EGIDA Project
The EGIDA Methodology
P. Mazzetti (CNR-IIA)

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Outline

• Design of the EGIDA Methodology
• Description of the EGIDA Methodology
DESIGN OF THE EGIDA METHODOLOGY
The GEO provides a general framework for the GEOSS implementation, e.g. through the GEO STC Roadmap. However, due to its voluntary-based approach, GEO does not directly fund its activities and must leverage members’ efforts.

There are on-going and planned initiatives funded in the context of national and regional projects which contribute or might contribute to the GEOSS implementation.
Objective

• EGIDA activities aim to combine the top-down approach from GEO (GEO STC Roadmap support) and the bottom-up approach from national/regional initiatives.

• The EGIDA Methodology consolidates the EGIDA project experience for future use by defining a general methodological approach which can be adopted by national/regional S&T communities.
The EGIDA Methodology is a general methodological approach for implementing a (re-)engineering process of the S&T national infrastructures and systems, which can be adopted by national/regional S&T communities, for a sustainable contribution to the GEOSS and relevant European initiatives based on a SoS approach, through the mobilization of resources made available from the participation in national, European and international initiatives and projects.
EGIDA Methodology Scenarios

• **Regional/National Scenario**: A national project aims to deploy a national/regional infrastructure for sharing information relevant for GEO/GEOSS.

• **European Commission Framework Programme Scenario**: A multi-national project (e.g. funded in the context of the European FP) as part of its operational objectives, must deploy an infrastructure for sharing information relevant for GEO/GEOSS.

• **National GEO Scenario**: A central group has been established to coordinate efforts on capacity building at national/regional level taking into account the relevant supranational and global initiatives.
Targets

• The EGIDA Methodology is directed to:
  – National/regional S&T communities which would like to build a sustainable contribution to the GEOSS through resources available from on-going initiatives and projects.
  – European Programmes that aim to replicate or put in practice services related to the EO (e.g. GMES)
  – Funding agencies which would: a) provide guidelines for projects aiming to contribute to the GEOSS; b) assess results of funded projects;
Structure

• The EGIDA Methodology is structured as a set of guidelines for activities aligning the on-going and planned national/regional actions with the GEOSS objectives, addressing:
  – Technical Activities for:
    • Capacity building (System-of-Systems Engineering, lowering entry barriers,…) according to a SoS (re-)engineering process
  – Networking Activities
    • National/Regional S&T communities engagement
    • Sustainability
General approach for the design of the EGIDA Methodology

EGIDA analysis of national and European initiatives
EGIDA use-cases

EGIDA activities in support of GEO STC Roadmap

GEO Capacity Building Strategy
GEO STC Roadmap

EGIDA Deliverable D4.2
Design of the EGIDA Methodology

- Collect successful experiences from national/regional initiatives;
- Leverage the outcomes of the EGIDA activities in supporting ST-09-01 and ST-09-02;
- Derive principles and processes for a general methodology;
- Propose the draft methodology to the STC, AB and SN for discussion and advice;
- Assessment and evaluation through the application in use-cases.
Assessment of the EGIDA Methodology: Use cases

Four use-cases different for geographical extent, thematic coverage assessing different aspects of the EGIDA Methodology:

1. “Hot-spot pollution in the Mediterranean” [CNR] – regional, developing countries, thematic;
2. “Mediterranean region” [ISPRA] – regional, developing countries, multi-thematic;
**Rationale**

**Design of the EGIDA Methodology**

1. Collect successful experiences from national/regional initiatives;
2. Leverage the outcomes of the EGIDA activities in supporting ST-09-01 and ST-09-02;
3. Derive principles and processes for a general methodology;
4. Propose the draft methodology to the STC, AB and SN for discussion and advice;
5. Assessment and evaluation through the application in use-cases.

**EGIDA Use-cases**

- Input
- Use-cases
- Assessment
Evaluation and Assessment of the EGIDA Methodology in the four use-cases

1. Analysis of the EGIDA Methodology Guidelines
2. Match EGIDA Methodology Activities with the use-case actions
3. Apply the EGIDA Guidelines in relevant actions in the use-case
4. Evaluate the results
5. Provide feedback for the final version of the EGIDA Methodology
THE EGIDA METHODOLOGY
Document structure

Section

Activity

Sub-Activity

Description

Example box
Activities in the EGIDA Methodology

**Networking Activities**

- NA.1: Identification of stakeholders
- NA.2: Assessment of the awareness of GEO/GEOSS in the proposed network
- NA.3: Dissemination of the GEO/GEOSS initiative in the proposed network
- NA.4: Establishment and operation of the network
- NA.5: Address sustainability of the (re-)engineering process

**Technical Activities**

- TA.1: Definition of the management structure and process for capacity building
- TA.2: Identification and removal of barriers to information sharing
- TA.3: Design of a national/regional resource sharing system
- TA.4: Implementation of the system
- TA.5: Assessment and evaluation
- TA.6: Integration with GEOSS and other infrastructures
Networking Activities

