



## **Call for Participation in AIP-3**

### **GEOSS Architecture Implementation Pilot (AIP)**

**Due Date for CFP Responses: 3 March 2010**

**Phase 3 Kickoff Workshop: 11-12 March 2010**

**Version: 29 January 2010**

## Preface

This Call for Participation (CFP) seeks organizations to participate in the 3<sup>rd</sup> Phase of the GEOSS Architecture Implementation Pilot (AIP-3). AIP develops and pilots new process and infrastructure components for the GCI and the broader GEOSS architecture. The main aims of AIP are to reach consensus on Interoperability Arrangements and to register operational components and services that carry forward into persistent operations of GEOSS.

This CFP invites GEO Members and Participating Organizations to:

- To participate in collaborative deployment of Societal Benefit Areas (SBA) scenarios developed by experts from relevant GEO SBA Tasks. The SBA scenarios guide AIP development, testing, demonstrations and operations.
- To deploy, register and test components and services; where those services are deployed consistent with the GEOSS AIP architecture based on Interoperability Arrangements; and,
- To refine the architecture including recommendations for GEOSS Interoperability Arrangements in coordination with the GEOSS ADC Standards and Interoperability Forum (SIF)

AIP-3 will continue an evolutionary development process with focus in this 3<sup>rd</sup> phase on:

- Increase GEOSS capacity to support SBAs. SBA developments will continue in AIP-3 for Disaster Management, Health/Air Quality, Biodiversity, and Energy. New SBA developments in AIP-3 for Health/Disease and topics in Water.
- Build on the AIP Service Architecture and the GEOSS Common Infrastructure (GCI). Refine the service-oriented architecture and the evolutionary development process. Exploit the service architecture for mash-ups in a link-rich environment.
- Focus on increasing the data available through GEOSS component and service providers. In coordination with other GEO tasks, promote deployment and registration of EO information. Identify and refine Interoperability Arrangements for information: e.g., semantic approaches to geophysical parameters, and implementation of GEOSS Data Sharing Guidelines.
- AIP-3 development will include support of the EO Summit, November 2010

*To be most effective, organizations responding to the CFP should plan to fully participate in the Pilot development activities beginning with the Kickoff Workshop in March 2010.*

This CFP normatively references two documents:

- GEOSS AIP Development Process, Version 29 January 2010
- GEOSS AIP Architecture, Version 29 January 2010

Both documents are available at this URL:

[http://earthobservations.org/geoss\\_call\\_aip.shtml](http://earthobservations.org/geoss_call_aip.shtml)

This CFP will remain open for the duration of AIP-3.

# Geospatial Architecture Implementation Pilot - 3 Call for Participation (CFP)

## TABLE OF CONTENTS

<b>1 INTRODUCTION .....</b>	<b>1</b>
1.1 PURPOSE.....	1
1.2 THE CFP PROCESS.....	1
1.3 MASTER SCHEDULE.....	2
<b>2 CONTEXT.....</b>	<b>2</b>
<b>3 CFP RESPONSE TERMS AND CONDITIONS.....</b>	<b>5</b>
<b>4 CFP RESPONSE FORMAT AND CONTENT .....</b>	<b>5</b>
4.1 RESPONSE OUTLINE.....	5
4.2 COVER PAGE .....	6
4.3 OVERVIEW.....	6
4.4 PROPOSED CONTRIBUTIONS.....	6
4.5 DESCRIPTION OF RESPONDING ORGANIZATION .....	7

## **Geospatial Architecture Implementation Pilot Call for Participation (CFP)**

### **1 Introduction**

#### **1.1 Purpose**

This Call for Participation (CFP) seeks organizations to participate in 3<sup>rd</sup> Phase of the GEOSS Architecture Implementation Pilot (AIP). GEO Task AR-09-01b created this CFP.

Responses to this CFP may come from governmental or non-governmental organizations that are either located in a GEO Member country or that are members of a GEO Participating Organization. Responses are encouraged to include or reference multiple parties that are collaborating on the offer of persistent services, data, and/or applications that benefit one or more GEO Societal Benefit Areas (SBAs).

Since the Pilot will address interoperability and user support in the broadest manner, broad participation is encouraged in order to achieve the Pilot's objectives on a voluntary basis. This broad participation benefits both the participating organizations and the GEOSS Architecture development.

