

GGOS
Coordinating Office
2015-2016 Implementation Plan

1.0 IMPLEMENTATION OVERVIEW

1.1 Introduction

As defined in the GGOS Terms of Reference (approved in July 2011), *“The GGOS Coordinating Office (CO) performs the day-to-day activities in support of GGOS, the Executive Committee, the Coordinating Board and the Science Panel, and ensures coordination of the activities of the various components. The CO ensures information flow, maintains documentation of the GGOS activities and manages specific assistance functions that enhance the coordination across all areas of GGOS, including inter-services coordination and support for workshops. The CO in its long-term coordination role ensures that the GGOS components contribute to GGOS in a consistent and continuous manner and adhere to GGOS standards. The CO also maintains, manages and coordinates the GGOS Web presence.”*

The director of the Coordinating Office is an ex-officio voting member of the Coordinating Board.

1.2 Goals and Objectives

The GGOS Coordinating Office *ensures optimal coordination of the activities of the various GGOS components*. As such, the coordinating office endeavors to support all GGOS entities to achieve all of their respective goals and supporting objectives in order to make their prescribed outcomes a reality. Nevertheless, as shown in Table 1.2-1, the Coordinating Office will directly handle a set of primary and secondary objectives (see Table 1.2-1 caption for the distinction) in its own right.

Primary Goals — The Coordinating Board looks to Goal 4 (Communications, Education and Outreach) and associated objectives 4.1 (Establish a strong internet/online presence) and 4.2 (Outreach to the technical community and general society) for primary direction in its efforts.

The Coordinating Office will undertake achieving the desired outcomes associated with those primary objectives, namely (as stated in the Strategic Plan):

Outcome 4-1: The GGOS web presence is a consolidated and extensive resource – it is the primary point of engagement for the technical community, and a valuable tool for outreach to society. The GGOS website and portal are amalgamated into a single website and streamlined for both technical and general audiences. The website provides

online databases of GGOS resources, including: technical resources, reports issued by (and related to) GGOS, general efforts advancing the organization, student opportunities and other educational resources.

Outcome 4-2A: GGOS engages the expert population within GGOS membership; engages in outreach to related and potentially complementary groups; supports geodetic satellite missions; advocates for new stations; and engages the general technical community through sessions at workshops and conferences.

Outcome 4-2B: A component of the GGOS website is created for outreach to education and general interest audiences; educational materials are published for distribution to students of various age as well as the general public.

Secondary Goals — The Coordinating Office sets as its secondary objectives the rest of the GGOS objectives consistently with its charter to coordinate all activities of GGOS.

Table 1.2-1: GGOS Coordinating Office Goals and Objectives Mapping. The table identifies the primary (✓✓) and secondary (✓) Goals and Objectives that the GGOS Coordinating Office will be supporting to meet the outcomes stated in the GGOS strategic plan. Primary goals and objectives are those that are aligned with the charter of the GGOS Entity in question and are not likely to be realized without its involvement. Secondary goals and objectives are those that the given GGOS Entity can support as part of its charter.

	Goal 1 – Geodetic Information and Expertise			Goal 2 – Global Geodetic Infrastructure		Goal 3 - Services, Standardization, and Support		Goal 4 - Communication, Education, and Outreach	
	<i>Objective 1-1 – Understand societal and scientific needs and deficiencies</i>	<i>Objective 1-2 – Position GGOS as the primary source for geodetic information and expertise</i>	<i>Objective 1-3 – Connect with the larger scientific community and integrate with other Earth observing</i>	<i>Objective 2-1 – Support and advocacy for infrastructure and associated elements</i>	<i>Objective 2-2 – Lead efforts for the integration of various ground observation networks within the GGOS network</i>	<i>Objective 3-1 – Standardization</i>	<i>Objective 3-2 – Coordination and Development of IAG Services</i>	<i>Objective 4-1 – Establish a Strong Internet/Online Presence</i>	<i>Objective 4-2 – Outreach to the Technical Community and General Society</i>
Coordinating Board	✓✓	✓✓	✓	✓	✓	✓	✓	✓	✓
Consortium	✓	✓	✓✓	✓	✓	✓	✓✓		✓
Coordinating Office	✓	✓	✓	✓	✓	✓	✓	✓✓	✓✓
Bureau of N&O			✓	✓✓	✓✓	✓	✓		
Bureau of P&S	✓	✓	✓	✓		✓✓	✓✓		
Science Panel	✓✓	✓	✓✓				✓		✓

1.3 Coordinating Office Authority, Governance Structure, Management Structure, and Implementation Approach

1.3.1 Coordinating Office Authority

The Coordinating Office acts at the pleasure of the Coordinating Board, which delegates authority to the Coordinating Office to run the day-to-day activities associated with the coordination of the implementation of the different plans set forth by the GGOS bureaus and Science Panel. In this capacity, the Coordinating Office works closely with the directors of the bureaus and science panel to manage activities and ensure that plans are accomplished in a timely and efficient manner.

