GEO-20 - 7-8 May 2025

## Draft GEO Post-2025 Strategy Implementation Plan

 $This\ document\ is\ submitted\ to\ the\ Plenary\ for\ decision.$ 

# Draft GEO Post-2025 Strategy Implementation Plan 2026-2030

Delivering Earth Intelligence for All

#### Foreword

As the Group on Earth Observations (GEO) enters its third decade, we stand on the cusp of a transformative period for Earth observations and Earth intelligence. GEO is proud to present the Post-2025 Strategy Implementation Plan, a roadmap to ensure trusted Earth Intelligence is accessible to all, empowering society toward a sustainable future. Building on two decades of progress, GEO has evolved to respond to the complexities of the world. The Post-2025 Strategy expands the focus beyond Earth observations to embrace Earth Intelligence — a concept that dynamically integrates Earth observation data with socio-economic data, artificial intelligence, and Indigenous and local knowledge to drive informed decision-making across global, national, and regional scales.

This Implementation Plan is the culmination of extensive stakeholder engagement, reflecting the contributions of GEO Members, Participating Organizations, regional partners, and the broader GEO Community. Through global consultations, events, and expert discussions, we have developed a set of actionable steps that will guide GEO's activities over the next five years. These actions will deliver the five strategic goals outlined in the Post-2025 Strategy:

- 1. Co-produce transformative programmes to deliver trusted Earth Intelligence;
- 2. Increase global equity by ensuring accessible Earth Intelligence for all;
- 3. Integrate new technologies and innovation into Earth Intelligence services;
- 4. Enhance the participation of young professionals in the development of Earth Intelligence;
- 5. Invest in integrated communication and advocacy to elevate awareness and mobilize resources for Earth Intelligence.

Addressing today's urgent challenges —climate change, biodiversity loss, disaster resilience, and global sustainability—demands coordinated action. GEO remains committed to an open, fair, and impact-driven approach, ensuring Earth Intelligence benefits everyone everywhere particularly those who are on the frontlines of change.

We extend our deepest gratitude to all who contributed their time, expertise, and vision in shaping this plan. Your dedication and collaboration are the foundation upon which GEO's future successes will be built. Now is the time to turn vision into action. We invite GEO Members, Participating Organizations, Associates, and stakeholders to join us in making 'Earth Intelligence for All' a reality.

#### **GEO Executive Committee**

26 March 2025

## Acknowledgements

The GEO Executive Committee would like to thank all those who contributed to the discussions during the stakeholder engagement for the SIP including: Member country representatives for providing national insights; Programme Board members for their involvement in the development of the new GEO Work Programme structure and evaluation process; Participating Organizations for providing technical and policy insights; and GEO Associates for providing the commercial, not-for-profit, and academic input. Additionally, we are grateful to the organizers of Regional GEO events for providing a platform to socialize the SIP and for building the engagement around Post-2025 Strategy topics; panellists for their dynamic contributions, and delegates for actively participating in feedback sessions and the SIP questionnaire. Lastly, we are grateful to the GEO Secretariat for coordinating the consultative process and drafting the Implementation Plan to reflect the Post-2025 Strategy goals and feedback from various stakeholders.

## **Acronyms**

Al	Artificial Intelligence			
AI4EO	Artificial Intelligence for Earth Observations (GWP activity)			
API	Application Programming Interface			
ARD	Analysis Ready Data			
COP	Conference of the Parties			
El	Earth Intelligence			
EO	Earth Observation			
ExCom	Executive Committee			
EW4All	Early Warnings for All			
GenAl	Generative Artificial Intelligence			
GEOSS	Global Earth Observation System of Systems			
ML	Machine Learning			
NEIRA	National Earth Intelligence Readiness Assessments			
NGO	Non-Governmental Organization			
NSDI	National Spatial Data Infrastructure			
РВ	Programme Board			
РО	Participating Organization			

R2O	Research to Operations
SDGs	Sustainable Development Goals
SIDS	Small Island Developing State
SIP	Strategy Implementation Plan
SMME	Small, Micro and Medium sized Enterprises
UxV	Uncrewed Vehicles
UNDRR	United Nations Office for Disaster Risk Reduction
UNGA	General Assembly of the United Nations
UNOOSA	United Nations Office for Outer Space Affairs
VHR	Very High Resolution
WEF	World Economic Forum

## **Executive Summary**

This Strategy Implementation Plan (SIP) has been developed to deliver the vision in **GEO's Post-2025 Strategy - Earth Intelligence for All,** of a world where trusted Earth intelligence (EI) is universally accessible and empowers society to achieve a sustainable future.

Earth Intelligence comprises integrated Earth and social science derived knowledge and insights that inform strategic decisions, build capacities and empower society to address environmental, societal, and economic challenges. Its design is based on user needs at all scales and across sectors and integrates Earth observation (EO) data, socio-economic data, research and science, citizen observations, Indigenous knowledge and other sources of information and combines this with modelling, prediction and scenario analysis.

Through the concept of EI, the need for GEO to provide targeted, actionable insights, based on EO data, co-created with users to support informed decision-making for a sustainable world is emphasized.

Through extensive consultation, feedback and discussions, a set of preliminary actions has been defined to be undertaken over the next five years, to deliver on each of the five strategy goals. A summary of these suggested goals and actions is provided with detailed tasks, responsible parties, priority level, dependencies, timelines, indicative costs and associated Key Performance Indicators (KPIs) in <u>Annex A</u>.

The suggested actions, roles and responsibilities, timelines, budgets and KPIs will be finalized, prioritized and agreed upon during the implementation period as part of GEO's annual operational planning cycle. All actions will be dependent on funding availability.

To meet Goal 1: Co-produce transformative programmes to deliver trusted Earth Intelligence, GEO shall implement the Post-2025 GEO Work Programme (GWP) with a new Research to Operations (R2O) pipeline of activities, including Accelerators to fast-track new applications and ideas to become impactful operational services. The Post-2025 GWP will also introduce Conveners to foster collaboration and innovation across GEO, and the sharing of ideas and best-practices, and innovation. In addition, Enabling Mechanisms will help to support cross-GEO functions, such as open data, knowledge and infrastructure. A range of suggested actions are identified to ensure that the GWP is a success, including resource mobilization activities, efficient governance mechanisms and capacity building and enhancements to the GEO Infrastructure.

To meet Goal 2: Increase global equity through accessible Earth Intelligence, suggested actions include developing and implementing National Earth Intelligence Readiness Assessments (NEIRAs) to evaluate EI capabilities and identify gaps in selected GEO Member countries; mainstream EO and EI into national policy and enhancing technical cooperation among GEO Members to adopt GEO solutions. A tailored Member Engagement Strategy is envisaged to strengthen GEO's relationships with existing and prospective Members through a structured approach; and to enhance participation of Indigenous Peoples and of Small Island Developing States (SIDS) in GEO. Additional actions are proposed to enhance SIDS's access to and use of EI and co-development of tools and services. Further suggested actions focus on involving GEO Members in the co-design, implementation and verification of products and services from GEO and GWP initiatives. Suggestions are included to ensure fair representation through a balanced GEO governance structure, to promote participation and accessibility; for example, by earmarking funds within the GEO Trust Fund for Member and community engagement (e.g. "Voices for All").

Goal 3: Integrate new technologies and innovation into Earth Intelligence services includes suggestions driven through the GWP and priorities related to filling gaps in data provision such as, leveraging very high resolution (VHR) data including satellite data, Uncrewed Vehicles (UxVs) and in situ data. The actions seek to embed Artificial Intelligence (AI) into GEO activities by identifying AI experts providing capacity building, training materials and resources, creating inventories of and access to AI data and tools through the establishment of a GEO Convener linked via the GEO Infrastructure. The actions aim to provide solutions and AI-based insights to decision makers.

Goal 4: Increase participation of young people in the development of Earth Intelligence suggests actions that aim to facilitate youth representation and participation in various GEO Member country governance structures and to provide dedicated financial and technical support to GEO Youth (members of the GEO Community under 35 years old) and young EO professionals. In addition, strategic capacity building will seek to increase youth involvement within the GWP. Efforts to expand a network of GEO Youth, building strategic relationships with academia and regional and national institutions through the Youth Convener are suggested.

To meet Goal 5: Invest in integrated communication and advocacy activities to raise awareness and resources for Earth Intelligence, actions are proposed to elevate the visibility and understanding of GEO and EI through creation of impact-focused content, enhanced media outreach and community engagement and to ensure content for diverse communities and groups. In addition, GEO will aim to secure high-level political commitments, through targeted advocacy campaigns and expansion of the advocacy network. Finally, actions will seek to secure substantial financial and in-kind commitments through donor engagement and diversification, innovative resource mobilization, proposal development and collaboration along with stronger donor communication and recognition to support ongoing GEO efforts.

Actions related to GEO's enabling environment are proposed, including the review of GEO's current operating model and subsequent implementation of agreed enhancements to ensure a fit-for-purpose operating model.