All organizations interested in participating in the Pilot shall respond to this CFP. Instructions for responding are provided in Section 3. The CFP will remain open for organizations to respond any time during AIP-3. To be most effective, responses are encouraged prior to the Kickoff Response Due Date and to attend the Kickoff Workshop.

All organizations should assume that their responses to the CFP are accepted for participation in the Pilot unless they are notified otherwise.

#### **1.2 The CFP Process**

The CFP Process is part of the AIP Evolutionary Development Process. The first Phase of AIP included several Requests for Information (RFIs) that determined the interest and state of readiness for conducting the Pilot Execution Phase. The results of AIP-1 and AIP-2 were used as inputs for this CFP. This CFP seeks participants in AIP-3.

This CFP normatively references two documents:

- GEOSS AIP Development Process, Version 29 January 2010
- GEOSS AIP Architecture, Version 29 January 2010

Both documents are available at this URL:

[http://earthobservations.org/geoss\\_call\\_aip.shtml](http://earthobservations.org/geoss_call_aip.shtml)

(Note: The AIP process was been defined using the Open Geospatial Consortium's (OGC's) Interoperability Program process. The OGC Interoperability Program is a global, collaborative prototyping program designed for rapid development of implementations and specifications for geospatial interoperability. )

## 1.3 Master Schedule

AIP-3 will be planned and executed in accordance with the GEOSS AIP Development Process.

The following table details the major events associated with this CFP:

CFP Issued	29 January 2010
Kickoff Response Due Date	3 March 2010
Kickoff Workshop at ESA-ESRIN, Frascati, Italy	11-12 March 2010
Demo Capture Workshop TBD (USA)	TBD September 2010
Status and Interim results to EO Summit and GEO Plenary, Beijing, China	3-5 November 2010
Final results of Phase 2 AIP	December 2010

CFP Responses received by the Kickoff Response Due Date will be used to prepare for the Kickoff Workshop.

Discussion and clarification of the CFP will be the topic of several teleconferences after the CFP is issued and before the Kickoff Workshop. Agenda and logistics for these telecons is posted at <http://www.ogcnetwork.net/AIPtelecons>

## 2 Context

The GEO Work Plan charges Task AR-09-01b, “Architecture Implementation Pilot,” to:

- Develop and pilot new process and infrastructure components for the GCI and the broader GEOSS architecture
- Incorporate GEOSS contributed components into a pilot implementation of the GEOSS Architecture in coordination with Task AR-09-01a.

The main aim of AIP is to reach consensus on Interoperability Arrangements and to register operational components and services that carry forward into persistent operations of GEOSS.

Participants in the pilot use and implement services identified in the GEOSS AIP Architecture. Beyond the approach described in the GEOSS AIP Architecture, participants have flexibility in deploying interoperable interfaces and protocols for use in the demonstrations associated with the operational context.

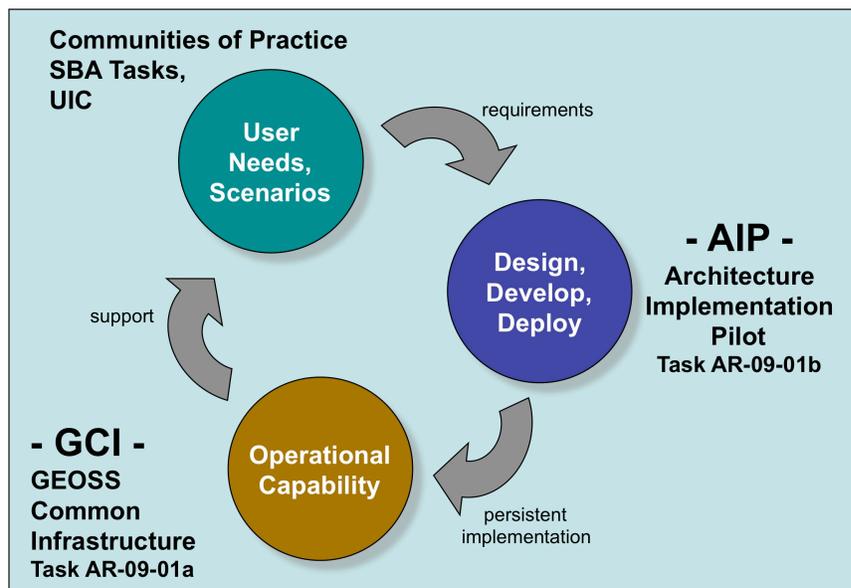
The GEOSS AIP Architecture is based on current “mainstream” approaches identified in previous AIP phases and was selected to provide the best opportunity for meeting the GEOSS requirements. This architecture is not intended to determine the physical system configuration, but to identify the interfaces and protocols within the current mainstream. Participants are assumed to be providing any and all hardware, software, networks, personnel, etc., needed to make their services available to the Pilot.