1.3.2 Governance Structure

The fundamental governing structure of GGOS, including its Coordinating Office, is dictated by the GGOS Terms of Reference (GGOS 2011). The Terms of Reference establish the position of a Head [Director] of the Coordinating Office, who is a voting ex-officio member of the Coordinating Board.

After the adoption of the strategic plan, the Coordinating Board oversees the generation of a yearly implementation plan to achieve the objectives set forth in the strategic plan. This implementation plan is made up of individual implementation plans associated with the GGOS entities. The Coordinating Board delegates responsibility for the generation of those plans—except the one belonging to the Coordinating Board—to the different entities.

The Coordination Board approves the implementation plans *and delegates responsibility for the day-to-day monitoring and coordination of all plan activities to the director of the Coordinating Office.*

1.3.3 Management Structure

The resources (positions) of the GGOS Coordinating Office and the entities providing those resources presently are summarized in Table 1.3-1.

Day-to-day activities of GGOS are overseen and coordinated by the director of the GGOS Coordinating Office, who then reports progress against execution plans and associated schedules to the Coordinating Board on a periodic basis. The Coordinating Board then

ensures that these activities continue to be aligned with the objectives of the strategic plan, and redirects the Coordinating Office as needed.

A summary of all communications to manage all activities associated with the Coordinating Office is shown in Table 1.3-2. This table includes all information-gathering meetings and reporting meetings.

All artifacts generated by GGOS, including strategic and implementation plans, as well as meeting minutes and presentations, are curated by the Coordinating Office and made accessible online via the GGOS Website/Portal.

Table 1.3-1: Coordinating Office Resources.

Position	Resource	Entity Contributing
CO Director (pro tempore)	X.Y (1 FTE)	BKG (Germany) NASA (USA)
CO Management & Engineering Support (pro tempore)	X. Y (< 0.1 FTE)	BKG (Germany) NASA (USA)
CO Outreach Support	X. Y (<0.1 FTE)	Kartverket (Norway)
CO Web Master/Librarian (pro tempore)	X.Y (< 0.1 FTE)	BKG (Germany)
CO Administrative & Outreach Support (pro tempore)	X.Y (< 0.1 FTE)	BKG (Germany) NASA (USA)

Table 1.3-2: Coordinating Office Communications Plan. The table identifies the communications requirements of the Coordinating Board

Communication Type	Purpose	Medium	Frequency	Audience	Owner	Deliverables
CB Chair-CO Director Meeting	CO Director discusses day-to-day activities and issues with CB Chair	Teleconference	Every two weeks	CB Chair CO Director	CB Chair	Before: Mutually agreed upon agenda (over e-mail) After: Notes and items to present at CB EC Meeting
Coordinating Office Director – Director of the Bureaus and Science Panel	Manage day-to-day execution of the Bureaus and Science Panel implementation plans.	Videoconference	Monthly	CO Director BNO Director BP&S Director Chair Science Panel	CO Director	Before: Mutually agreed upon agenda (over e-mail) After: Progress Reports to present at CB EC Meeting
Coordinating Board Executive Committee (includes Director of the Coordinating	CB Chair provides status of relevant policy issues and	Videoconference	Monthly	CB EC Past Chair	CB Chair	Before: Minutes of the previous meeting for approval and agenda of the current meeting.