It is planned that, with periodic prioritisation, refinement and agreement on these SIP actions and their incorporation into annual operating plans - and with sufficient funding - GEO will be positioned to deliver on the Post-2025 Strategy and bring the vision of 'Earth Intelligence for All' to reality. Successful delivery of the strategy depends on the entire GEO community taking ownership and contributing their part to implementation. Together, we can make a real impact.

## Contents

F	oreword	1
Α	cknowledgements	2
Α	cronyms	2
E	xecutive Summary	3
1	Introduction	7
	1.1 Background	7
	1.2 From Earth Observations to Earth Intelligence	7
	1.3 The GEO Post-2025 Strategy Goals	9
2	Towards Earth Intelligence for All	10
	2.1 Context	10
	2.2 Key themes within the SIP	12
	2.2.1 Central role of Members	12
	2.2.2 Enhancing GEO's value proposition and communicating impact	13
	2.2.3 Strengthening efforts to foster collaboration	14
	2.2.4 Alignment to policy, user-centred design and user-driven approach	15
	2.2.5 The key role of free and open data and the GEO Infrastructure	16
	2. 3 Building on the GEO Strategic Plan 2016-2025: Implementing GEOSS	17
	2.3.1 Successes of the GEO Strategic Plan 2016-2025: Implementing GEOSS	17
	2.3.2 Areas of ongoing activity	18
3	SIP Implementation Actions	18
	3.1 Goal 1: Co-produce transformative programmes to deliver trusted Earth Intelligence	19
	3.1.1 Objectives overview	19
	3.1.2 Key objectives, actions and timelines	19
	3.2 Goal 2: Increase global equity through accessible Earth Intelligence	20
	3.2.1 Objectives overview	20
	3.2.2 Key objectives, actions and timelines	21
	3.3. Goal 3: Integrate new technologies and innovation into Earth Intelligence services	24
	3.3.1 Objectives Overview	24
	3.3.2 Key objectives, actions and timelines	24
	3.4 Goal 4: Increase participation of young people in the development of Earth Intelligence	26
	3.4.1 Objectives Overview	26
	3.4.2 Key objectives, actions and timelines	26

;	3.5 Goal 5: Invest in integrated communication and advocacy activities to raise awareness and	
I	resources for Earth Intelligence	28
	3.5.1 Objectives Overview	28
	3.5.2 Key objectives, actions and timelines	28
;	3.6 Enabling Environment	30
	3.6.1 Operating Model	30
;	3.7 Monitoring and Evaluation	31
4	Risk Management	32
5	Next steps	33

Annex A – Preliminary Implementation Actions

## 1 Introduction

#### 1.1 Background

As we approach the 20<sup>th</sup> year since its formation, the Group on Earth Observations (GEO) has built strong foundations promoting and facilitating the use of EO, including through the GEO Infrastructure, to focus on four global priority engagement areas (Sustainable Development Goals, Climate Action, Disaster Risk Reduction and Resilient Cities and Human Settlements) and to address some of the planet's greatest challenges including disasters, habitat loss and food security. In this context, GEO has provided evidence and tools to support decision making and raised awareness of the potential of EO technologies to help understand and plan for these challenges.

Looking to the future, GEO seeks to accelerate efforts to deliver on these objectives along with GEO's expanded ambitions articulated in the **GEO Post-2025 Strategy - Earth Intelligence for All**<sup>1</sup>, including making the outputs from EO more accessible and actionable. This is encapsulated in the phrase: 'Earth Intelligence for All'.

El as a concept is relatively new but seeks to extend the use of EO. The GEO Post-2025 Strategy defines El as: "Earth Intelligence comprises integrated Earth and social science derived knowledge and insights that inform strategic decisions, build capacities and empower society to address environmental, societal, and economic challenges. Its design is based on user needs at all scales and across sectors and integrates EO data, socio-economic data, research and science, citizen observations, Indigenous Knowledge and other sources of information and combines this with modelling, prediction and scenario analysis."

Introducing the concept of EI highlights the need for GEO to provide targeted, actionable insights—based on EO data, co-created with users—to support informed decision-making for a sustainable world.

## 1.2 From Earth Observations to Earth Intelligence

GEO's vision is of a world where trusted EI is universally accessible and empowers society to achieve a sustainable future. GEO's mission is to co-produce user-driven EI solutions that inform decisions and accelerate action on global, societal, and environmental challenges, leveraging its unique position as an established intergovernmental body with a strong and inclusive partnership.

**Table 1** outlines the distinction between EO and EI in shaping the approach to implementing the Post-2025 Strategy and delivering GEO's vision. As indicated, solutions shall seek to move beyond EO imagery and processing to 'decision-ready' products and services which include non-EO technologies' expertise, knowledge of other geospatial data, socio-economic statistics and are informed by Indigenous and local knowledge.

<sup>&</sup>lt;sup>1</sup> Group on Earth Observations (2023) Earth Intelligence for All. GEO POST 2025 STRATEGY.

<sup>&</sup>lt;sup>2</sup> The concept of 'Analysis Ready Data' (ARD) is extended to define 'decision-ready' products and services that provide users with pre-processed or real-time tools that allow users to focus solely on defining areas of interest, viewing, and filtering results to make informed decisions.

Table 1 Comparison of Earth Observations (EO) and Earth Intelligence (EI).

	Theme	Earth Observations (EO)	Earth Intelligence (EI)
	Technology	Relies on traditional data processing and delivery systems.	Leverages AI, ML, digital twins, and cloud computing for deeper insights.
	Processing	Data largely requires expert-led, manual processing to generate insights.	Automated, Al-driven processing integrates data sources into real-time intelligence.
	Decision- Making	Basic data products like reports and maps support but do not directly drive decisions.	Actionable insights directly inform strategic decisions across sectors through self-service, 'decision ready' products and services.
96	Impact	Provides foundational data but with limited immediate societal impact.	Focuses on delivering measurable environmental, societal, and economic impacts.
Data, Services and Use	Scalability	Solutions often need manual adaptation for different scales.	Flexible and scalable solutions designed for global, regional, national, and local use.
Data, Servi	Integration	Focuses mainly on environmental data with limited integration across domains.	Combines EO data with socio-economic data, modelling, and AI technologies.
	Access	Open access to raw EO data but often fragmented and hard to interpret.	Seamless, equitable access to processed, actionable insights tailored to user needs.
People	User Engagement	Limited co-creation with users; data products are often supply-driven.	User-centred design with co-created, demand-driven services for decision-making.
	Fairness	Access is limited, particularly for vulnerable and underserved communities.	Prioritizes global fairness and participation, ensuring all communities can access EI.
	Stakeholder Engagement	Primarily engages government and research sectors.	Actively involves governments, private sector, civil society, Indigenous Peoples, and youth.

There is considerable public, political and societal interest in global environmental issues because of the significant impacts to economies (e.g. through climate-induced crop failures, damage from natural hazards, etc). Environmental issues can compound to impact social cohesion or create civil unrest as life becomes increasingly difficult for affected populations.

Recognising this wider interest in global environmental issues, the *GEO Post-2025 Strategy - Earth Intelligence for All* seeks to reach a wider audience, beyond technical experts, who can benefit from EO data, products and services. For example, EO provides evidence and insights enabling stakeholders in the policy and business communities; those in the resource management and humanitarian sectors; the media and the public to better understand global changes and empower informed decisions. To reach new audiences, effective methods are needed to co-develop and co-produce outputs, where a range of views from different perspectives and domains add value.

The power of GEO's convening role to bring communities together will be essential in both reaching new audiences and connecting different perspectives to create more relevant and impactful solutions.

The GEO Post-2025 Strategy was endorsed at the **2023 Cape Town Ministerial Summit**<sup>3</sup> and set the scope for this **Post-2025 Strategy Implementation Plan (SIP)**. The SIP was mandated in the strategy itself, to set out the path to delivery with allocation of resources and actions.

The transition from EO to EI for All necessitates a balance between strategic top-down approaches with bottom-up approaches. It should be noted that not all Member countries are making this transition from the same starting point. Therefore, baselining the EI capabilities of countries to identify the gaps and devising capacity development efforts are strongly reflected in the SIP actions. Similarly, there are some GWP activities that are more advanced in terms of EI and through their continued development, countries can continue to develop and benefit from these activities, while sharing their experience and knowledge with others as they develop EI.

The Post-2025 Strategy has identified GEO's key priorities, and the SIP sets out how this vision is driven through the GWP and the GEO Infrastructure. In addition, various enabling activities will support the GWP in its delivery, through enhanced governance services, communications and resource mobilization, and a fit-for-purpose operating model.

## 1.3 The GEO Post-2025 Strategy Goals

GEO's Post-2025 Strategy sets out a vision for transformative change within GEO to accelerate and broaden impact from its work. These are based around the five key strategy goals:

#### GOAL 1: Co-produce transformative programmes to deliver 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 characterized by efficiency, effectiveness, impact and additionality.

<sup>&</sup>lt;sup>3</sup> GEO 2023 Cape Town Ministerial Declaration

#### GOAL 2: 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 quality control data.

GEO will also 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. In addition, GEO will enhance Earth observation literacy, bolster regional and local capacity, codevelop effective practices, and cultivate science communicators who bridge the gap between science and society, leading to tangible action.

