Updating GGOS Strategy and Implementation

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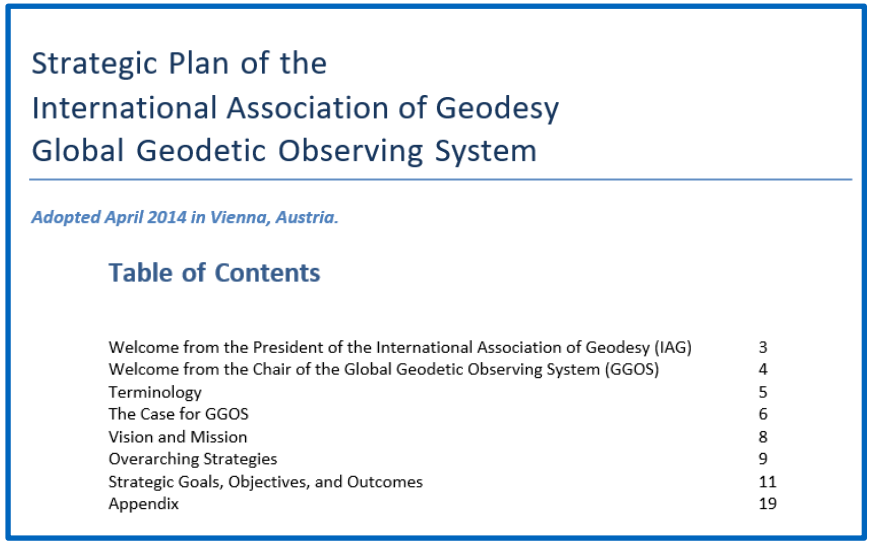
Motivation

- The previous **GGOS Strategic Plan** was released in 2014.
- New geodetic **technologies, observations and products** are available.
- The **IAG Strategy 2019 Document**, which defines the key elements for the IAG Strategy for the next 10 – 15 years, provides concrete recommendations for GGOS.
- A **new governance structure** in geodetic matters outside IAG is merging since 2015 (UN-GGIM Sub-Committee on Geodesy, UN Global Geodetic Centre of Excellence).

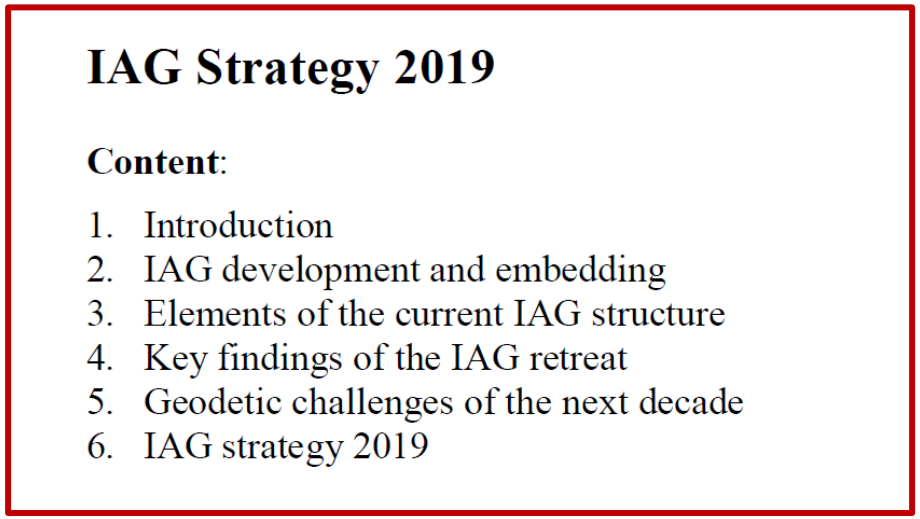


Strategic Plan of the
International Association of Geodesy
Global Geodetic Observing System

Adopted April 2014 in Vienna, Austria.