Office) Monthly Meeting	<p>strategic matters</p> <p>CO Director provides status of implementation.</p> <p>CB addresses any issues brought up</p>			<p>CO Director</p> <p>Science Panel Chair</p> <p>IAG President</p>		<p>After: Minutes of the current meeting.</p>
Coordinating Board (includes Director of the Coordinating Office) Semiannual Meeting		Face-to-Face (and over videoconference)	Semiannual	CB	CB Chair	<p>Before: Minutes of the previous meeting for approval and agenda of the current meeting. GGOS entities reports.</p> <p>After: Minutes of the current meeting.</p>
GGOS Consortium Meeting		Face-to-Face (and over videoconference)	Annual	<p>CB</p> <p>Consortium</p> <p>Past Chair</p>	CB Chair	<p>Before: Minutes of the previous meeting for approval and agenda of the current meeting. GGOS entities reports.</p> <p>After: Minutes of the current meeting.</p>

1.3.4 Implementation Approach

The GGOS Coordinating Office relies on the partner institutions that provide the personnel who comprise the coordinating board (See Table 1.3-1: Coordinating Office Resources) for the execution of its functions.

The GGOS Coordinating Office also relies on the other GGOS entities, including: the GGOS Coordinating Board that provides overall direction to the Coordinating Office; the bureaus, their working groups, and the Science Panel for the execution of implementation plans.

The GGOS Coordinating Office will work very closely with the GGOS Coordinating Board and steering committees, such as the Science Panel and Consortium, to oversee the fulfillment of GGOS goals and objectives as set forth in its strategic plan.

1.4 Stakeholder Definition

Table 1.4-1 summarizes the advocacy strategy for the identified internal and external stakeholders of GGOS.

Table 1.4-1: Coordinating Board Stakeholders and Advocacy Strategies

STAKEHOLDERS	ADVOCACY STRATEGIES
INTERNAL STAKEHOLDERS	
GGOS Coordinating Board	<p>The GGOS Coordinating Board is the primary oversight entity, as well as beneficiary, of Coordinating Office efforts. The two entities support and sustain one another, for the overall benefit of GGOS and the IAG.</p> <p><i>Advocacy strategies include frequent (fortnightly and monthly) teleconference meetings to discuss progress and issues, as well as face face-to-face meetings at major conferences and/or workshops (approximately two to three times per year).</i></p>
GGOS Bureaus	<p>GGOS Bureau directors work closely with the Coordinating Office to update relevant GGOS elements on bureau activities and ensure that tasks are accomplished in an efficient and timely manner.</p> <p><i>Advocacy strategies include frequent (monthly) meetings to discuss progress and issues.</i></p>
GGOS Science Panel	<p>The director of the GGOS Science Panel works closely with the Coordinating Office to provide progress updates, manage</p>

	<p>assigned activities, and ensure that plans relevant to the panel are accomplished in a timely and efficient manner.</p> <p><i>Advocacy strategies include frequent (monthly) meetings to discuss progress and issues.</i></p>
EXTERNAL STAKEHOLDERS	
CEOS	<p>As an associate member organization of CEOS, GGOS participates in the Plenary, Strategic Implementation Team, and relevant working groups. CEOS depends on its associated agencies to ensure that key activities have sufficient human resources and seamless leadership at all levels.</p> <p><i>GGOS supports the CEOS mission of “ensur[ing] international coordination of civil space-based Earth observation programs, and promot[ing] exchange of data to optimize social benefit and inform decision making for securing a prosperous and sustainable future for humankind” with a critical connection between CEOS and various space agencies, ensuring optimal cooperation between the two stakeholders for the purposes of geodetic observation.</i></p> <p><i>Advocacy strategies include web presence and social media coordination and promotion of each other’s activities.</i></p>
GEO	<p>GGOS supports the GEO vision of realizing “a future wherein decisions and actions, for the benefit of humankind, are informed by coordinated, comprehensive and sustained Earth observations and information” by providing observations relevant for several of the Societal Benefit Areas addressed by GEO, including disasters, water, climate, and weather. GGOS, through the activities of its Coordinating Board, also acts as the interface between the geodetic services and GEO.</p> <p><i>Advocacy strategies include web presence and social media coordination and promotion of each other’s activities.</i></p>
Space Agencies	<p>As the primary source of all global geodetic information and expertise, GGOS provides a critical service to space agencies all over the world.</p> <p><i>Advocacy strategies will include coordination and promotion of each other’s activities through GGOS Coordinating Office members employed by (or working with) space agencies, as well as joint web and social media presence.</i></p>
United Nations	<p>The United Nations initiative on Global Geospatial Information Management (UN-GGIM) has appointed a working group on the Global Geodetic Reference Frame – GGRF.</p>

	<p>IAG has a representative in the UN-GGIM and it is important that the representative follows the work closely.</p> <p><i>Advocacy strategies will include regular (semi-annual) participation of CO members in UN-GGIM meetings, as well as joint web-based promotion of each other's activities.</i></p>
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2.0 Coordinating Board BASELINES

The foundation of the GGOS Coordinating Office is to serve as a central point of coordination for GGOS efforts, and thus streamline the efforts of bureaus, working groups, the science panel, themes, and other entities in the most efficient and mutually beneficial way possible. It also ensures that coordination outside of GGOS, including work in concert with IAG Services, occurs in the best and most agreeable way possible.