#### GOAL 3: Integrate new technologies and innovations into Earth intelligence services.

GEO will build on its foundations by providing sustained full and open access to data and services, but also integrating new technologies, methods, knowledge-based processes and capabilities to respond to new demands.

#### GOAL 4: Increase participation of young people in the development of Earth Intelligence.

GEO will seek an increased role for 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.

# GOAL 5: Invest in integrated communication and advocacy 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.

Together, these goals focus on creating a more accessible, innovative, and impactful approach to EI for sustainable development, especially in support of vulnerable communities with the most pressing needs.

## 2 Towards Earth Intelligence for All

#### 2.1 Context

EO technologies and the information derived from them have immense potential to create economic and environmental benefits. According to the World Economic Forum (WEF)<sup>4</sup>, EO could contribute up to USD 3.8 trillion in cumulative economic value by 2030, optimizing decision-making across various industries such as energy, agriculture, urban planning, and financial services. The period from 2024 to 2030 is a critical window of opportunity for incorporating EO solutions into global decision making, and where global uptake of EO could increase by 30%, according to a survey of business leaders (WEF),

<sup>&</sup>lt;sup>4</sup> World Economic Forum – Amplifying the Global value of Earth Observation

driven by the spread of AI and the launch of thousands of new EO satellites. This timeline coincides with key global targets such as the Sustainable Development Goals, the Paris Agreement, and the Kunming-Montreal Global Biodiversity Framework—all set for 2030, giving the opportunity for EO solutions to provide evidence and support decision-making. Therefore, the 2030 horizon for the SIP has been designed to provide impact to these broader global policy agendas.

El has the potential to offer a high return on investment by providing timely evidence and ongoing monitoring of dynamic situations to support decision-making. This can result in economic and environmental benefits that are critical to addressing the pressing challenges of climate mitigation and adaptation, protection of biodiversity, and management of resources in a systemic way. El enables data-driven policymaking, can enhance national resilience and support long-term sustainability efforts.

GEO's mission is for EI to be used at all levels of decision-making and across sectors. In the pursuit of *Earth Intelligence for All*, GEO seeks to extend the reach and impact of EO technologies, data, and insights. By combining remotely sensed EO data with in situ data, there is scope for improved understanding through local validation and context. Further insights and historical context are provided by Indigenous and other forms of local knowledge. While one can obtain images remotely, validation and real understanding is only truly possible with local knowledge, allowing for better insights to be available to decision makers, who will in turn make more informed decisions.

However, EO data also sits within the broader context of other useful datasets and tools including spatial data, socio-economic statistics and technologies such as Al and ML. It is possible to integrate these datasets and approaches into the design of new solutions that leverage these individual components, including automating processing and analysis which draw upon a range of data sources, not just EO. The co-design of such solutions in partnership with professionals from outside of the EO community offers tremendous opportunities to develop integrated products and services and to gain additional insights.

To unlock the potential of EI, and to deliver GEO's vision of "A world where trusted Earth Intelligence is universally accessible and empowers society to achieve a sustainable future", several enablers are needed. These include:

#### Technical enablers:

- A robust GWP that co-produces user-driven, impactful, authoritative services and can transform new innovations into operational or sustained services (via the Research to Operations (R20) pipeline) in full transparency to remain trusted;
- A GEO Infrastructure providing access to trusted EI data, knowledge and insights;
- Availability and accessibility of open data and open-source software through trusted infrastructure.

#### Administrative enablers:

- Governance mechanisms that promote diverse representation and enable effective, agile implementation;
- A Member Engagement Strategy to promote and sustain engagement with GEO and the broader El community;
- A Communications, Advocacy and Resource Mobilization Plan to raise awareness of GEO's impacts and the value of EI while driving resource mobilization;

• Effective data licencing schemes that align with user needs, encourage data sharing, while safeguarding the interests of data producers.

#### Financial enablers:

- **Diverse funding sources**, including research programmes, international cooperation schemes, philanthropy funds etc, for GWP activities;
- Reliable Member contributions to the GEO Trust Fund;
- In-kind contributions which collectively represent a significant resource across GEO;
- Potential earmarking of funds within the GEO Trust Fund to support specific activities;
- Exploration of **new fundraising mechanisms** to expand financial sustainability.

### 2.2 Key themes within the SIP

Several common themes emerged from the Post-2025 Strategy and the stakeholder engagement, highlighting key areas of change that GEO must address during the Post-2025 implementation period. These cross-cutting themes are integral to the strategy's goals and have shaped the preliminary actions outlined in the SIP. By implementing these actions, GEO will advance these core themes, ensuring their successful integration into its future work.

#### 2.2.1 Central role of Members

The GEO Post-2025 Strategy and the 2023 Cape Town Ministerial Declaration reaffirm the crucial role of GEO Members in advancing the organization's mission. The declaration underscores GEO's intergovernmental nature and its multisectoral partnerships, which bring together governments, scientific institutions, the private sector, and civil society. It calls for stronger collaboration among Members and a responsive approach to their evolving needs. Additionally, the declaration reinforces GEO's role in advancing Multilateral Environmental Agreements (MEAs) by integrating EO and EI into decision making, as well as in expanding participation in the GWP and ensuring underrepresented voices are actively engaged. Through these efforts, GEO aims to build a more effective global EO ecosystem.

Beyond 2025, GEO will focus on enhancing Member engagement, advocacy, communications, and resource mobilization. The success of the Post-2025 Strategy will be measured by:

- Enhanced participation in governance structures, strengthening decision-making processes;
- Increased financial and in-kind contributions to the GEO Trust Fund and GWP, ensuring sustainable operations;
- An open, standardized, and operational infrastructure, along with a rich collection of software tools and knowledge products;
- Greater visibility in global policy frameworks, reinforcing GEO's role in international environmental governance.

Governments play a central role in advancing GEO's strategic direction. Their involvement is critical as:

- Policy drivers: governments shape regulatory frameworks that affect the adoption and implementation of EI at national, regional, and global levels;
- **Funders:** governments provide direct financial support and leverage external climate and resilience funds;

- **Users of GEO solutions**: governments integrate GEO services and data into their climate resilience, disaster response, and environmental monitoring strategies;
- **Conveners of partnerships**: governments facilitate cooperation between public agencies, private-sector players, and international bodies to advance EI-driven solutions.

Given these roles, ensuring strong engagement, support, and recognition of GEO Members—while actively recruiting new ones—is essential. To this end, a Member Engagement Strategy has been envisaged (see **3.2.2**). This strategy aligns with the Post-2025 Strategy, defining functions and approaches needed to tackle existing engagement challenges within GEO, while incorporating lessons learned and addressing emerging global trends and threats.

This will be done by proactively identifying and engaging non-member countries, with a focus on underrepresented regions, to expand GEO's global reach and inclusivity. It seeks to revitalize relationships with inactive Members by encouraging their return to GEO governance and facilitating the renewal of financial contributions. It shall seek to foster deeper involvement from Members with sporadic participation, encouraging them to enhance both their political and financial commitments. Finally, it seeks to maintain strong partnerships with GEO's most active advocates and contributors, recognizing their leadership and reinforcing their long-term commitment.

#### 2.2.2 Enhancing GEO's value proposition and communicating impact

GEO recognises the need to improve its communications, including clearly setting out its value proposition, encouraging relevant organizations to engage with it and effectively demonstrating its impact. To achieve this, a Communications, Advocacy and Resource Mobilization Plan has been developed (see **Goal 5**).

This requires amplifying awareness and engagement among the global community with GEO's mission through creating impactful content, leveraging multimedia channels, fostering partnerships, and promoting inclusivity to ensure diverse representation. It is necessary to achieve strong political advocacy for GEO by targeting policymakers, expanding GEO's advocacy network, and forming strategic alliances with global and regional organizations to secure funding and facilitate data and knowledge sharing.

GEO will intensify efforts to highlight EI as a cornerstone of sustainable development and work towards securing of high-level political commitments to accelerate the implementation of international development goals and agreements.

Enhancing GEO's value proposition and articulating its impact is critical to secure financial commitments from diverse donors to support the implementation of GEO's Post-2025 Strategy, grow recognition and foster trust in GEO. This entails demonstrating the impact of GEO's activities, technical expertise and the publication of quality-assured open data and open knowledge. Highlighting GEO's value and impact through effective communication with a wide range of donors and potential donors can fortify GEO's financial foundation and diversify funding sources, particularly when coupled with innovative resource mobilization strategies.

The GEO brand needs to be established as a synonym for EI and must be cultivated to epitomize innovation, global cooperation and impact, in line with its core value proposition.

To this end, the GEO Secretariat has developed a comprehensive brand book encapsulating GEO's value proposition, vision and mission, and a suite of communication assets designed to ensure consistency and clarity in GEO's communications. By adhering to these standards, GEO aims to

enhance its reputation, strengthen its message, and create a cohesive experience for its audience. The brand book underscores safeguarding GEO's reputation by preventing the brand from being mis-used.