Table of Contents

Welcome from the President of the International Association of Geodesy (IAG)	3
Welcome from the Chair of the Global Geodetic Observing System (GGOS)	4
Terminology	5
The Case for GGOS	6
Vision and Mission	8
Overarching Strategies	9
Strategic Goals, Objectives, and Outcomes	11
Appendix	19



IAG Strategy 2019

Content:

1. Introduction
2. IAG development and embedding
3. Elements of the current IAG structure
4. Key findings of the IAG retreat
5. Geodetic challenges of the next decade
6. IAG strategy 2019

GGOS Strategic Plan 2024 – 2034

- Community survey in 2022 (about 70 colleagues from 32 countries).
- Completed in November 2023.
- Approved by the GGOS Governing Board on 28 January 2024.
- Published on 1 February 2024.

GGOS Strategic Plan 2024-2034

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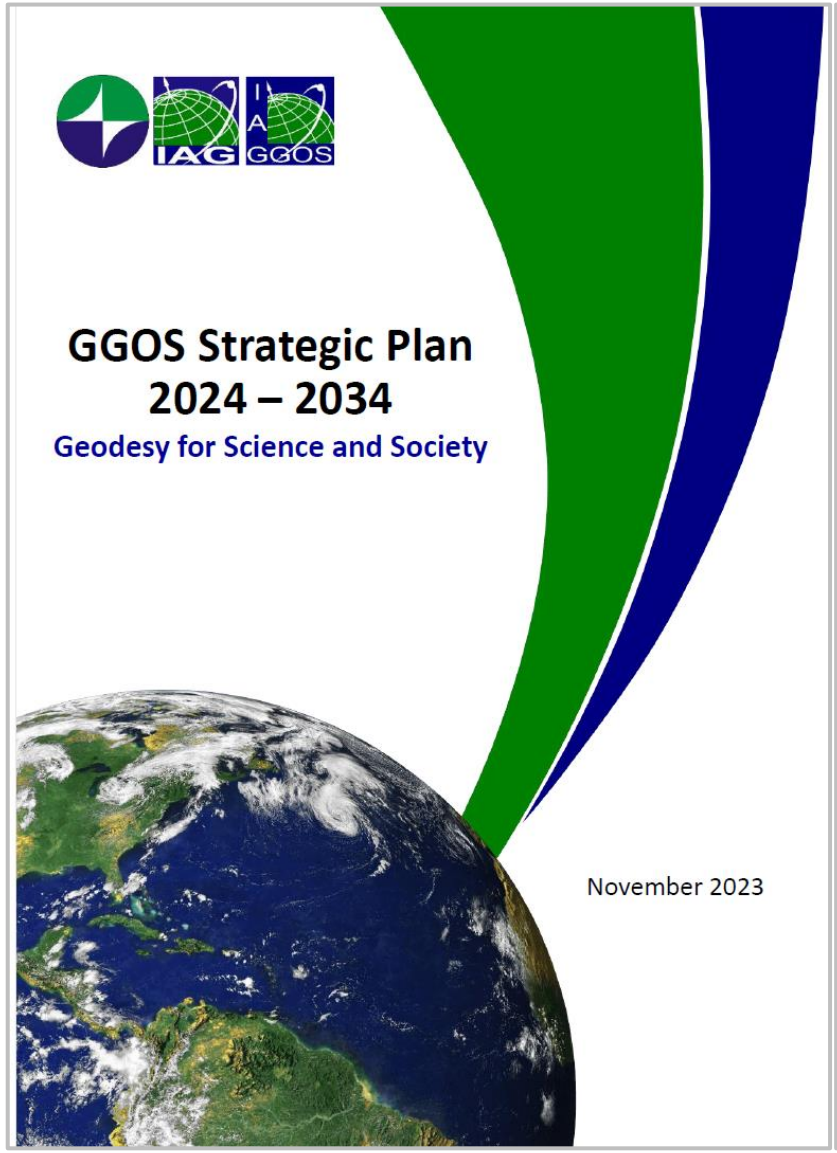
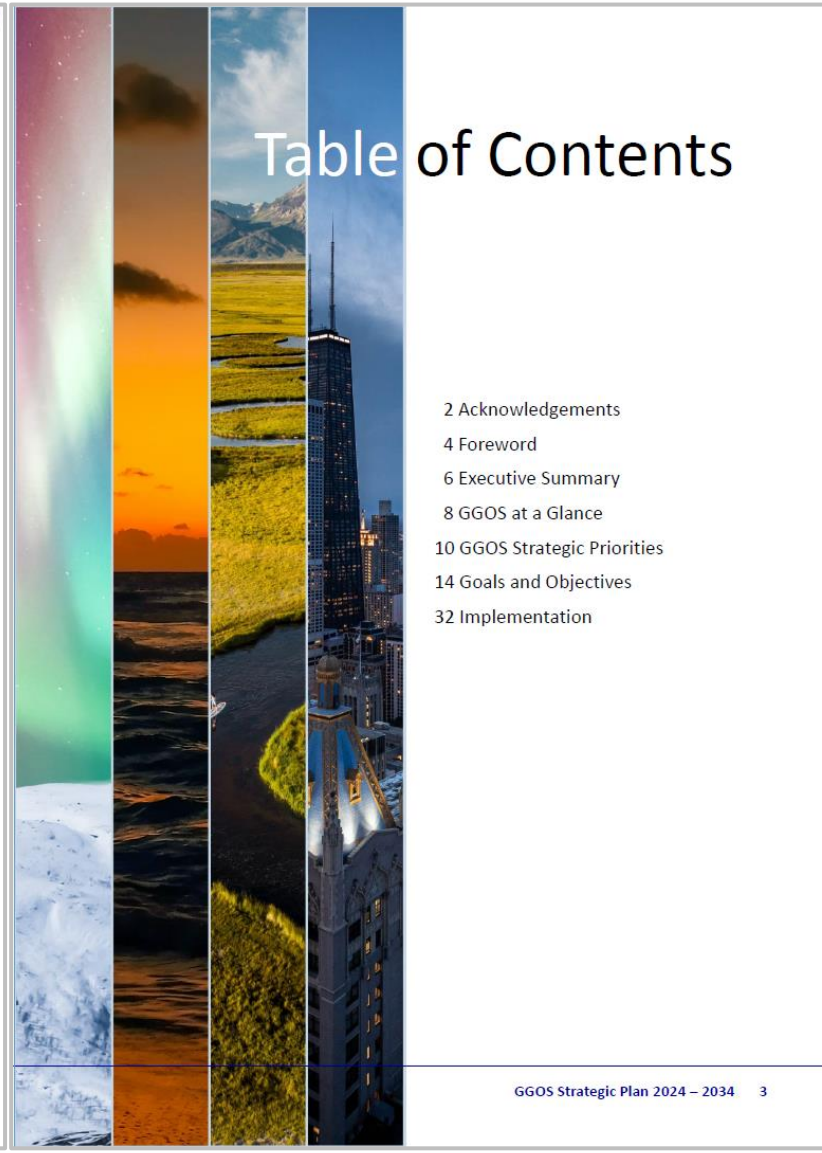
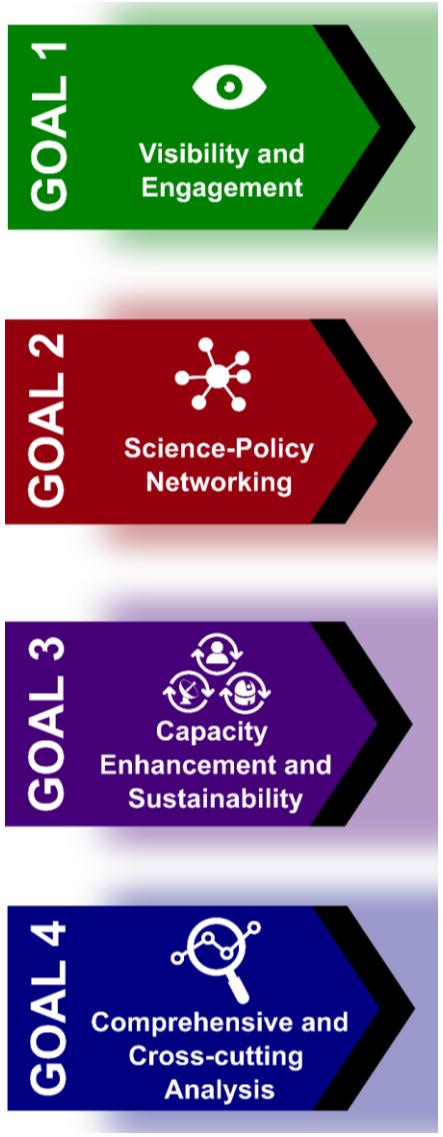




