Project of Strategic Interest NEXTDATA

Scientific Report for the reference period: 06–2013 / 12 –2013

WP 2.7 General Portal for data access

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This WP is based on the Special Project ND-SoS-Ina

(coordinator: Stefano Nativi, CNR IIA)

1. Scheduled activities, expected results and Milestones

The ND-SoS-Ina Special Project planned the following activities in the first reporting period:

Work Plan	Activity planned in the reporting period
WP1 Coordination and Management	
Task 1.1 Administrative and financial management	Sustained activity during the whole duration of the project
Task 1.2 Technical and scientific coordination	Sustained activity during the whole duration of the project
Task 1.3 Project Web site	Set up a light project web site. The web site management is then a sustained activity during the whole duration of the project
WP2 Requirements and System Architecture Design	
Task 2.1 General Requirements	Identification of the user requirements in the functional and non-technical areas based on their needs captured in the form of detailed use and service cases, identifying the adequate tools for data management, processing and visualization
Task 2.2 General System and Interoperability Architecture	Overall architecture of the final system with respect to internal requirements and standards, or protocols, being produced by external activities or programmes
Task 2.3 Web Portal Architecture	Definition of the Web Portal Architecture considering functional and non-functional requirements
Task 2.4 Coordination with other programmes	Sustained activity during the whole duration of the project
WP3 System Development, Integration, and Test	
Task 3.1 System of Systems middleware extension and integration	Integration with the portal and development of missing stubs, connectors.
Task 3.2 Web Portal development	First phase: utilize available technologies and tools to implement a first version of the web portal providing the most relevant functionalities. The portal will be built upon the services and interfaces being offered by the brokering middleware
Task 3.3 Middleware scalability enhancement	Initial activities for improving Discovery Broker middleware scalability
Task 3.4 System Integration and Testing	Initial activities for the integration of the developed software components (e.g. Web Portal, Brokering middleware, semantic assets, etc.) and run integration tests.
WP4 Operating the System	
Task 4.1 Operation of the testing infrastructure	Deploy, operate and maintain the first prototype system on an infrastructure

	satisfying the first requirements
WP5 Dissemination	
Task 5.1 Dissemination and exploitation	Sustained activity during the whole duration of the project
Task 5.2 Outreach support	Sustained activity during the whole duration of the project

The first reporting period refers to the end of M7. The project is moving towards its first milestone:

M1. First prototype of the ND System of Systems infrastructure, implementing the core functionalities (M12)

2. Deliverables expected for the reference period

Number	Description	Release date
D1.1	Detailed project plan	M1
D1.4	Project Web site (first release)	M2
D2.1	General System Requirements (first release)	M2
D2.2	General System and Interoperability Architecture (first release)	M3
D2.3	Web Portal Architecture (first release)	M3
D4.1	Test infrastructure	M5

3. Activities which have been actually conducted during the reference period

3.1 Research activities

- System and User requirements specification for the NextData e-infrastructure, including the requirements for interoperability with GEO and INSPIRE initiatives.
- Design of the NextData e-infrastructure architecture for data sharing.

3.2 Applications; technological and computational aspects

- Installation of the Brokering framework developed by CNR-IIA on the top of the CINECA computational platform.
- First prototype of the General Portal including basic functionalities.
- Brokering of the existing NextData capacities (i.e. data systems).
- The test infrastructure was established.

3.3 Formation
No activity in the reference period.

3.4 Dissemination

Development of the NextData SoS-Ina Website (http://essilab.eu/nextdata/sosina/).

3.5 Participation in conferences, workshops, meetings

NextData meetings.

GEO Plenary/Ministerial.

4. Results obtained during the reference period

4.1 Specific results (Data libraries, Measurements, Numerical simulations, etc)

- First prototype of the NextData General portal.
- Brokering of the current datasets shared by NextData.

4.2 Publications
None in the reference period.

4.3 Availability of data and model outputs (format, type of library, etc)

NextData shared data are searchable and a preview is available as a map.

4.4 Completed deliverables

D2.7.1 Requirements and System Architecture (ND- SoS-Ina).
D2.7.2 Web Portal Architecture - Test Infrastructure.

5. Comment on differences between expected activities/results/deliverables and those which have been actually performed.

No significant differences.

6. Expected activities for the following reference period

The next 12 months will include the final activities to achieve the first main milestone: "First prototype of the ND System of Systems infrastructure, implementing the core functionalities" (M12) and develop most of the activities to reach the second main milestone: "Consolidated version of the ND System of Systems infrastructure, implementing advanced functionalities" (M22).