and ecosystems to keep the 1.5°C target alive.

Despite this, the global partnerships and public and private organizations charged with finding solutions are not yet working to address integrated problems in an integrated way.

Earth observation data, if brought together in services that are easy to access and understand, can help decision makers plan and monitor interventions for multiple interconnected challenges and solutions. However, there is a proliferation of data sources and information across the Earth observation sector, limiting their use.



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The quest for solutions is also neither open nor inclusive. The most vulnerable communities are often least likely to have access to trusted information from sources such as Earth observations, and their own knowledge is not routinely included in decision making processes.

Many young people, who should be the catalysts for sustainable development, are currently not acquiring the skills needed to participate in data-driven economies.

This global context sets the stage for a new chapter of GEO. There is a clear need for a global platform where data providers and users from all communities work together, leading to better coordination, greater inclusion, reduced duplication, and faster action.





### WHY GEO: OUR STRENGTHS

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Since its creation as a global partnership on Earth observations in 2005, **GEO has built strong foundations and developed characteristics that put it in a unique position to address complex and interconnected challenges:** 

#### **GEO** is intergovernmental:

governments, as custodians of GEO, drive the implementation and evolution of GEO and work with other stakeholders to create solutions, enhancing trust and ensuring a long-term perspective and sustainability;

#### **GEO is multiscale:**

GEO services provide insights at the global, regional, national and local levels and are designed to be scalable and customizable, allowing for flexible and agile implementation in a rapidly changing world;

# GEO's Strengths

#### **GEO** is transdisciplinary and

**multisectoral:** a global network of partners from across disciplines and sectors can be mobilized to respond to different demands. This transdisciplinary and cross-sectoral nature of GEO makes it a unique proposition compared to other coordination mechanisms;

#### **GEO is inclusive and**

adaptive: GEO develops services with inputs from multiple stakeholders and communities, makes these services accessible through the principle of open knowledge, and brings in new actors and services to meet Earth observation needs.



These characteristics make GEO uniquely positioned to answer the call of the UN Secretary General's report Our Common Agenda<sup>1</sup>, to accelerate an integrated response to the triple planetary crisis and to enhance GEO's global partnership along all stages of the Earth observation value chain—fostering inclusive participation by governments, academia, businesses, and civil society and promoting win-win scenarios to build trust and social capital.



<sup>1</sup> https://www.un.org/en/content/common-agenda-report/assets/pdf/Common\_Agenda\_Report\_English.pdf



### A NEW DIRECTION FROM 2025: EARTH INTELLIGENCE FOR ALL

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As it looks to the future, GEO will make Earth intelligence a fundamental pillar of evidence-based decision making.

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Building on the achievements of the past 10 years, GEO re-affirms its commitment to full and open access to Earth observation knowledge, products and services. The partnership also re-affirms its commitment to promote knowledge sharing and the co-development of services that empower users to make sound environmental decisions, enable economic opportunities and promote good governance.

To ensure that the societal benefits and impact from Earth observations are fully realized, GEO makes two new commitments from 2025.

First, the partnership will pursue global equity in Earth observation, making resources and opportunities available that lead to equal outcomes in communities with varying needs and capacity. Second, the partnership commits to provide not only Earth observations but also Earth intelligence. This is a material shift, completing GEO's transition from a supply-led approach based on available data, to a demand-led approach that provides users with better insights for decision-making, sourced from across the Earth observation value chain<sup>2</sup> and covering multiple thematic areas. It is also a shift in positioning, seeking to make as-of-vet underutilized Earth observation services a more attractive proposition to decision makers in the public and private sector.

#### Therefore, as it looks to the future, GEO will:

Make Earth intelligence a fundamental pillar of evidence-based decision-making for the sustainable development of societies, health, and resilience of life on Earth;

Facilitate a shift from a focus on the development of services to a focus on equitable provision of services to bridge global information gaps;

**Co-design user-orientated services** by first identifying policy and decision-making needs, then designing the services needed to support these needs, then creating the products to enable the services, then identifying the Earth observation components—from across the value chain required to sustain these products;

Integrate Earth observations, models, and

**innovative new technologies** (including artificial intelligence, machine learning, digital twins, cloud computing) into the design of services that provide Earth intelligence;

#### Enhance inclusivity and adaptability in the GEO

**community,** by leveraging expertise and resources from across the scientific community, indigenous peoples and local communities, private sector, civil society and international finance institutions, and by fostering open knowledge.

