eXtreme DataCloud

Fact Sheet

Project Information

XDC

Grant agreement ID: 777367

DOI 10.3030/777367

Closed project

Funded under
EXCELLENT SCIENCE - Research Infrastructures

Total cost
€ 3 396 875,00

EU contribution
€ 3 077 000,00

Coordinated by
ISTITUTO NAZIONALE DI FISICA NUCLEARE
Italy

Start date
1 November 2017

End date
30 April 2020

This project is featured in...
Objective

The eXtreme DataCloud (XDC) project will develop scalable technologies for federating storage resources and managing data in highly distributed computing environments. The services provided will be capable of operating at the unprecedented scale required by the most demanding, data intensive, research experiments in Europe and Worldwide. XDC will be based on existing tools (TRL8+) that the project will enrich with new functionalities and plugins already available as prototypes (TRL6). The targeted platforms are the current and next generation e-Infrastructures deployed in Europe, such as the European Open Science Cloud (EOSC), the European Grid Infrastructure (EGI), the Worldwide LHC Computing Grid (WLCG) and the computing infrastructures that will be funded by the upcoming H2020 EINFRA-12 call. The main high-level topics addressed by the project include: federation of storage resources with standard protocols, smart caching solutions, policy driven data management based on Quality of Service, data lifecycle management, metadata handling and manipulation, data preprocessing and encryption during ingestion, optimized data management based on access patterns. All the developments will be driven and tested against real life use cases provided by the consortium partners representing research communities belonging to a variety of scientific domains: Life Science, Astrophysics, High Energy Physics, Photon Science and Clinical Research. The XDC software will be released as Open Source platforms available for general exploitation.

Fields of science

natural sciences > computer and information sciences > data science > big data
natural sciences > computer and information sciences > software > software development
natural sciences > physical sciences > astronomy > astrophysics
natural sciences > computer and information sciences > artificial intelligence > machine learning > deep learning
Programme(s)

H2020-EU.1.4. - EXCELLENT SCIENCE - Research Infrastructures  
H2020-EU.1.4.1.3. - Development, deployment and operation of ICT-based e-infrastructures

Topic(s)

EINFRA-21-2017 - Platform-driven e-infrastructure innovation

Call for proposal

H2020-EINFRA-2016-2017

See other projects for this call

Sub call

H2020-EINFRA-2017

Funding Scheme

RIA - Research and Innovation action

Coordinator

ISTITUTO NAZIONALE DI FISICA NUCLEARE

Net EU contribution

€ 583 000,00

Address

Via enrico fermi 54
00044 Frascati
Italy

Region

Centro (IT) > Lazio > Roma
Activity type

Research Organisations

Links

Contact the organisation  Website
Participation in EU R&I programmes
HORIZON collaboration network

Other funding

€ 0,00

Participants (7)

UNIVERSIDAD DE CANTABRIA
Spain
Net EU contribution
€ 287 875,00

Address
Avenida de los castros s/n
39005 Santander

Region
Noroeste > Cantabria > Cantabria

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation  Website
Participation in EU R&I programmes
HORIZON collaboration network

Other funding
€ 0,00

DEUTSCHES ELEKTRONEN-SYNCHROTRON DESY
Germany
Net EU contribution
€ 403 875,00

Address
ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE

Switzerland

Net EU contribution
€ 550 500,00

Address
Esplanade des particules 1 parcelle 11482 de meyrin batiment cadastral 1046
1211 Geneve 23

Region
Schweiz/Suisse/Svizzera > Région lémanique > Genève

Activity type
Research Organisations

Links
Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network

Other funding
€ 0,00

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE CNRS

France

Net EU contribution
AKADEMIA GORNICZO-HUTNICZA IM. STANISLAWA STASZICA W KRAKOWIE

Poland

Net EU contribution
€ 580 000,00

Address
Al adama mickiewicza 30
30-059 Krakow

Region
Makroregion południowy > Małopolskie > Miasto Kraków

Activity type
Higher or Secondary Education Establishments

Links
Contact the organisation
Website
Participation in EU R&I programmes
HORIZON collaboration network

Other funding
€ 319 875,00

ECRIN EUROPEAN CLINICAL RESEARCH INFRASTRUCTURE NETWORK
France

Net EU contribution
€ 179 750,00

Address
30 bd saint-jacques batiment b
75014 Paris

Region
Ile-de-France > Ile-de-France > Paris

Activity type
Research Organisations

Links
Contact the organisation  Website  Participation in EU R&I programmes  HORIZON collaboration network

Other funding
€ 0,00

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STICHTING EGI

Netherlands

Net EU contribution
€ 147 000,00

Address
Science park 140
1098 XG Amsterdam

Region
West-Nederland > Noord-Holland > Groot-Amsterdam

Activity type
Other

Links
Contact the organisation  Website  Participation in EU R&I programmes  HORIZON collaboration network

Other funding
€ 0,00

Last update: 18 August 2022