Agile Analytics on Big Data Cubes

Fact Sheet

Project information

EarthServer-2

Grant agreement ID: 654367

Project website

Start date 1 May 2015

End date 30 April 2018

Funded under: H2020-EU.1.4.1.3.

Overall budget: € 2 839 743,75

EU contribution € 2 839 743

Coordinated by: JACOBS UNIVERSITY BREMEN GGMBH

Germany

Objective

EarthServer-2 makes Agile Analytics on Big Earth Data Cubes of sensor, image, simulation, and statistics data a commodity for non-experts and experts alike through

• navigation, extraction, aggregation, and recombining of any-size space/time data cubes;
• easy to install & maintain value-adding services extending the existing portfolio of data and compute centers;

In the Joint Research Activity, the project will advance the existing, world-leading rasdaman Array Database technology wrt. query functionality, inter-federation data processing with automatic data and query distribution, tape archive integration, and 3D/4D visualization based on NASA’s virtual globe technology.

In the Services Activity, large data centers (ECMWF, PML, MEEO/ESA, GeoScience Australia, JacobsUni) will set up water, air, weather, and planetary services on 3D & 4D data cubes up to Petabyte-size with user-tailored clients for both visual and textual ad-hoc mix&match.
In the Networking Activity, the project will advance open Big Data standards in OGC, RDA, and ISO (in particular: write ISO SQL/MDA). Further, all adequate channels will be used for strong dissemination & exploitation, specifically: writing a monograph explaining OGC Big Geo Data standards; scientific publications & active conference organization; Earth science data user workshops for each domain addressed; actively contributing technology & experience to GEO / GEOSS and further bodies; establish standardized Big Geo Data benchmark and run it against EarthServer-2 and further relevant systems.

Altogether, EarthServer-2 will maintain and extend the lead in Big Earth Data services established in the highly successful EarthServer-1 project. Being already supported by ESA, rasdaman will form an enabling building block for COPERNICUS / Sentinel.

Field of Science

/natural sciences/earth and related environmental sciences
/social sciences/sociology/governance/public services
/natural sciences/computer and information sciences/data science/big data
/natural sciences/computer and information sciences/data science/data processing

Programme(s)

H2020-EU.1.4.1.3. - Development, deployment and operation of ICT-based e-infrastructures

Topic(s)

EINFRA-1-2014 - Managing, preserving and computing with big research data

Call for proposal

H2020-EINFRA-2014-2

See other projects for this call

Funding Scheme

RIA - Research and Innovation action

Coordinator
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<th>Organisation</th>
<th>EU Contribution</th>
<th>Address</th>
<th>Activity type</th>
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<tr>
<td>JACOBS UNIVERSITY BREMEN GGMB</td>
<td>€ 841 618</td>
<td>Campus Ring 1</td>
<td>Higher or Secondary Education Establishments</td>
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<td>RASDAMAN GMBH</td>
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