## GEOSS AIP Phase 3 – Call for Participation

Participation in this Pilot anticipates:

- 1) Refinement and augmentation of the GEOSS Common Infrastructure including GEO Web Portal, Clearinghouse and Registries solutions.
- 2) Registration of components and services hosted by the participating organization in the GEOSS Registry to support access by the Clearinghouse and Portal, and to support demonstration of a set of user scenarios.
- 3) Participation in the development of a set of user scenarios that support the GEO Societal Benefit Areas.
- 4) Participation in the refinement of the initial architecture in GEOSS AIP Architecture based upon the pilot activities.

The context of AIP with regard to other GEO Activities can be seen in Figure 1.



**Figure 1 – AIP Context in GEO Tasks**

AIP-3 will be developed in the context of the GEOSS Common Infrastructure (GCI). An Initial Operating Capability of GCI was previously established. The GEO-VI Plenary agreed that a dedicated GCI Coordinating Team is to be formed to oversee the operations and evolution of the GCI. At present, this team is still being formed, and it is expected that its membership and terms of reference will be endorsed in March 2010. Anticipating these terms of reference it is expected that the GCI Coordinating Team will oversee transition to operations of successful pilot projects. In support of this, the team will need information on AIP-3 progress and its impact on GCI standards, components and interfaces. For specific crosscutting issues like Data Sharing Principles implementation a direct interaction between the GCI Team and specific AIP3 teams may be needed.

Collaboration with other GEO Tasks is anticipated, in particular with GEO Task AR-09-01a. A partial listing of coordination with GEO Tasks is shown in Table 1.

**GEOSS AIP Phase 3 – Call for Participation**

**Table 1 – Examples of AIP Coordination with GEO Tasks**

<b>Session</b>	<b>Task #</b>	<b>Task Short Title</b>
Disasters	DI-06-09	Use of Satellites for Risk Management
Biodiversity	BI-06-02	Biodiversity Requirements in Earth Observation
Biodiversity	EC-07-01	Global Ecosystem Observation and Monitoring Network
Biodiversity	BI-06-03	Capturing Historical Biodiversity Data
Energy	EN-06-04	Using New Observation Systems for Energy
Air Quality	HE-07-02	Environment and Health Monitoring and Modelling
Intercalibration	DA-06-02	Data Quality Assurance Framework
AG Mon	AG-07-03	Operational Agricultural Monitoring System
Sensors	DA-07-03	Virtual Constellations
Sensors	DA-07-04	Sensor Web Enablement for In-Situ
Registry	DA-06-04	Data, Metadata and Products Harmonisation
Overall	DA-06-01	Implementation of the Agreed GEOSS Data Sharing Principles
Overall	AR-07-01	Enabling Deployment of a GEOSS Architecture
Overall	AR-09-01B	GEOSS Architecture Implementation Pilot

### 3 CFP Response Terms and Conditions

Documentation submitted in response to this CFP will be distributed to many organizations and may be posted on a publicly accessible web site. Responders shall not include information in their responses which they are not authorized to distribute. Proprietary and confidential information must not be submitted under this request. It will be assumed that CFP responses do not contain confidential information.

This CFP does not offer compensation to organizations preparing a response to the CFP. The CFP does not offer funds to any organizations for participation in the Pilot.

Submit an electronic copy of your CFP response to the AIP Task Point of Contact (George Percivall, [gpercivall@opengeospatial.org](mailto:gpercivall@opengeospatial.org)). Microsoft Word® 2000 for Windows, 2001 for Macintosh, or higher format is preferred; however, Portable Document Format or Rich Text Format are acceptable.

Proposals must be received no later than the date and time in Master Schedule (Section 1.3).

