



Project of Strategic Interest NEXTDATA

Scientific Report for the reference period 01-01-2013 / 31-/12-2013

WP 2.2 Archive of marine observation networks and climate reconstructions

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1. Scheduled activities, expected results and Milestones

The research activities of the second year of the project, as indicated in the executive plan, have been mostly focused on the archive organization and on the products release.

In the second year of the project, the archive was created with the MedReanV4bis and RR data produced and a second version of the catalogue was implemented on the basis of the new RR products. WP 2.2 has started to design and implement the NextData-INGV Geoportal, with the support of the private Company CLU s.r.l.

2. Deliverables expected for the reference period

D2.2.3: Opening of the archives on essential climatic variables; Transmission of data to General Portal.

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

3.1 Research activities

The activities performed during the second year were mostly dedicated to the partial implementation and to the design of the NextData-INGV Geoportal.

The NextData-INGV Geoportal will be a web application to discover and visualize the Reconstruction-Reanalyses (hereafter RR) data for the Mediterranean Sea for the past sixty years from 1953 up to 2012.

During the second year of the project, INGV completed the Reanalyses of the Mediterranean Sea starting from 1987 up to 2012, partially supported by Nextdata Project (see D1.3.3), and started to produce the RR since 1953.

Both datasets were delivered in netCDF format, adopting international standards concerning in particular standard_name and CF convention and following the data distribution policy of the project for gridded datasets. Both datasets have been made available through an INGV dedicated server using THREDDS protocol, with different temporal resolution:

- MedReanV4bis (1987-2012): as monthly means;
- RR (1955-1972): as daily means and as instantaneous field (snapshot) at 6hr.

In order to define user requirements for the NextData-INGV Geoportal, a requirement investigation, focusing on the catalogue, discovery and visualization functionalities, as described in D2.2.3, was conducted.

The selection of software for the development of different Geoportal layers has been done following the user requirements and taking into account the need of using open source software or software delivered under GPL Licence. Some changes in the selection can be envisaged depending on the test results that will be run during the portal development.

3.2 Applications; technological and computational aspects

INGV has installed THREDDS server and the infrastructure chosen to host the service is an INGV Linux-server infrastructure, providing the data archive and the web tool.

3.3 Formation

None in the reference period.

3.4 Dissemination

Dissemination activities have not been carried out during the second year.

3.5 Participation in conferences, workshops, meetings

None in the reference period.

4. Results obtained during the reference period

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

Both the MedReanV4bis and the RR data of the Mediterranean sea have been collected and organized during the second year and made available to the end-users through the THREDDS Data Server, as detailed in the D2.2.3.

4.2 Publications

None in the second year.

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

A detailed list and a complete specification of the data made available to the users is provided in the project deliverable D2.2.3 (Opening of the archives on essential climate variables and transmission of data to the General Portal).

4.4 Completed Deliverables

WP2.2 has completed the project Deliverable:

D2.2.3: Opening of the archives on essential climate variables and transmission of data to General Portals scheduled in the project implementation plan.

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

The meeting with the community of the end-users and release of beta archive and of the specific thematic portal have been postponed, after a complete evaluation of RR and implementation of INGV-NextData Geoportal.

6. Expected activities for the following reference period

In the course of the third year of the project, WP2.2 will complete the archive of RR and will improve the INGV-NextData Geoportal, improving the visualization service and introducing the transformation service.