2.1 Requirements Baseline

The requirements addressed in this baseline are those requirements of a technical nature that will require a technical verification and validation. They represent “*the high level activities that GGOS together with the IAG must ensure*” (GGOS 2020, p. 224). Other activities pursued in support of meeting objectives and their overarching goals are presented as part of Section 2.2 (Schedule Baseline). Table 2.1-1 shows only those requirements that whose oversight has been allocated to the Coordinating Office—the totality of functional and operational requirements can be found in the Coordinating Board implementation plan. It also shows the allocation of those requirements to an IAG service or other entity. (These requirements may be rewritten at a later stage to ensure they meet requirement definition standards.)

Table 2.1-1: Coordinating Board Requirement Allocation

REQUIREMENT REFERENCE	REQUIREMENT AND INTERPRETATION	GGOS ALLOCATION	IAG SERVICE (OR OTHER ENTITY) ALLOCATION
Operational Specifications for GGOS			
GGOS-Ops-7	Maintain databases of observations and products.	GGOS CO	

2.2 Schedule Baseline

The scheduled activities of the Coordinating Office are shown in Figure 2.2-1. The activities are divided in two main categories: Coordination of GGOS activities and information-technology activities, which include developing a strong web/online presence for external and internal use.

Coordination of GGOS Activities

The GGOS Coordinating Office main activity is the coordination of all GGOS efforts as outlined in this plan and the implementation plans of the GGO components. This coordination activity takes place during formal meetings (see Table 1.3-2: Coordinating Office Communications Plan) and informal communications via phone, email or in person.

Information-technology Activities

The planned activities in the area of information technology are grouped as follows:

GGOS Webpage and Portal

1. Port the exiting GGOS website domain, ggos.org, and content to a new server where it will be integrated with the GGOS portal;
2. Summarization of all GGOS web content, both website and portal, and reorganization into master site map for web development purposes.
3. Solicit specialized web content from GGOS components.
4. Internal review and comment period for revised and new web content by: CB, then Consortium, then selected external stakeholders.
5. Redesign and implement a new GGOS web/portal to meet the needs of internal and external users. These efforts include addressing requirement GGOS-Ops-7 regarding the maintenance and access to databases of information and products (See Section 2.1 Requirements Baseline). It also includes the online digital library of internal GGOS documents, and establishing the GGOS web presence in a secure cloud hosting system. Design shall be complimentary in nature to other successful organization websites, including CEOS (www.ceos.org) and AuScope (www.auscope.org.au).
6. Establish and manage a social media capability to meet our plans for engagement with internal and external stakeholders (See Section 1.4). This includes maintenance of Facebook, Twitter, and other social media platforms.

