PHIDIAS

Prototype of HPC/Data Infrastructure for On-demand Services

WHAT WILL **PHIDIAS** DELIVER?

PHIDIAS will be building a prototype for Data/High Performance Computing services based on Earth sciences cases.

The aim of the project is to enable the Earth science community to discover, manage and process spatial and environmental data spanning the Earth's surface, the atmosphere, and oceans.

In addition to developing datasets to be added into the EOSC catalogues, **PHIDIAS** will optimise workflows to facilitate data reuse, will provide open access to standardised HPC services, and will render the data FAIR.

PHIDIAS will explore a distributed model for data transfer and resource allocation between two European computing centers:

The data generated and the services created will be available on:

EU Open Data Portal · EUDAT · EUROPEAN OPEN SCIENCE CLOUD

USE CASES

Intelligent screening of satellite data for air quality and climate

HPC and high-performance data management will be exploited in order to develop intelligent screening approaches for the use of large amounts of satellite atmospheric data in an operational context. A prototype service on the already available Sentinel 5 Precursor (S5P) European atmospheric sounding mission will be implemented.

Big data earth observations

Based on extended HPC environment coupled with an architecture that allows access to massive storage capacity, the scalability of Earth Observation data processing chains will be enhanced. The mapping products for environmental monitoring coming from the end-users needs of THEIA land data centre network will be disseminated.

Ocean

The use of cloud services for marine data management, data service to user in a FAIR perspective, data processing on demand will be improved, taking into account the European Open Science Cloud (EOSC) challenge and the Copernicus Data and Information Access Services (DIAS).

PARTNERS

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