Recognizing its diverse audience – donors, technical experts, and policymakers – GEO's communication plan outlines the multifaceted benefits of enhanced communications, tailored to meet distinct needs to maximize engage and support. Some examples are shown below:

#### **Donors:**

 Contribute to large-scale, impactful projects and initiatives aligned with global sustainable development goals and approved by the Executive Committee (ExCom).

#### Technical:

- Enhance corporate reputation by contributing to transformational global initiatives;
- Widespread recognition of tangible impacts of the difference their actions / support makes through GEO Communications storytelling;
- Enhanced corporate reputation by contributing to transformational global initiatives.

#### Policy:

- Demonstrate leadership in promoting innovative data and technologies;
- A global platform for accessing and sharing EI providing an evidence base and creating solutions to national and international challenges and unlocking socioeconomic value.

An objective of this SIP is to communicate GEO's impact effectively, mobilize resources, and engage a broad range of stakeholders. Traditionally, this has been achieved by showcasing GEO activities in delivering impact at events and through case studies. However, the entire GEO Community must play a role in raising awareness of GEO's work and impact and the significance of EI. Improved communication flow across GEO governance bodies and the GEO community is essential to optimise coherence, efficiency and productivity in executing the SIP.

Showcasing GEO's role in addressing global challenges – through impact case studies from GWP activities – demonstrates tangible benefits for the environment, biodiversity and society. Effective communication drives increased engagement and resource mobilization, which is currently limited due to the legal and operational constraints impeding resource mobilization flexibility. GEO aims to establish a coordinated, consistent, and innovative global communication, advocacy, and resource mobilization operations. This will enhance awareness, engagement, trust, and support, enabling stakeholders across social, political, and economic realms will be better equipped to integrate EI into their decision-making processes. A deeper understanding of EI will help identify data and knowledge gaps, fostering collaboration to develop impactful solutions for social and economic growth.

#### 2.2.3 Strengthening efforts to foster collaboration

One of GEO's key strengths lies in its ability to convene diverse experts, decision makers and communities to provide EI solutions in a bottom-up approach. While this is not new, the SIP reinforces GEO's commitment to embedding collaboration, and coordination into the GWP and GEO governance. Expanding the bottom-up collaboration and coordination within GEO will drive innovation, spark creative ideas, and foster greater networking to scale solutions and user engagement.

New mechanisms and approaches to pursue include the GWP itself which proposes new Focus Areas (shown below) and Research to Operations (R2O) pipeline, Convener and Enabling Mechanism

activities to encourage cross-sector and interdisciplinary collaboration. Conveners shall actively create opportunities for engagement, extending beyond knowledge-sharing to foster deeper partnerships.

In addition, there is an urgent need to strengthen collaboration between the research community and industry sectors to accelerate the transition from research to operational implementation. Stronger Industry-Research Integration, bridging the gap between research and industry is critical for turning EI solutions into scalable, real-world applications which could better support decision making.

#### Post-2025 GWP Focus areas

#### Focus areas:

- Agriculture and food security;
- Water and land sustainability;
- Ecosystems, biodiversity and carbon management;
- Weather, hazard and disaster resilience;
- Climate, energy and urbanisation;
- One health.

#### Cross cutting focus areas:

- Open knowledge and infrastructure;
- Community Impact.

Activities shall include forward-looking, outcome-driven work tackling key challenges such as access to data, standards, licensing, etc. Collaboration must extend beyond the current GWP, forging stronger connections with national governments and the national and regional EO / geospatial communities. National and Regional GEOs continue to play a vital role in expanding EO activities, fostering EI, and strengthening regional networks through forums and meetings. Shared ownership and responsibility among these actors are essential to mobilizing action, securing political support and resources for implementation of the Post-2025 Strategy. Mapping how GEO activities support National/Regional GEOs' goals will establish a baseline, identify gaps, reinforcing their role in collaboration.

GEO also provides a platform for private sector engagement, enabling businesses to propose commercial solutions to sustainability challenges while contributing data, expertise and knowledge. This collaboration will enhance the value of EI, strengthen evidence-based decision making and implementation, both in private and public sectors. Collaboration between a private entity and GEO will be based on a charter signed by both parties.

#### 2.2.4 Alignment to policy, user-centred design and user-driven approach

The GWP is key to the delivery of the Strategy, with the Programme Board (PB) continuing its work and its mandate to oversee the GWP development. Actions to achieve many of the goals in the Post-2025 Strategy have been designed into the new GWP structure, with an "unrelenting focus on users". In addition, the new proposal evaluation criteria will ensure that each of the GWP activities themselves are aligned to the Post-2025 Strategy Goals, such as demonstrating clear user needs, service delivery and co-produced products and services, emphasizing collaboration between GEO's technical experts, solution designers, decision-makers and users. Co-designed products, shaped by continuous user input and feedback, are more likely to be successful. Proposed changes to the GWP will ensure user needs are clearly defined and that users form an integral part of the project teams for GWP activities to

integrate EI into decision-making frameworks. In addition, enhancing GEO Infrastructure shall provide a user feedback mechanism and metrics to refine services.

The SIP is designed in a manner that all suggested actions and goals reinforce each other, while championing the GWP. The enabling environment is designed to ensure efficient and effective operation. As is evident from many successful GWP activities, the design and delivery of services has maximum impact when the user need is clearly defined. In the context of GEO, it is important to coordinate activities and resulting products and services that deliver needs associated with (and mandated through) major global environmental and sustainability policies, such as the Sustainable Development Goals (SDGs) and other MEAs. This will ensure maximum and far-reaching impact.

The SIP draws on a combination of a bottom-up approach through the GWP and related activities, as well as strategic elements. Enabling mechanisms are part of the new GWP, ensuring the GWP and other GEO activities are successful. For example, through securing funding and operational support, and with underpinning activities such as the GEO Infrastructure.

The PB oversees the establishment of the multi-year GWP and works to align proposed activities with GEO priorities and resources. The PB shall ensure that such priorities are designed into the GWP activities and to the delivery of relevant products and services. The PB has proposed changes to the evaluation of GWP proposals and specific new criteria which will require potential projects to identify the relevant policy alignments and specific user needs associated with their activities.

The GWP is structured to have activities with clearly identified users and user requirements to address through the delivery of their proposed services or applications. Users can include governments, MEAs, businesses and other stakeholders. The GWP shall identify what new initiatives need to be developed, and which ones re-directed to be more aligned with GEO's priorities.

Once these needs are determined they need to be sustained as operational services through continued funding and links to relevant national and international organizations that can run them.

#### 2.2.5 The key role of free and open data and the GEO Infrastructure

Access to free, quality-assured, and analysis-ready EO data and algorithms opens a wealth of opportunities for government decision makers, NGOs, commercial companies (who can build products and services around data), and for academic research.

The dissemination of knowledge through free data and algorithms has always been a cornerstone of GEO. With the 2023 Cape Town Ministerial Declaration reaffirming GEO's commitment to open and free data exchange, it will remain so. GEO will promote open access to environmental data among its members, identify barriers and support the sharing of data, including by identifying appropriate licensing and reward mechanisms for the data owners.

GEO continues to promote and implement the GEO Infrastructure Data Sharing Principles and Data Management Principles<sup>5, 6</sup> which ensure trusted data, products and services and facilitates access to data. The GEO Infrastructure Data Sharing Principles are as follows:

 Data, metadata and products will be shared as Open Data by design, and making them available as part of the GEO Infrastructure Data Collection of Open Resources for Everyone

<sup>&</sup>lt;sup>5</sup> GEO Data Sharing and Data Management Principles

<sup>&</sup>lt;sup>6</sup> GEO Data Management Principles – Implementation Guidelines

- (Data-CORE) without charge or restrictions on reuse, subject to the conditions of registration and attribution when the data are reused;
- Where international instruments, national policies or legislation preclude the sharing of data as Open Data, data should be made available with minimal restrictions on use and at no more than the cost of reproduction and distribution; and
- All shared data, products and metadata will be made available as soon as possible.

In line with this, the SIP aims to support and promote all activities in this direction and will incorporate the main recommendations once approved from the **GEO Infrastructure Architecture and Finalization of requirements**<sup>7</sup> into specific actions.

The GEO Infrastructure will play a crucial role in supporting users in the Post-2025 Strategy implementation period, providing a means for users to access a range of data, tools and knowledge. Efforts to better organize and expand the content are set out in the GEO Knowledge Hub Strategy for 2025-2026, including new GWP activities to be included, changes to the core architecture and several new features (e.g. improved license management, search function, methods to simplify content publishing).

Beyond 2026, the GEO Knowledge Hub will explore enhanced Application Programming Interface (APIs) integration to seamlessly connect with external data sources, incorporate in situ data and other data sources (e.g. social science data and auxiliary data such as water bodies and country boundaries) and adapt its resources to better serve non-technical audiences, ensuring broader accessibility and usability. Working closely with the PB and GEO Infrastructure Development Task Team (GIDTT), the SIP identifies actions related to GEO infrastructure beyond 2026, which will support the Goals of the Post-2025 Strategy.