> EARTH INTELLIGENCE comprises knowledge and insights that inform strategic decisions and empower society to address environmental, societal, and economic challenges. It integrates Earth observation data, socio-economic data, citizen observations, indigenous knowledge and other sources of information and combines this with modelling, predictions and scenario analysis It also requires fostering a closer integration between Earth sciences

> > and social sciences.



# **GEO'S VISION AND MISSION**

OUR VISION: A world where trusted Earth intelligence is universally accessible and empowers society to achieve a sustainable future.

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Building on the achievements of the past two decades, **GEO refines its vision and mission in the new global context.** 

VISION A world where trusted Earth intelligence is universally accessible and empowers society to achieve a sustainable future.

#### MISSION

GEO leverages its unique position as an established intergovernmental body to co-produce user-driven Earth intelligence solutions that inform decisions and accelerate action on global societal and environmental challenges.

#### OUR OFFER At the universal level, GEO empowers anyone to use, and contribute to Earth intelligence to make better decisions for people, planet and nature.

#### **OUR OFFER FOR DIFFERENT STAKEHOLDERS:**

For indigenous peoples and local communities: GEO works with Indigenous communities to amplify their voices in international fora, and to co-produce culturally sensitive, innovative solutions that incorporate traditional knowledge and protect cultural heritage.

**For young people:** GEO empowers young people with inspiration, knowledge, possibilities, networks and direct access to Earth experts and resources and to advocate for change and accountability for the future they want.

**For governments:** GEO offers a unique global platform for governments to share and gain streamlined access to Earth intelligence, creating solutions to national and international challenges and unlocking socioeconomic value for countries.

For the private sector: GEO provides opportunities for Earth observation companies to engage with our global network and contribute commercial solutions to key sustainability challenges. GEO also enables companies in a wide range of sectors, from insurance to healthcare, to better respond to customer needs. For the global general public: GEO creates opportunities for anyone to learn about the potential of Earth observation applications for sound decision-making, to contribute to practical solutions for the planet, and to advocate for change.

For academia & research: GEO provides a global platform for researchers/scientists to share knowledge and co-create practical solutions that address environmental and socio-economical challenges.

For I/NGOs: Access to Earth intelligence and collaboration opportunities across sectors and countries help I/NGOs advocate, plan, implement, and achieve meaningful changes faster and more efficiently.

For the UN: GEO provides the UN system with the integrated, holistic tools to monitor, report and accelerate action on multilateral environmental agreements and sustainable development.



# **GOALS FOR ACTION POST 2025**

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GEO will focus on five goals to respond to the global context and deliver our mission and accelerate an integrated response to the triple planetary crisis:

characterized by efficiency, effectiveness, impact and additionality.

Co-produce transformative programmes that provide trusted Earth intelligence:

GEO will deliver a portfolio of programmes that provide the Earth intelligence needed to unlock transformational change in the way that societies interact with the planet. These programmes will be co-produced with inputs from multiple disciplines, including social sciences, and produce tools for coherent environmental and societal policy decisions, aiming to unlock social innovation and sustainable economic growth. They will be



Increase global equity through accessible Earth intelligence GEO will: Enhance equitable, open access to data and knowledge, through targeted and comprehensive global efforts on open Earth observation data, and by championing open science for Earth observation, including access to code, documentation, and guality control data;

• Create access to, and increase the affordability of Earth observation data and knowledge, by negotiating multi-user licenses, building on the GEO data sharing principles;

 Build Earth observation literacy, regional and local capacity and co-develop good practices.



Integrate new technologies and innovations into Earth intelligence services: GEO will build on its foundations providing sustained full and open access to data and services, but also integrating new technologies, methods and capabilities to respond to new demands.



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# Increase the participation of young people in the development of Earth intelligence:

GEO will include young people—**especially emerging young entrepreneurs and early career scientists**—in the development of Earth intelligence, fostering science, innovation and applications that serve communities and societies and creating job opportunities.