All organizations should assume that their responses to the CFP are accepted for participation in the Pilot unless they are notified otherwise.

Questions and requests for clarification should be sent electronically to the AIP Task Point of Contact (George Percivall, [gpercivall@opengeospatial.org](mailto:gpercivall@opengeospatial.org)).

Participation in AIP Telecons is urged before and after responding to this CFP.

Information about AIP Telecons is posted on-line:

<http://www.ogcnetwork.net/AIPtelecons>

### 4 CFP Response Format and Content

#### 4.1 Response Outline

Responses should follow the following outline:

- Cover page
- Overview
- Proposed Contributions
  - Societal Benefit Area Alignment and Support
  - Component and Service Contributions
  - Architecture and Interoperability Arrangement (Standards) Development
- Description of Responding Organization

A template for responding to this CFP is available at

[http://earthobservations.org/geoss\\_call\\_aip.shtml](http://earthobservations.org/geoss_call_aip.shtml)

## 4.2 Cover Page

Provide the name(s) of the responding organization(s). Teams of organizations should list the names of all organizations. It is encouraged that organizational logos are included on the cover page.

## 4.3 Overview

Provide a one-page introduction to the contents of your proposal and its benefits.

## 4.4 Proposed Contributions

Describe your proposed contribution to the Pilot based on your desired role.

### 4.4.1 Societal Benefit Area Alignment and Support

Document the one or more Societal Benefit Areas (SBA) that you are best aligned with and will be supporting.

If you are proposing to enhance the SBA descriptions and deployment, please include the following in your response:

- Comment on the SBA Scenario section of GEOSS AIP Architecture.
- Define your scenarios (e.g. web service-oriented use cases, workflows, decision support environments).
- Delineate aspects of the existing GEOSS AIP Architecture scenarios to which you propose to contribute.
- Provide comments on the GEOSS AIP Architecture to increase the expectation that the results will support SBAs.
- Describe participation and/or membership of the responding organization in SBA activities; list relevant experience for SBAs the organization is offering to participate in,
- Define plans for participating in the Pilot Activities regarding scenario development and the application of the scenarios to component integration and demonstration.

Do not assume a single participant development or demonstration; rather the developments will show how the various components can interoperate to produce results unique to coordinated activity of the participants.

### 4.4.2 Component and Service Contributions

If you plan to contribute components and services, please include the following in your response:

- Descriptions of components and services to be registered with GEOSS;
- Relationship of the components and services to in the GEOSS AIP Architecture. Comments to support the refinement of the GEOSS AIP Architecture are encouraged;
- Examples of which SBAs that the components and services are intended to support, e.g., relevant data, processing capabilities and/or client applications. Examples should be given as well of *other* SBAs the components and services *might* support;

## GEOSS AIP Phase 3 – Call for Participation

- Support of open standards by the services, particularly with regard to the potential for reuse across multiple scenarios within GEOSS;
- An understanding of how proposed components and services will be used in conjunction with the GEOSS Common Infrastructure (GCI): GEOSS Registries, Portal, and Clearinghouse. If you will provide client application capabilities, identify how this may also exploit the GCI in the proposed project;
- Performance capability of the components including typical traffic (hits per hour) that the components support; and
- Availability of the components for participation in the Pilot activities including longer-term persistent continuously available operations.

### ***4.4.3 Architecture and Interoperability Arrangement Development***

If you plan to contribute or support the refinement of the GEOSS AIP Architecture and Interoperability Arrangements, please include the following in your response:

- Comments and contributions to the GEOSS AIP Architecture,
- Comments and contributions to the GEOSS process for reaching Interoperability Arrangements led by the SIF (<http://seabass.ieee.org/groups/geoss/>).
- Describe participation and/or membership of the responding organization in standards developing organizations; list relevant experience for specific open standards,
- Plans to support refinement and elaboration of the currently defined architecture and Interoperability arrangements during the Pilot activities.

## **4.5 Description of Responding Organization**

Provide a brief description of responding organization including its relationship to the Pilot Initiative, e.g., GEO Member or Participating Organization.

Describe the Organization's approach to supporting the Pilot including identifying the human and system resources to be assigned to participate in the Pilot.

Provide contact information for both a Programmatic Contact and for a Technical Contact. The contact person may be the same for Programmatic and Technical contacts.