# 2. 3 Building on the GEO Strategic Plan 2016-2025: Implementing GEOSS

### 2.3.1 Successes of the GEO Strategic Plan 2016-2025: Implementing GEOSS

The implementation of the previous **GEO Strategic Plan 2016-2025 Implementing GEOSS**<sup>8</sup> achieved several notable successes, including the establishment of implementation mechanisms (the GWP and its components) and the many EO activities within it. In addition, the implementation period saw the development of GEO Infrastructure and the creation of new guidance documents, such as the data sharing and data management principles, and progress in reporting and governance arrangements.

It is recognised that GEO's mission (from the GEO Strategic Plan 2016-2025 Implementing GEOSS) "to connect the demand for sound and timely environmental information with the supply of data and information about the Earth" will not be accomplished within the 10-year implementation period. Rather it is a longer-term mission that must be achieved by sustained and concerted activity. As the policy and technology landscapes evolve over time, so too should GEO's activities to keep pace with new developments.

<sup>&</sup>lt;sup>7</sup> GIDTT GEO Infrastructure Architecture and Finalization of requirements

<sup>&</sup>lt;sup>8</sup> GEO Strategic Plan 2016-2025 Implementing GEOSS

By implementing the GEO Infrastructure/GEO Knowledge Hub, GEO has significantly advanced data sharing, open knowledge, education, etc. related to EO. GEO, through the GIDTT has been successful in coordinating this activity and has built a trusted role within the EO community.

#### 2.3.2 Areas of ongoing activity

GEO is on a journey and some of the aims and objectives from the GEO Strategic Plan 2016-2025 also appear in this SIP, indicating further progress needs to be made in some areas, and efforts redoubled to advance further. These include addressing the lack of access to data in some countries, fostering partnerships and mobilizing resources to ensure the sustainability of GEO's products and services.

The GEO Infrastructure needs to be further enhanced to support the future development of GWP: not only providing data access capabilities but enabling operation environment for those mature GWP projects. The enhancement of the GEO Infrastructure is discussed further in Section 3.1.

There is also a need to ensure sustainability of GEO's funding, and there was a specific action within the GEO Strategic Plan 2016-2025 Implementing GEOSS to "investigate the funding models used by other international or intergovernmental organizations and or entities, explore an increase in GEO's operating budget reserve, and explore inviting contributions from non-government entities". There is still value in exploring more flexible legal or organizational mechanisms, and the SIP includes specific actions which will review potential options and make recommendations.

## 3 SIP Implementation Actions

The SIP is structured around the Post-2025 Strategy Goals and provides a set of proposed actions needed to deliver them. All five goals are mutually reinforcing: a robust GWP that co-produces user-driven, impactful, authoritative EO and EI tools and services (Goal 1), an all-encompassing supportive environment that actively seeks different perspectives to ensure gaps in technical capacity are closed (Goal 2), innovation and the latest technologies are incorporated into solution design and to help fill gaps in current capacity (Goal 3), insight and inspiration are drawn from Youth (Goal 4) and other underrepresented communities to increase participation in GEO, and where communications, advocacy and resource mobilization activities (Goal 5) increase engagement by Members and other partners and support the GWP activities through promotion of the value and impact of EI and fundraising.

A summary of the activities is provided in this section.

Detailed descriptions of the suggested pathways are provided in the tables in <u>Annex A</u> – Preliminary Implementation Actions, alongside other documents like the stakeholder feedback received<sup>9</sup>.

These are **preliminary suggested actions** which will be further updated, refined, and prioritized as part of GEO's annual operational planning cycle and through different implementation scenarios and procedures. Each suggested SIP action has specific responsibilities, timelines, budgets and Key Performance Indicators (KPIs). **Implementation of all actions will be dependent on funding availability.** 

The Executive Committee will lead the development of GEO Secretariat's annual operational plans, supported by the GEO Secretariat and input from the GEO Community. We encourage all of GEO to

Draft Post-2025 Strategy Implementation Plan 2026 – 2030

<sup>&</sup>lt;sup>9</sup> Stakeholder Feedback Questionnaire Summary

actively engage with and contribute to the further development of these suggested actions during implementation by submitting suggestions to a dedicated inbox – <a href="mailto:sip@geosec.org">sip@geosec.org</a>.

# 3.1 Goal 1: Co-produce transformative programmes to deliver trusted Earth Intelligence

#### 3.1.1 Objectives overview

With this goal, GEO aims to deliver a portfolio of programmes that provide the trusted EI needed to drive transformative change in societies' interaction with the planet. Co-produced across disciplines, these programmes will equip decision-makers with tools for integrated environmental and societal policies, fostering social innovation and sustainable economic growth. Expanding and promoting the GEO Infrastructure and data and services delivered via APIs, will establish a trusted 'go-to' platform for EI data, products, services and knowledge, connecting suppliers and end users and where the inputs and processes are clearly documented to build that trust. This is especially needed within modelling / AI where the details of the model itself remain largely hidden or is too technically complex for some users.

Feedback from stakeholders encouraged collaboration across disciplines and sectors within the GWP activities and the need for specific regional collaboration and customization. There was an emphasis on user-driven and user-centric design and building in feedback mechanisms to ensure continuous improvement and ongoing relevance of activities, including close linkages with national, regional and global policy. Several stakeholders identified the need for fewer projects within the GWP and for projects to be less disparate and more focused on common priorities and on promoting open data and standards in the delivery of products and services.

The Post 2025 Strategy emphasizes the need for efficiency, effectiveness, impact, and additionality in GEO's programmes, requiring a growth mindset from the community to integrate new technologies, increase global access to EI, and engagement with marginalised groups within the GWP to enhance youth and Indigenous community participation.

#### 3.1.2 Key objectives, actions and timelines

#### Objective 1: Develop and Implement the Post-2025 GEO Work Programme (GWP)

- Carry out the proposed GWP, including the R2O activities with emphasis on co-delivery of actionable information, user engagement and impact;
- Apply specific and quantifiable criteria for the R2O pipeline activities including Accelerators, and separate criteria for Conveners and Enabling Mechanisms in the Post-2025 GWP development process ('ever-green GWP cycle');
- Establish and implement the GWP Monitoring and Evaluation (M&E) framework.

#### Objective 2: Resource the GEO Work Programme for success<sup>10</sup>

 Mobilize national, regional and organizational resources dedicated to the implementation of GWP activities;<sup>11</sup>

<sup>&</sup>lt;sup>10</sup> Funds required for the GWP will be confirmed when the final list of approved activities is available.

<sup>&</sup>lt;sup>11</sup> Note: The list of GWP activities will not be available until March 2025. A link will be provided from this document to the final list.

- Earmark proportions of funds pledged to the GEO Trust Fund for specific activities (e.g. innovation);
- Create an Operating Model that enables sustainable resourcing of the GWP.

#### Objective 3: Build capacities across the GWP to deliver EI solutions and impact

- Via GEO Knowledge Hub, create a community-led information platform for GWP activities to share best practices, coordinate actions and identify opportunities for collaboration across thematic areas efficiently and effectively;
- Identify thematically oriented Conveners to act as focal points to foster collaboration across focus areas:
- Support the GWP in conducting socio-economic impact assessment, including all R2O Pipeline activities, provide basic training in impact assessment;
- Incorporate social science and other non EO inputs into EI solutions and GWP activities through co-design process;
- Increase the desired decision-making impacts delivered by the GWP based on GWP criteria;
- Establish GEO-branded capacity building programmes led by GEO initiatives across the focus areas to strengthen local capacity in using EI data and tools.

# Objective 4: Enhance the GEO Infrastructure to support the GWP in disseminating outcomes and knowledge.

 Develop and implement the GEO Infrastructure based on GIDTT's assessment of technical feasibility and requirements<sup>12</sup> (institutional and financial resources, and governance model), relative to the GWP as well as the potential for enhanced use and exploitation of existing national and international infrastructures.

### 3.2 Goal 2: Increase global equity through accessible Earth Intelligence

#### 3.2.1 Objectives overview

With this goal, GEO aims to foster fair and open access to EO data and knowledge, recognizing that not all countries have the same capacity to provide and use EI. GEO seeks to achieve increased global equity, through targeted and comprehensive global efforts on open EO data, championing open science practices, and ensuring availability of code, documentation, and quality control information. The emphasis is on improving accessibility and affordability of EO data and knowledge by facilitating the negotiation of reduced costs or data/service credits, multi-user licenses, upholding GEO data sharing principles, and strengthening EO literacy as well as regional and local capacities.

Stakeholder feedback highlighted technical challenges in access to data and EO capabilities, and the need to level the playing field in governance and representation.

To effectively govern these efforts, GEO will work to enhance transparency and accountability in its governance structures. By integrating open data principles into GEO's governance framework, the

<sup>&</sup>lt;sup>12</sup> This and additional activities are being refined and developed based on the work of the GIDTT over the coming months (see <u>GIDTT GEO Infrastructure Architecture and Finalization of requirements</u>) including ensuring service resilience and promotion and implementation of the GEO Data Management Principles

organization seeks to build a more equitable and efficient global EO ecosystem, empowering Members to leverage EO data for decision making, innovation, and sustainability.

