European support for DI4R

Present and future

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European Commission
DG CNECT
Unit C1: e-Infrastructure and Science Cloud

EINFRA-12-2017

Project	Description	Requested EU contribution	Number of partners
EOSC-hub	• It creates the integration and management system of the future European Open Science Cloud that delivers a catalogue of services, software and data from EGI, EUDAT, INDIGO-DataCloud and major research e-Infrastructures • It builds on mature processes, policies and tools to cover the whole life-cycle of services, from planning to delivery • It aggregates services from local, regional and national e-Infrastructures in Europe and worldwide • The the consortium involves 12 research infrastructures (BBMRI, CLARIN, CMS, DARIAH, ECRIN, EISCAT, ELIXIR, EPOS, ICOS/eLTER, LifeWatch, LOFAR) • A call for Thematic Service providers will be conducted (EUR 1.45M)	**€30M For 36 months**	**74**
OpenAIRE Advance	• It builds on the OpenAIRE infrastructure, comprised of a human network and robust technical services, aiming to be a trusted e-Infrastructure of the EOSC • It fosters capacity building activities and radically improves the OpenAIRE technical services by optimizing their performance and scalability and refining their functionality based on end-user feedback • It consolidates the range of services/products into a common e-Infra catalogue to enable a wider uptake	**€10M For 36 months**	**48**

Starting in January 2018

Complementarity

EOSC-hub and OpenAIRE-Advance are complementary projects

To ensure this complementarity…

- External Board has been appointed to help the projects to identify potential synergies, overlaps and gaps and prepare a collaboration plan

Jean-François ABRAMATIC	France	French Institute for Research in Computer Science and Automation (INRIA)	
Totka CHERNAEVA	Bulgaria	Ministry of Transport, Information Technologies and Communications – Bulgaria	
Sverker HOLMGREN	Sweden	Uppsala University	
Tuija PULKKINEN	Finland	Aalto University	
Emanuela SIRTORI	Italy	Centre for Industrial Studies and University of Milan, Innovation and Networks Executive Agency (INEA)	Rapporteur
John WOMERSLEY	United Kingdom	European Spallation Source	Chairperson

Collaboration agreement should be signed by end of March 2017

Areas of collaboration

1. Governance and sustainability

- Identify **common strategic goals** and look for feasibility of a future **common management structure**

2. Outreach, Support and Training

- Identify **overlaps and complementarities** to support Open Science in EOSC
- Plan **collaboration activities** and promote respective services
- Common language for approaching **common stakeholders** for support and engagement

3. Integrated service provision

- Enlarge support for publishing **research products** (data, software, experiments, research objects) beyond the scientific articles.
- Enlarge the **interoperability** by adopting common guidelines and APIs and integrating services
- Enlarge the usage and re-usage by making research products **more findable and accessible**

Building new Innovative services

Projects	Description	Requested EU contribution
FREYA **Discoverability**	Building on the outcomes of the project THOR, FREYA will establish an open, sustainable, and trusted framework for collaborative self-governance of PIDs and services built on them.	**€5M** **36 months**
DARE **Computing**	DARE will improve further and integrate tried and tested programmatic dataflow specification APIs, big-data technologies and provenance/data-lineage solutions to address the requirements of European RIs, initially of EPOS (Earth science), and IS/ENES2 (climate).	**€2.96M** **36 months**
DEEP HybridDataCloud **Computing**	DEEP will develop innovative services to support intensive computing techniques that require specialized HPC hardware, like GPUs or low latency interconnects, to explore very large datasets.	**€2.99M** **30 months**
PROCESS **Computing**	PROCESS will develop five very large data service prototypes, implemented using a mature, modular, generalizable open source solution for user friendly exascale data. It brings together top-level HPC and big data centres, communities with unique data challenges and e-infras.	**€2.97M** **36 months**
XDC **Computing**	XDC will develop scalable technologies for federating storage resources and managing data in highly distributed computing environments. The services will be capable of operating at the unprecedented scale required by the most demanding, data intensive, research experiments.	**€3.08M** **27 months**
EUXDAT **Computing**	EUXDAT (agri, land monitoring and energy efficiency) builds on existing mature components for solving problems related to huge amount of heterogeneous data, by providing a frontend for users to develop applications on top of an infrastructure based on HPC and Cloud.	**€3M** **36 months**

Research Data Alliance

RDA RESEARCH DATA ALLIANCE

- *RDA members collaborate together across the globe to tackle numerous infrastructure & data sharing challenges related to:*
  - **Reproducibility**
  - **Data preservation**
  - **Best practices for domain repositories**
  - **Legal interoperability**
  - **Data citation**
  - **Data type registries**
  - **Metadata**

e-Infrastructures in WP2018-20 (Chronological view)

TOPIC	Title	Type of Action	Open Date	Deadline	Budget
INFRAEOSC-01-2018	Access to **commercial services** through the EOSC hub	RIA	05/12/2017	22/03/2018	**€12M**
INFRAEOSC-02-2019	Prototyping new **innovative services**	RIA	16/10/2018	29/01/2019	**€28.5M**
INFRAEOSC-03-2020	**Integration** and **consolidation** of pan-European access mechanisms to public e-infrastructures and commercial services through the EOSC hub	RIA	tbd	tbd	**€79M**
INFRASUPP-03-2016	Policy and international cooperation measures for research infrastructures (b5) Support to **the e-Infrastructure Reflection Group** (e-IRG)	CSA	05/12/2017	22/03/2018	**€ 0.6M**
GÉANT - FPA	Research and Education **Networking**	SGA	Q3-2018	tbd	
	Increase of long-term **backbone capacity**	SGA	Q3-2018	tbd	**At least €16M**

Thank you!