GGOS Strategic Plan 2024 – 2034



- To advocate for geodesy in major global frameworks such as the Global Earth Observation System of Systems (GEOSS), the United Nations Sustainable Development Goals, and the Sendai Framework for Disaster Risk Reduction.
- To contribute to the sustainability of the United Nations Global Geodetic Reference Frame (UN-GGRF) through collaboration with key entities such as the UN Sub-Committee on Geodesy (SCoG) and the UN Global Geodetic Centre of Excellence (UN-GGCE) – scientific advice/evidence for policy development.
- To promote modernisation, extension, and maintenance of geodetic resources, while fostering capacity enhancement and knowledge sharing within the geodetic community, in particular developing countries and early carrier scientists.
- To provide a comprehensive platform for geodetic analysis and information-sharing, making geodetic data and resources accessible to all – GGOS Portal, FAIR and TRUST principles.

GGOS Implementation Plan, phase 2024 – 2027

- To have a better overview of the whole plan, it is proposed to have one action for each objective of the Strategic Plan.
- Each Implementation Action is made up of several activities (from one to four or five). These activities ultimately represent the work to be done.
- For each Implementation Action milestones, output, responsible, timeframe, and performance indicator are defined.

GGOS Implementation Plan, phase 2024 – 2027

- The proposed implementation actions follow the SMART criteria: Specific, Measurable, Achievable, Relevant, Time-bound.
- An assessment of progress will take place each year (preferably at the GGOS Days)
- First draft completed in June 2024.
- Reviewed by the GGOS Executive Committee in July 2024.
- Reviewed by the GGOS Governing Board in August 2024.
- Approved by the GGOS Governing Board and published on 18 September 2024.

GGOS Implementation Plan, Phase 2024 - 2027

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Contents

Executive summary	3
1 Introduction	5
2 Implementation agents and roles	6
3 Resource management	7
4 Risks and mitigation measures	8
5 Action plan	9
6 Communication plan	29
Annex 1 Summary of implementation activities	31
Annex 2 External stakeholders	41

GGOS Implementation Plan, phase 2024 – 2027

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GGOS Implementation Plan, phase 2024 – 2027

GOAL 1

Visibility and Engagement: Raise awareness of the benefits of geodesy to society

Action 1.1 Highlight the contribution of Geodesy to the well-being of society

Milestone

The contribution of geodesy to the well-being of society needs to be effectively communicated and recognised, leading to increased support for ongoing research, cooperation, and applications in the field.

Outputs

- Informative and visually engaging materials, including brochures, infographics, white papers, videos, etc. explaining the role of geodesy in everyday life.
- An awareness campaign through various media channels to inform the society about the importance of geodesy in achieving the United Nations Sustainable Development Goals.
- Highlighting specific case studies where geodesy has played a crucial role in measuring, monitoring, and forecasting geohazards, including protection against natural hazards and risks of extreme space weather events on critical infrastructure for daily life.
- Promotion of the relevance of GNSS technology for navigation, timing, and location-based services.
- Identification of emerging societal needs where geodesy can help.