#### 3.2.2 Key objectives, actions and timelines

#### **Technical capacity**

To address gaps in technical capacity and data availability partnerships will be essential, requiring active engagement with GEO Members and stakeholders across the EI value chain to increase global access. The proposed actions align with the work of the GIDTT on user needs and infrastructure, ensuring that investments in EO infrastructure (across space, ocean, and in situ observations) are driven by user requirements.

# Objective 1: Develop and implement National Earth Intelligence Readiness Assessments in selected GEO Members

• Co-organize in-country scoping workshops, develop and implement National Earth Intelligence Readiness Assessments (NEIRAs)<sup>13</sup> to baseline current capacity, identify gaps and then to enhance EI literacy and capabilities, based on the interest of GEO Member countries. Undertake NEIRA in-country finalisation and validation workshops for national stakeholders.

#### Objective 2: Mainstream EO and EI into national policy

Organize or collaborate on annual workshops for GEO Members, focusing on developing EO roadmaps and integrating EO elements into national policy frameworks and leveraging ongoing initiatives, such as the United Nations Office for Disaster Risk Reduction (UNDRR) National Workshops for Early Warnings for All (EW4All), to ensure alignment with global best practices and maximize impact.

#### Objective 3: Facilitate the uptake and adoption of GEO solutions

• Undertake hands-on workshops and webinars annually on GWP initiatives and GEO Knowledge Hub for GEO Members.

#### Objective 4: Facilitate technical cooperation between GEO members

• Set up bilateral technical capacity peer-to-peer exchanges between GEO Members with advanced National GEOs and emerging National GEOs on access and use of EO and EI.

#### **GEO** governance and representation

Within a Member-led governance framework, GEO will explore avenues to ensure adequate representation. This includes addressing currently underrepresented regional caucuses and specific groups of countries such as Small Island Developing States (SIDS), youth, Indigenous Peoples, and GEO Associates. This will involve further consultations with Members, and a structured process for considering governance enhancements, ensuring all perspectives are considered. Grounded in transparency and consensus-building, the SIP provides a framework to guide discussions, gather input, and identify areas for improvement.

#### Objective 5: Design and implement a Member Engagement Strategy

<sup>&</sup>lt;sup>13</sup> See the proposal for <u>Scaling up National Earth Intelligence Readiness Assessments</u>.

- Develop an annual engagement plan tailored to specific events and individual countries to attract new Members, re-engage dormant Members, strengthen partially engaged Members and sustain highly engaged Members;
- Develop a comprehensive onboarding process with updated guidelines, personalized sessions, and a tailored welcome package for new Members of GEO and its governing bodies. Leverage Regional GEOs and champions to recruit members, ensure clear value propositions, and implement continuous feedback mechanisms;
- Set up joint Regional GEOs regular coordination for to align strategic priorities, engage in scoping the role of Regional GEOs as an input to the Post-2025 GEO governance, share best practices, organize joint activities, to foster synergy in implementing the GEO Post-2025 Strategy (e.g. through joint calls session organized at the GEO Global Forum);
- Leverage annual Regional GEO events (Regional GEO Symposia, Regional GEO Weeks) to mobilise regional and national networks of experts and support participation of Member countries in the global GEO governance;
- Strengthen GEO Member Services support for tailored Member assistance, financial
  contribution tracking, and engagement insights. Maintain country profiles and contact
  databases. Map and analyse donor landscape to strengthen financial contributions to GEO.
  Enhance knowledge sharing and document best practices for National GEOs, conduct annual
  member surveys to assess evolving needs and identify actionable suggestions;
- Organize diplomatic briefings annually with Permanent Missions to raise awareness of GEO topics among the international community;
- Co-organize GEO participation in major international fora to engage governments for policy influence and visibility, including co-hosting GEO pavilions and side events;
- Coordinate and formulate strategic messaging about GEO and EI for integration into country submissions, statements, conference documents, joint declarations, and agreements at highprofile multilateral fora and international conferences.

#### Objective 6: Enhance participation of Indigenous Peoples in GEO and their access and use of EI

- Consult and establish partnerships with UN-based fora, Indigenous Peoples and Organizations
  that focus on relevant issues to explore synergies with GEO Indigenous Alliance and GEO
  activities;
- Co-develop culturally relevant workshops annually with Indigenous groups to document and gather insights, conduct community consultation on local priorities and good practices on EO for community-driven projects;
- Implement Indigenous-led projects that utilize EO to address local environmental priorities and challenges;
- Co-develop approaches with Indigenous peoples to weave Indigenous Knowledge with EObased approaches for GEO's activities.

# Objective 7: Enhance participation of Small Island Developing States (SIDS) in GEO and their access and use of El

- Consult and establish partnerships with UN-based SIDS alliances, countries, and regional organizations:
- Develop partnerships with data providers and leverage existing efforts to help set up multi-users licensing agreements where needed to provide SIDS with access to high resolution data and data processing tools;

- Initiate pilot projects in selected SIDS to demonstrate the practical application of EI in local decision-making and policy development;
- Scale up pilot projects that apply EI to specific sectors such as agriculture, environment, disaster management, or coastal protection in SIDS.

# Objective 8: Involve GEO Members in co-designing, implementation and verification of services and products of GEO and GWP projects

 Develop and implement a co-design approach to foster collaboration between GEO Members and the GEO community on GWP projects and emerging GEO initiatives. Engage Members in project co-design, implementation, and verification while equipping them with skills for global initiatives. Shared platforms, regular communication, and structured feedback will drive efficiency and impact, with key outcomes showcased at global events to inspire partnerships.

# Objective 9: Ensure equitable representation and participation through a fit-for-purpose GEO governance structure

- Clarify the roles and responsibilities of, and relationships between, GEO governing bodies. This
  effort aims to foster productive and effective relationships, emphasizing the complementarity
  of each body's role and their collaboration towards a shared mission. Progress here can
  enhance alignment and strategic clarity, enrich communications, and promote a shared
  understanding of roles in fulfilling GEO's mission;
- Deliver a robust amendment process for the GEO Rules of Procedure and governance that supports improvements, maintains rigor, enhances transparency, and ensures the Rules reflect GEO values;
- Establish a digital method (with analogue option) to receive and catalogue proposed changes to the Rules of Procedures from authorized entities;
- Evaluate the merit of expanding observer seats in GEO's governing bodies. For example, the
  addition of observer seats for Regional GEOs, Associates, as well as for Youth, Indigenous
  Peoples, SIDS or other underrepresented groups or regions within GEO.

# Objective 10: Enhance participation and accessibility by earmarking a proportion of pledges to the GEO Trust Fund for targeted activities that support Member and community engagement (e.g. "Voices for All" fund<sup>14</sup>)

- The fund seeks to offer financial assistance for travel and participation in GEO governance and GWP meetings as well as external events for GEO advocacy and representation (e.g. COPs, other major internal fora). This initiative is new and supplemental to the existing fund for invitational travel support for GEO Principals and representatives from low-income countries, ensuring targeted support to enhance engagement with relevant stakeholders;
- The fund seeks to support live interpretation services for GEO Plenary sessions, and translation of related documents into the six official UN languages;
- Additionally, the fund seeks to support internships and mentorship programmes for eligible candidates through fellowships.

<sup>&</sup>lt;sup>14</sup> The nature and operational modalities of the fund will be finalised as the first step of the implementation of the fund.

# 3.3. Goal 3: Integrate new technologies and innovation into Earth Intelligence services

#### 3.3.1 Objectives Overview

Within this goal, GEO seeks to build on its foundations by providing sustained full and open access to data and services, and by continuously scanning the technology landscape to integrate new technologies, methods, knowledge-based processes and capabilities to respond to new demands.

Stakeholder feedback emphasized the critical role of innovation in advancing EI solutions. It was felt that leveraging new technologies would lead to a more impactful work programme using AI (AI, GEOAI and GenAI) and Machine Learning (ML), Digital Twins, cloud computing and Uncrewed Vehicles (UxVs). The potential to use these technologies in the analysis of long-term time series of imagery, design of real-time monitoring systems, predictive models, and advanced visualization tools supporting real time data-driven decision making was highlighted.

Businesses, including Small, Micro and Medium-sized Enterprises (SMMEs), through their Associate role in GEO, will be able to provide insights on new trends and technologies that will support GEO's goals. Stakeholders suggested the potential to establish grant programmes and challenges to support Indigenous Peoples and various local communities in developing EO-based solutions tailored to their needs.

#### 3.3.2 Key objectives, actions and timelines

#### Objective 1: Fill gaps in data provision by leveraging access to very high-resolution data

Actions related to various very high-resolution (VHR) datasets including satellite imagery, in situ data, uncrewed vehicles that have the potential to fill gaps in data provision which currently occur for technical and administrative reasons.

#### Leverage satellite data to fill existing gaps for specific domains

- Run a feasibility study to fill data gaps in areas with cloud cover etc. (e.g. SIDS) through a pilot project or within the context of an ongoing project where GEO can help replicate the approaches elsewhere, facilitate data access and develop capacity;
- Run a feasibility study to develop approaches for cloud service provision and cloud computing capability including space borne processing;
- Survey GEO Members and GWP on specific needs with respect to usage of VHR and other satellite data (e.g. Copernicus) for specific domain applications;
- Open a call for contribution/agreement with commercial VHR data providers;
- Support existing initiatives (e.g. UNOOSA) to negotiate and establish a generic license for addressing gaps in analysis ready, VHR data that is independently quality assured. Convene the community to amplify this issue and make recommendations for GEO involvement.