GGOS Outreach

1. Collect all existing GGOS outreach materials in a central database.

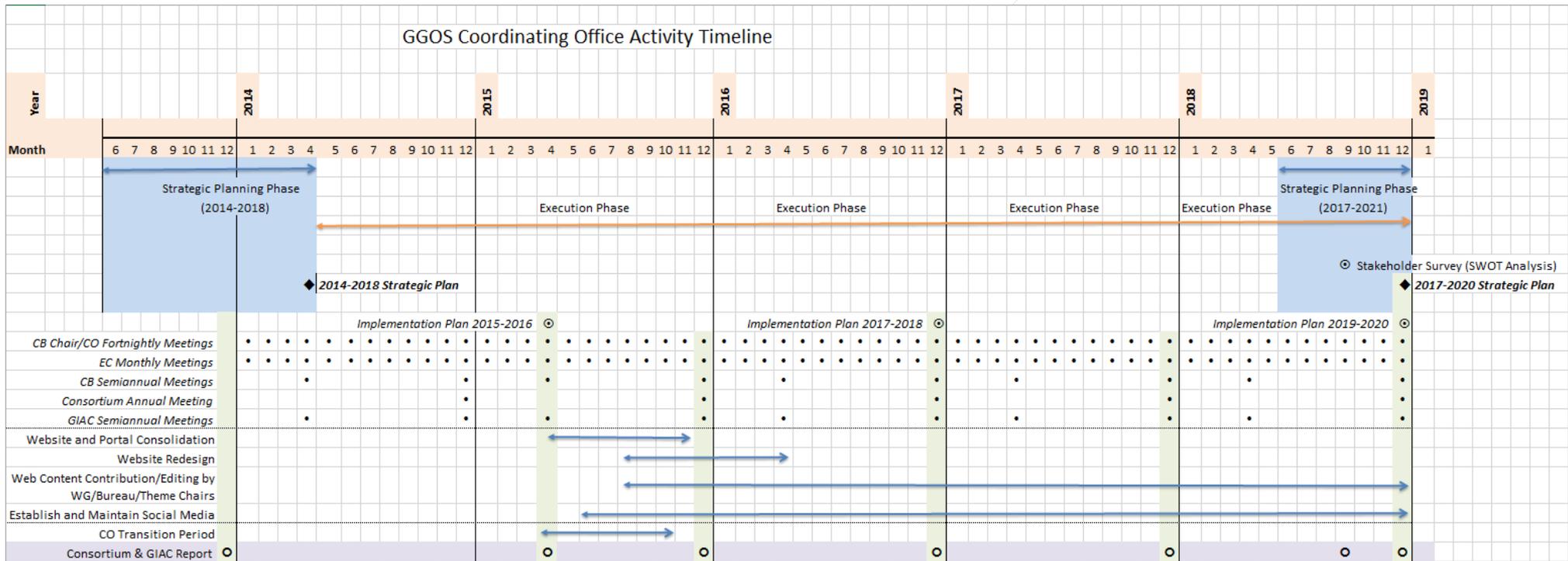
2. Redesign and develop a new GGOS brochure, as well as one page fact sheets and other pertinent media.

Transfer of GGOS Coordinating Office

The outgoing Coordinating Office is located at the Agenzia Spaziale Italiana (ASI) in Bari, Italy. In order to transfer all data, knowledge, and other assets associated with the Coordinating Office, a transition period will be required. Members of the incoming Coordinating Office will need to arrange virtual and in-person meetings with the outgoing Coordinating Office in order to ensure that assets are transferred completely and successfully.

Simultaneous to this, a survey of the Consortium should be conducted to assess current levels of interaction with the Coordinating Office. This may take the form of a Strengths, Weaknesses, Opportunities, and Threats (SWOT) survey.

Figure 2.2-1: Schedule of the Coordinating Office activities.



2.3 Resources

The human resources needed to operate the GGOS Coordinating Board are those captured in Table 1.3-1: Coordinating Office Resources.

Material resources are provided by the institutions sponsoring the members of the board.

Travel is similarly covered by the institutions sponsoring the members of the board.

Other costs, such as meeting rooms and teleconferences are covered by the hosting institutions.

3.0 CHANGE LOG

Table 3-1: Coordinating Board Implementation Plan Change Log

VERSION	RELEASE DATE	SYNOPSIS OF RELEASE
0.1	[150326]	First draft for review

4.0 APPENDICES

Appendix A Abbreviations

BKG	Bundesamt für Kartographie und Geodäsie - <i>German Federal Agency for Cartography and Geodesy</i>
FTE	Full-time Equivalent
GIAC	GGOS Interagency Committee
GIMS	GGOS Integrated Master Schedule
GGOS	Global Geodetic Observing System
IAG	International Association of Geodesy
NASA	National Aeronautics and Space Administration

Appendix B Glossary

Table B-1: Terms and Definitions

TERM	DEFINITION
[Term goes here]	[Definition goes here]
[Term goes here]	[Definition goes here]

Appendix C References

[GGOS 2020]: Global Geodetic Observing System: Meeting the Requirements of a Global Society on an Changing Planet in 2020", H.-P. Plag and M. Pearlman (editors) , Springer, 2009

[GGOS ToR] Terms of Reference of the Global Geodetic Observing System (GGOS), IAG Executive Committee, IUGG XXV General Assembly, Melbourne, Australia, July 2011.