Activities	Lead [Contributors]	Timeframe	Performance indicators
1.1.a Produce outreach packages describing geodesy's contribution to the UN Sustainable Development Goals (SDGs), the Sendai Framework, the GEO Societal Benefit Areas (SBAs) and other relevant initiatives.	GGOS-P [CO, BPS, BNO, SP, FAs, EC, GB]	2025/2026	· Two outreach packages a year.
1.1.b Demonstrate how the work of the IAG/GGOS is aligned with (or supports) the UN SDGs.	GGOS-P, IAG-P [CO, BPS, BNO, SP, FAs, EC, GB]	2025	· An article published in a popular science magazine.
1.1.c Showcase studies and reports demonstrating how geodesy contributes to monitoring and operating early warning systems for earthquakes, tsunamis, and other natural disasters.	FA-Geohazards	Continuous	· Presentations at international conferences and publications in scientific journals by experts of the FA-Geohazards.

GGOS Implementation Plan, phase 2024 – 2027

GOAL 4 **Comprehensive and cross-cutting analysis: Engage across geodetic techniques for integrated geodetic research and technological developments**

Action 4.4 GGOS portal and web presence

Milestone

The GGOS portal and website serve as a central hub for information about geodesy, the IAG with its various components, and the data and products it provides.

Outputs

- Data-sharing mechanisms for openly accessible and citable geodetic data.
- A unified and accessible platform that facilitates interdisciplinary collaboration, providing a holistic view of geodetic products.
- An updated, comprehensive, and user-friendly website for geodesy, featuring relevant information, resources, and applications.
- Standards and protocols for data sharing, interoperability, and collaboration among geodetic organisations, facilitating the creation of a cohesive and comprehensive geodetic information system.

Activities	Lead [Contributors]	Timeframe	Performance indicators
4.4.d Definition and implementation of the basic functionalities of the GGOS Portal.	CO [BNO, BPS, C-DOI, C-DIS]	2025/2026	· An operational web platform for the GGOS portal. · Available geodetic product metadata integrated in the GGOS portal. · Promotional campaigns to encourage data providers to generate metadata for their products.
4.4.e Promote FAIR, TRUST and CARE practices and communicate their benefits.	CO [All GGOS components]	Continuous	· An outreach package describing the FAIR, TRUST and CARE practices and the benefits of their use in geodetic data and products.
4.4.f Promote the benefits for using digital object identifiers and related guidelines	CO [C-DOI, all GGOS components]	2025/2026/2027	· A section on the GGOS Website with information on DOIs (general information, benefit, examples, how-to, link to C-DOI). · Addition of relevant information about DOIs in the GGOS Portal. · Further development of the metadata recommendations for geodetic data to support all IAG Services (ongoing). · Overview on DOI activities for each IAG Service.

GGOS Implementation Plan, phase 2024 – 2027

Implementation activities related to geodetic information and expertise

- GGOS Requirements and Essential Geodetic Variables (EGVs) - 6 activities
- Focus Areas and Interdisciplinary Research - 8 activities
- Science-Policy Networking - 8 activities

Implementation activities related to Global Geodetic Infrastructure

- Simulations and documentation for fundamental stations - 7 activities
- Regional affiliates, GGOS Africa - 1 activity
- More satellites for reference frames - 2 activities

Implementation activities related to Standardisation, Integration and Optimisation

- Missing and new products - 2 activities
- Standards and metadata - 3 activities
- Updated geophysical models - 1 activity

Implementation activities related to Communication, Education and Outreach

- GGOS Portal and Internet Presence - 7 activities
- Networking with scholars, young people, early carrier scientists, and colleagues from developing countries - 10 activities
- Outreach and communication materials - 9 activities