#### In situ data

- Improve access to in situ data by negotiating with providers;
- Use the GEO Knowledge Hub to signpost and support access to in situ data;
- Direct hosting of in situ data to secure data which might otherwise be lost.

#### Uncrewed Vehicles (UxVs)

- Establish UxV Convener in the GWP to bring together expertise and users to design new solutions;
- Undertake feasibility study to explore the use of UxV technologies to fill gaps using rapid deployment UxV technologies.

#### Objective 2: Embed Artificial Intelligence into GWP

- Expand and scale the AI4EO Subgroup to organize events, curate training and webinars, promote sharing of data and tools, support development of GWP activities that leverage AI and discuss issues (e.g. AI ethics);
- Establish an Al Convener in the GWP, include potential for GenAl, particularly in solutions to support less technical users in using EO and to promote cross-community collaboration on Al for EO;
- Identify and engage key experts and communities, identify gaps and liaise with other relevant AI groups within and beyond GEO by convening a network and hosting events;
- Support capacity building and knowledge exchange for AI and conduct Training Needs. Assessment of GEO Members to identify priority areas for developing AI capabilities for EO.
- Organize quarterly webinars on AI and hands on training workshops;
- Develop and disseminate cross-cutting AI tools and resources including creating an inventory
  of existing AI Tools and datasets to provide a comprehensive review of published datasets for
  different domains / focus areas;
- Develop dataset and tool documentation and user guides;
- Enhance data-driven decision-making and policy support by collaborating with GEO Members to identify priority datasets for AI integration, publicise this list, and analyze gaps to enhance AI integration and accessibility;
- Develop AI models for policy-relevant insights, collaborate with data scientists to adapt AI models that can transform complex data into actionable insights;
- Integrate Al-driven insights into GEO Infrastructure/GEO Knowledge Hub: Work with GEO's technical teams to ensure seamless integration of Al-driven insights from GWP activities;
- Disseminate decision-making tools to GEO Members via the GEO Knowledge Hub, create user-friendly dashboards and tools that GEO Members can use.

#### **Objective 3: Awareness Raising**

- Promote GEO events and GWP to businesses by communicating GEO's value proposition, user communities, and existing gaps, while highlighting opportunities to showcase innovations, emerging technologies, and connect with potential users;
- Enable businesses to pilot activities through existing mechanisms, such as the EW4All Al Subgroup (targeting events such as Al4Good Summit and Global Platform for DRR / EW4All Multi-stakeholder Forum);
- Promote innovative work on the GEO Knowledge Hub and better flow of communications across channels.

#### **Objective 4: Contribute to the development Digital Twins**

• Through GWP activities contribute to Digital Twins which align with GEO's focus areas, such as extreme weather-induced events and climate adaptation.

# 3.4 Goal 4: Increase participation of young people in the development of Earth Intelligence

#### 3.4.1 Objectives Overview

Goal 4 seeks an increased role for young people in the development of EI by fostering diverse perspectives, expanded opportunities, and multidisciplinary innovation through representation, community-led initiatives and engagement at GEO events. With a new Youth Convener and pursuit of youth governance and event engagements, GEO shall fulfil an organization-wide commitment to foster, gain insight and draw inspiration from a new generation of EO professionals.

#### 3.4.2 Key objectives, actions and timelines

# Objective 1: Facilitate youth representation and participation in GEO governance and GEO Members

This objective creates both formal and participatory opportunities for youth within GEO governance and GEO Member country ministries and agencies, by bringing forth proposals to governing bodies and creating paid internship, mentorship and fellowship opportunities with GEO's partners.

- Create and sustain youth positions<sup>15</sup> within GEO delegations to Regional GEOs, ExCom, PB and Plenary;
- Develop proposals for paid internship and advocate for mentorship or fellowship programmes at national ministries or focal agencies that are part of a National GEO or oversee the GEO remit.

# Objective 2: Provide dedicated financial and technical support to GEO Youth and young EO professionals.

These objective leverages communications, partnership building, and liaison with the GEO Member network to create and amplify funding opportunities, events, and policy participation for young people in and external to GEO.

- Establish a GEO Youth Ambassador network to support youth engagement with governmental, national and academic institutions, including supporting youth delegates to GEO governance bodies and engagement with Member countries and their existing youth ambassador networks;
- Publish and signpost scholarships, vacancies and other opportunities via the GEO Youth Community of Practice platforms, and GEO social media as appropriate for GEO's Communications plan;
- Coordinate efforts between the GEO Secretariat, Member countries, academic partners and the Youth Convener to secure dedicated financial and technical resources for youth events and opportunities. Identify available funding sources and opportunities by working with donors, POs and academia to support the activities of the Youth Convener and scholarship programmes.

 $<sup>^{15}</sup>$  Details will be confirmed following a review of the GEO Rules of Procedure and recommendations from the Rules of Procedure Task Force.

#### Objective 3: Use strategic capacity building to increase youth involvement in the GWP

This objective centres on the GWP development of a youth capacity-building strategy, which will include professional opportunities in organizations connected to the GWP, supporting youth-led research for GWP initiatives, and developing peer-to-peer exchanges.

- The GWP will create a youth capacity development programme to involve youth in GWP initiatives and affiliated Member governments, focusing on policy discussions and engagement with governing bodies;
- Develop proposals for paid internships, mentorships, etc.;
- Support youth-inclusive and youth-led research and data collection throughout the GWP and among regional and national partners;
- Develop and continue peer-to-peer initiatives to convene youth leaders, especially Indigenous leaders, on a periodic basis to support learning and knowledge exchange among youth.

# Objective 4: Create and expand a network of GEO Youth, building strategic relationships with academia and regional and national institutions

This objective foster and perpetuates the GEO Youth Convener by designating Secretariat support, related communications efforts, and outreach to be undertaken by the GEO Youth Convener.

- Establish a Youth Convener in the Post-2025 GWP to reinvigorate the former Youth Community of Practice;
- Create a dedicated focal point in the GEO Secretariat to coordinate with the Youth Convener and existing Youth networks;
- Connect the Youth Convener members with countries and other stakeholders to build relationships and multilateral youth engagement;
- Utilize outlets such as social media and webinars to expand GEO's youth audience and the GEO
  Youth Community of Practice, including advocacy campaigns focused on youth priority issues
  in EO;
- Develop guidelines and templates to raise awareness of EO and EI in academic institutions enabled by the Youth Convener and the Youth Ambassador network.

# 3.5 Goal 5: Invest in integrated communication and advocacy activities to raise awareness and resources for Earth Intelligence

#### 3.5.1 Objectives Overview

Communication and advocacy activities are a crucial element of the SIP, in terms of mobilizing resources for GEO activities and the need to communicate and advocate for GEO is not new. However, Post-2025, potential options and recommendations need to allow for the evolution of these efforts.

Improved communication flow across GEO governance bodies and the GEO community is needed to optimise coherence, efficiency and productivity in executing the SIP.

Consultation feedback reflected existing Post-2025 Strategy and Mid-Term Evaluation (MTE) priorities for enhanced communications and visibility of GEO and its impact. The GEO Community recognised their roles in communications, especially through using their media networks, social media, and websites. Similarly, stakeholders recognised the GEO community can support resource mobilization efforts with endorsement for the proposed activities including working to secure multiyear funding, recommending membership, soliciting joint funding from peer networks and sharing funding opportunities with GEO Secretariat.

The activities set out below are elaborated in detail within the **Communications, Advocacy and Resource Mobilization Plan**<sup>16</sup>.

#### 3.5.2 Key objectives, actions and timelines

#### Objective 1: Elevate Visibility and Understanding of GEO and EI

This objective focuses on enhancing awareness and engagement with GEO's mission by creating impactful content, leveraging media and social platforms, fostering partnerships, and promoting inclusivity to ensure diverse representation in communications.

# Develop a strong, cohesive GEO brand and ensure its consistent application throughout the entire GEO community.

- Develop and solidify a strong brand identity for GEO via the new 'brand book';
- Ensure the brand reflects GEO's core values, vision, and mission;
- Ensure a cohesive and recognizable GEO presence by providing the GEO community with regular training on maximizing the impact of the brand and maintaining consistency in visual and verbal communication.

#### **Impact-focused Content Creation**

- Produce annual deliverables: videos highlighting GEO's impact; in-depth case study using rich
  media content and success stories tied to GEO's Highlights Report. Develop joint op-eds/blogs
  with key global platforms supported by social media campaigns;
- Organize press conferences and distribute media pitches.

<sup>&</sup>lt;sup>16</sup> Communications, Advocacy and Resource Mobilization Plan [and associated costing] (Stage 1 - Overview; Stage 2 - Key Actions, Activities and Timelines; Stage 3 - Periodicity).