NA.1 • Identification of stakeholders

NA.2 • Assessment of the awareness of GEO/GEOSS in the proposed network

NA.3 • Dissemination of the GEO/GEOSS initiative in the proposed network

NA.4 • Establishment and operation of the network

NA.5 • Address sustainability of the (re-)engineering process
Networking Activities

**NA.1**
- Identification of stakeholders

**NA.2**
- Assessment of the awareness of GEO/GEOSS in the proposed network

**NA.3**
- Dissemination of the GEO/GEOSS initiative in the proposed network

**NA.4**
- Establishment and operation of the network

**NA.5**
- Address sustainability of the (re-)engineering process

**NA.1a**
- Definition of the Stakeholders profile

**NA.1b**
- Collection of candidate stakeholders

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By typology:
- Research
- Industry
- Public Administrations
- Citizens
- Standardization Bodies
- Experts
- Other programs/initiatives

By role:
- (Intermediate and final) Users
- Information Providers
- Technology Providers
- Advisors

By scope:
- Priority setting
- User Requirements identification and refinement
- Assessment and validation through the running of pilot projects and case studies
- Consultation on specific issues (e.g. interoperability)
- Exploitation
- Sustainability

Selection of relevant stakeholders
How to address/engage them
Networking Activities

NA.1 • Identification of stakeholders

NA.2 • Assessment of the awareness of GEO/GEOSS in the proposed network

NA.3 • Dissemination of the GEO/GEOSS initiative in the proposed network

NA.4 • Establishment and operation of the network

NA.5 • Address sustainability of the (re-)engineering process

Build on the outcomes of activities to “Show GEOSS at work” (Activity 2d)

GEOSS Portfolio
Other Compelling examples
Possibly post-poned after the first TAs
Networking Activities

**NA.1**
- Identification of stakeholders

**NA.2**
- Assessment of the awareness of GEO/GEOSS in the proposed network

**NA.3**
- Dissemination of the GEO/GEOSS initiative in the proposed network

**NA.4**
- Establishment and operation of the network

**NA.5**
- Address sustainability of the (re-)engineering process

Strongly depending on the type of initiative:
- Workshops
- Mailing lists
- ...
Networking Activities

**NA.1**
- Identification of stakeholders

**NA.2**
- Assessment of the awareness of GEO/GEOSS in the proposed network

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- Dissemination of the GEO/GEOSS initiative in the proposed network

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- Establishment and operation of the network

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- Address sustainability of the (re-)engineering process

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Mobilization of resources from relevant on-going initiatives

Addressing national and supranational fundings

Build on the outcomes of activities to “Catalyze research and development resources” (Activity 2g)
**Technical Activities**

<table>
<thead>
<tr>
<th>TA.1</th>
<th>Definition of the management structure and process for capacity building</th>
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<td>Integration with GEOSS and other infrastructures</td>
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Technical Activities

TA.1 • Definition of the management structure and process for capacity building
  TA.1a • Central Coordination
  TA.1b • Definition of Thematic Working Groups
  TA.1c • Identification of relevant transversal areas/themes

TA.2 • Identification and removal of barriers to information sharing

TA.3 • Design of a national/regional resource sharing system

TA.4 • Implementation of the system

TA.5 • Assessment and evaluation

TA.6 • Integration with GEOSS and other infrastructures

Governance of the (re-) engineering actions
Integration of top-down and bottom-up approaches

Internal structuring of the working groups

Identification of relevant themes
  • Data policy
Technical Activities

TA.1 • Definition of the management structure and process for capacity building

TA.2 • Identification and removal of barriers to information sharing

TA.3 • Design of a national/regional resource sharing system

TA.4 • Implementation of the system

TA.5 • Assessment and evaluation

TA.6 • Integration with GEOSS and other infrastructures

Barriers to information sharing:
• Behavioral
• Legal
• Economical
• Technical
Technical Activities

- **TA.1** • Definition of the management structure and process for capacity building
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- **TA.3a** • Identifying existing systems/sub-systems
- **TA.3b** • Performing a gap analysis on existing infrastructures
- **TA.3c** • Identifying available components/tools

Re-engineering of existing systems
Identify what is missing:
- Infrastructures
- Resources
Re-use approach
Technical Activities

TA.1 • Definition of the management structure and process for capacity building

TA.2 • Identification and removal of barriers to information sharing

TA.3 • Design of a national/regional resource sharing system

TA.4 • Implementation of the system

TA.4a • Deployment of a portal

TA.4b • Deployment of a catalog service

TA.4c • Deployment of view services

TA.4d • Definition of a Data Policy

TA.4e • Deployment of access services

TA.4f • Deployment of advanced services

TA.5 • Assessment and evaluation

TA.6 • Integration with GEOSS and other infrastructures

A portal provides visibility to the initiative

Usually there is no objection to metadata sharing
Open tools/specifications available
Visibility to the initiative

As for the catalog

Lack of data policies often considered a barrier to resource sharing

If the policy is clear the deployment of access services is straightforward

Mediation Processing Workflow...
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Evaluate and assess the result of the (re-) engineering process for refinement.
Technical Activities

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Interoperability tests
Registration of components
EGIDA Project