# Invest in integrated activities to raise awareness and resources for Earth intelligence:

**GEO will invest in integrated advocacy, communications, member engagement and resource mobilization.** This will help increase awareness of all stakeholders in the Earth observation value chain and enable the implementation and adequate resourcing of GEO's mission and programmes. GEO's systematic approach across the value chain will strengthen the case for investments in Earth observations, products and services.

As part of its integrated approach to advocacy, communications and resource mobilization, GEO will look beyond governmental funding mechanisms and explore catalytic and innovative finance to scale up GEO initiatives and accelerate the delivery of Earth intelligence.

> TO COME: Infographic on how we work with different partners across the Earth observation value chain.



# A NEW OPERATING MODEL:

WHAT WE NEED TO SUCCEED

To achieve the goals of this strategy, GEO's processes, procedures and structures must be made fit for purpose. GEO seeks to provide trusted, timely, integrated, and sustained Earth intelligence. To achieve this, and the goals of this strategy, GEO's processes, procedures and structures, including the Secretariat, must be made fit for purpose to deliver Earth Intelligence. **This new operating model should be characterized by:** 

#### Accountability and result-orientation:

To enhance the effectiveness of GEO activities, it is essential to establish robust processes and procedures that promote accountability towards users. This involves integrating project management best practices and fostering a culture of transparency. Additionally, the development of a prioritization framework for the GEO Work Programme, along with resource mobilization activities, is crucial. These endeavours should foster innovation, prioritize the realization of benefits and tangible outcomes, and ensure the long-term sustainability of GEO activities for the benefit of its users.

#### Representation and voice:

GEO requires mechanisms and an organizational status that enable meaningful representation at fora and in decision-making processes.

#### Financial sustainability:

The long-term financial viability and implementation of effective and robust resource mobilization efforts are vital to the success of GEO. This entails the creation of a system that enables resource mobilization efforts for GEO activities. This also requires an organizational status that enables GEO to form partnerships itself and benefit from broader funding opportunities.

#### Inclusivity, transparency and participation:

Operations and resources should be committed to the integration of equity, diversity and inclusion in all aspects of GEO's work. To achieve this, GEO must operate and present itself as an equal partnership between governments, communities, businesses and other stakeholders, while retaining governments' role as the ultimate stewards of the partnership. It will also involve fostering stakeholder involvement, maintaining clear, visible and open communication and promoting global participation in GEO events. Increasing translation services and promoting multilingualism would support more effective engagement of the GEO community with GEO activities and events. Roles within GEO and their contribution to its overall direction are to be described transparently.

#### **Regional Growth:**

GEO should increase and improve regional and sub-regional networks, increasing its ability to connect stakeholders within and between geographical regions in ways that work best for them, support implementation of activities at the local level, where they can deliver most impact, and promote knowledge sharing in a way that leverages GEO's global nature.



# HOW WE RECOGNIZE THAT WE ARE SUCCEEDING

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The ultimate measures of success will be lives saved, livelihoods improved, new business opportunities and jobs created, resources used more efficiently, biodiversity protected, policy decisions implemented and other impacts on society and the environment. **Measures to evaluate the implementation of the strategy include:** 

An operating model that is efficient, effective and fit-for-purpose to deliver, with the GEO Secretariat, the GEO Work Programme and operational products and services benefiting the world.

Strengthenedparticipation of indigenous peoples

and local communities, playing a key role in the governance of GEO as well as contributing to and benefitting from its work.

Successful engagement of industries along the Earth observation value chain, including small- and medium-sized enterprise and downstream industries such as finance and insurance and other current or potential end users. How we recognize that we are succeeding A transformed, and well-resourced GEO Work

Programme that responds to the goals identified in this strategy with activities that demonstrate integration across thematic areas and along the Earth observations value chain, with an unrelenting focus on users.

> An increase in the engagement of members in GEO governance and activities, including by providing financial contributions and in-kind support to the GEO Trust Fund and the GEO Work Programme.

An enhanced recognition and trust in GEO by international organizations and multilateral environmental agreements. Success will be lives saved, livelihoods improved, new business opportunities and jobs created, resources used more efficiently, biodiversity protected, policy decisions implemented and other impacts on society and the environment.

## CREDITS

#### Photography

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