#### **Enhanced Media Outreach**

- Establish a media monitoring system and issue statements during major events;
- Provide regional strategic communication training sessions.

#### **Community Engagement**

- Participate in large external events (e.g. COPs, UNGA) on an annual basis to reinforce GEO' role on the global stage;
- Enhance participation in Regional GEO events by featuring GEO initiatives, achievements, and contributions more prominently;
- Create regionalized communication campaigns with tailored content;
- Develop partnerships with academic institutions to disseminate content pieces.

#### **Inclusivity and Representation**

- Produce video series featuring diverse voices (e.g., youth, indigenous communities, private sector);
- Translate key content pieces into other UN languages.

#### **Objective 2: Secure High-Level Political Commitments**

This objective aims to achieve strong political advocacy for GEO by targeting policymakers, expanding an advocacy network, and forming strategic alliances with global and regional organizations to integrate EI into decision-making frameworks.

#### **Targeted Advocacy Campaigns**

- Develop advocacy toolkits or policy briefs annually, ensuring distribution to policymakers or persons with authority and power to champion GEO's vision and mission (e.g. Marco Lambertini at Nature Positive Initiative);
- Organize ministerial-level engagements (e.g. Permanent Mission briefings, engagements at UN
  and other international fora) to position EI as a pivotal tool for achieving international
  development goals and to secure commitments.

#### **Advocacy Network Expansion**

- Invite potential influencers to become GEO Champions and circulate tailored briefing packages;
- Conduct annual engagements with UN agencies and multilateral organizations, fostering at collaborative initiatives;
- Engage with regional organizations to support regional advocacy campaigns.

#### **Objective 3: Secure Substantial Financial and In-Kind Commitments**

This objective is centred on strengthening GEO's financial foundation by diversifying funding sources, developing innovative resource mobilization strategies, and maintaining effective communication with donors to highlight GEO's value and impact. The Communications, Advocacy and Resource Mobilization Plan seeks to establish long-term partnerships with impact investors/funds supporting climate mitigation and adaptation, biodiversity preservation or restoration, and other projects aligned with GEO's mission and values, where a proportion of profits from the investments is committed and diverted to support the GWP or fund the GEO Trust Fund. In addition, comprehensive, multi-faceted global fundraising campaigns will be run such as "8 Billion Hugs for the Planet", encompassing social and traditional media, advocacy, crowd-sourcing and other elements.

#### **Funder Engagement and Diversification**

- Secure new funders through tailored presentations and funder-focused trips;
- Engage with new corporate/industry associations;
- Develop tailored pitches for public and private sectors.

#### **Innovative Resource Mobilization**

- Establish multi-year partnerships with impact investors;
- Earmarking a proportion of pledges to the GEO Trust Fund for specific activities;
- Execute comprehensive fundraising campaign.

#### **Proposal Development and Collaboration**

• Submit proposals in response to competitive funding calls, forming consortia for joint applications, e.g. From member states, philanthropic foundations and private sector.

#### **Donor Communication and Recognition**

- Provide bi-annual updates to funders;
- Develop and distribute "GEO Funder Profiles" report;
- Secure new partnerships, focusing on in-kind contributions.

### 3.6 Enabling Environment

#### 3.6.1 Operating Model

Delivery on the Post-2025 Strategy and the SIP will require a fit-for-purpose GEO operating model to enable successful execution. The operating model comprises all elements of GEO's operations, including its legal status, organizational structure, and key policies and procedures relating to finance, governance, human resources, programme management, resource mobilization and administration.

As the strategy indicates, assessment and refinement of the current operating model will be undertaken to support greater accountability and result orientation, independent representation and voice externally, financial viability and sustainability, inclusivity, transparency and participation relating to all stakeholders, and regional and national growth. Specific success measures for each of these elements will be defined, followed by the commissioning of a study by external advisors to support the research, assessment and recommendation of operating model options.

The SIP provides a blueprint for **what** activities are required to deliver on the Post-2025 Strategy. Post Plenary endorsement of the SIP, a review process will commence to determine the most effective operating model (the **'how'**) for GEO to deliver on its goals. This review will include the following three phases:

- Initial assessment of the model's fit for GEO's Post-2025 needs. This will include a gap analysis
  for key operational modalities designed to highlight areas where evolution/adaptation of the
  model is needed most;
- 2. Exploration, analysis and recommendation of options to evolve and enhance the operating model to better support the achievement of the Post-2025 Strategy;
- 3. Implementation of agreed operational model improvements. GEO's overriding goal will be to drive excellence in its processes, procedures and structures, to ensure these are made fit for purpose to support delivery on the five strategic goals.

Guided by the GEO Plenary, and by the GEO ExCom when Plenary is not in session, the Secretariat will continue to play its role in supporting Members, Participating Organizations and Associates, Regional GEOs, GWP Activities, and the wider GEO community in their EO and EI activities. It will similarly support the GEO ExCom, PB and other key governance bodies in playing their role in contributing to GEO's success.

The management of funds donated by countries and funds from other sources requires the establishment of a fully transparent mechanism for budget utilization and approval. The GEO ExCom shall effectively fulfil its responsibility as stipulated in the Rules of Procedure to 'Examine the annual budget,' ensuring the completion of all stages, including annual budget application, approval, and review of budget utilization.

Aside from the targeted areas highlighted above, the Secretariat will continue to deliver an enabling environment for the implementation of the Post-2025 Strategy through activities including:

- Excellence in governance support to the Plenary, ExCom and other governance bodies;
- Delivery of annual operational plans and budgets, taking the SIP (Annex A) as a starting point and updating specific actions, timelines, budgets and responsibilities based on Plenary and ExCom guidance, as well as funding availability;
- Composition of a Secretariat staff (funding permitting) with the best-in-class skills and competencies required to support delivery on GEO's mission.

Further details of these activities are provided in Annex A.

### 3.7 Monitoring and Evaluation

Based on the agreed actions and KPIs, GEO, guided by the ExCom leadership, will commission an independent M&E service provider to lead the monitoring and evaluation of the SIP and set out the precise approaches. Performance management for the SIP will be based on the agreed implementation actions that are included in GEO annual operating plans. The process will coordinate with M&E activities which have already been designed into the existing Post-2025 GWP and the Communications, Advocacy and Resource Mobilization Plan.

## 4 Risk Management

Table 3 sets out the key risks to the delivery of the SIP and steps to mitigate these risks. **Risk owners** will be identified by Q4 2025.

Table 2 – Initial identification of risks to implementation (L – Low, M – Medium, H – High).

Internal to GEO					
id	Description	Likelihood	Severity	Mitigation	
1	Failure to secure funding despite efforts.	М	Н	Additional resource mobilization efforts (Goal 5 Actions).	
2	Some actions relying on currently unfunded GEO Secretariat posts.	М	н	Demonstrating a strong need and value proposition to help secure funding (Goal 5 Actions).	
3	Lack of consensus for prioritizing actions.	L	н	Governance processes enabling discussion of options and prioritization (Goal 2 Actions).	
4	Low Member engagement despite efforts.	М	М	Demonstrating GEO's value proposition, strengthening the Member Engagement Strategy (Goal 2, 4 and 5 Actions).	
5	Services developed lacking sustainability and resilience during crises.	М	Н	Resource mobilization efforts (Goal 5 Actions) and other measures such as distributed data networks, rapid technical support response (Goal 1 and 3 Actions).	

External to GEO					
id	Description	Likelihood	Severity	Mitigation	
6	Government transitions affecting GEO commitments and engagement.	М	Н	Securing high level political commitments (Goal 5 Actions, specifically objective 2) and other measures to maintain institutional relationship, such as engaging career officials (Goal 2 Actions).	
7	Different national priorities limiting the resources available to implement the plan.	M/H	Н	Demonstrating GEO's value proposition and benefits (Goal 5 Actions).	
8	Global landscape changes (e.g. another pandemic, war) causing disruption.	М	Н	Scenario planning to support rapid pivoting should such an event arise.	

The table above will form the basis of a live Risk Register used during implementation which will be regularly reviewed and updated as part of GEO's annual operating plan and budget. The Risk Register will be maintained by the Secretariat, which will update ExCom periodically, particularly on new/evolving/changing risks to mitigate.

## 5 Next steps

This SIP outlines key preliminary actions to deliver GEO's Post-2025 Strategy vision of 'Earth Intelligence for All'.

The aim of this document is to provide sufficient detail to propose specific actions to achieve the various goals while maintaining flexibility to adapt to the changing landscape, GEO Plenary priorities, and the availability of funding.

Pending GEO Plenary approval in May 2025, implementation preparations will begin immediately, led by the Executive Committee, concluding by December 2025. From January 2026, implementation of the SIP to make GEO's Post-2025 vision a reality will commence (Implementation Period 2026-2030). The implementation will be incorporated into GEO's normal annual planning cycle.

GEO's Annual Operating Plan will determine the distribution of tasks/responsibilities between the GEO Community and GEO Secretariat with room for refinements to enhance execution.

The GEO Community has been energetic and engaged with the consultation activities which have supported the development of this plan and with this high level of enthusiasm and engagement we set off into the Post-2025 Strategy Implementation phase on a very firm footing.