PaNOSC factsheet

PaNOSC: Photon and Neutron Open Science Cloud

Call: Horizon 2020 InfraEOSC-04

Partners: ESRF, ILL, XFEL.EU, ESS, CERIC-ERIC, ELI-DC, EGI

Description: cluster of ESFRI Photon and Neutron sources

Observers/non-funded: GÉANT, EUDAT, national RIs

Linked 3rd parties via EGI: DESY, STFC. CESNET

Status: Started 1/12/2018

Github: https://github.com/panosc-eu

Home page: https://panosc.eu

Twitter: @PaNOSC_eu #PaNOSC

Budget: 12 M€

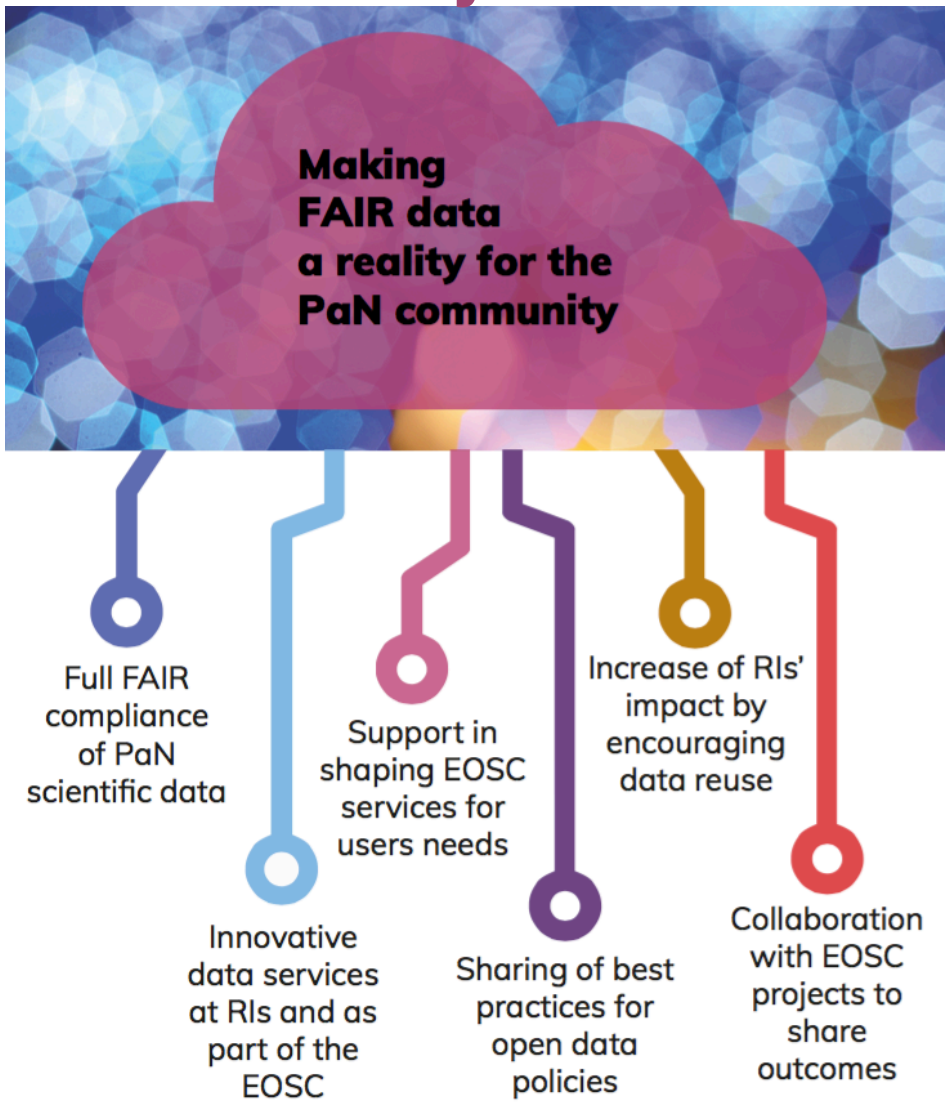
Coordinator: ESRF

Started: 1/12/2018

Duration: 4 years

ExPaNDS
European Open Science Cloud Photon and Neutron Data Services

PaNOSC Objectives



panosc

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 823852

PaNOSC achievements and SOLARIS

- **Achievements after 18 months**
  - PaNOSC FAIR data policy framework
  - Jupyter notebook services generalised
  - Generic data search API for finding data
  - HDF5 tools and enhanced viewers
  - Data analysis as a service portal
  - Data simulation and beamline optics design service (OASYS in the cloud)
  - Testing of data transfer solutions using OneData and GlobusOnline
  - pan-learning.org training platform ready
  - UmbrellaID ported to eduTEAMS
- **Impact for SOLARIS**
  - All outputs are of direct interest to SOLARIS
  - Adopting Jupyter notebooks encourages sharing of data processing scripts and helps users reduce their data faster
  - Data transfer of big data
  - Common user identities
  - **FAIR data policy**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 823852

SOLARIS Partner Facility

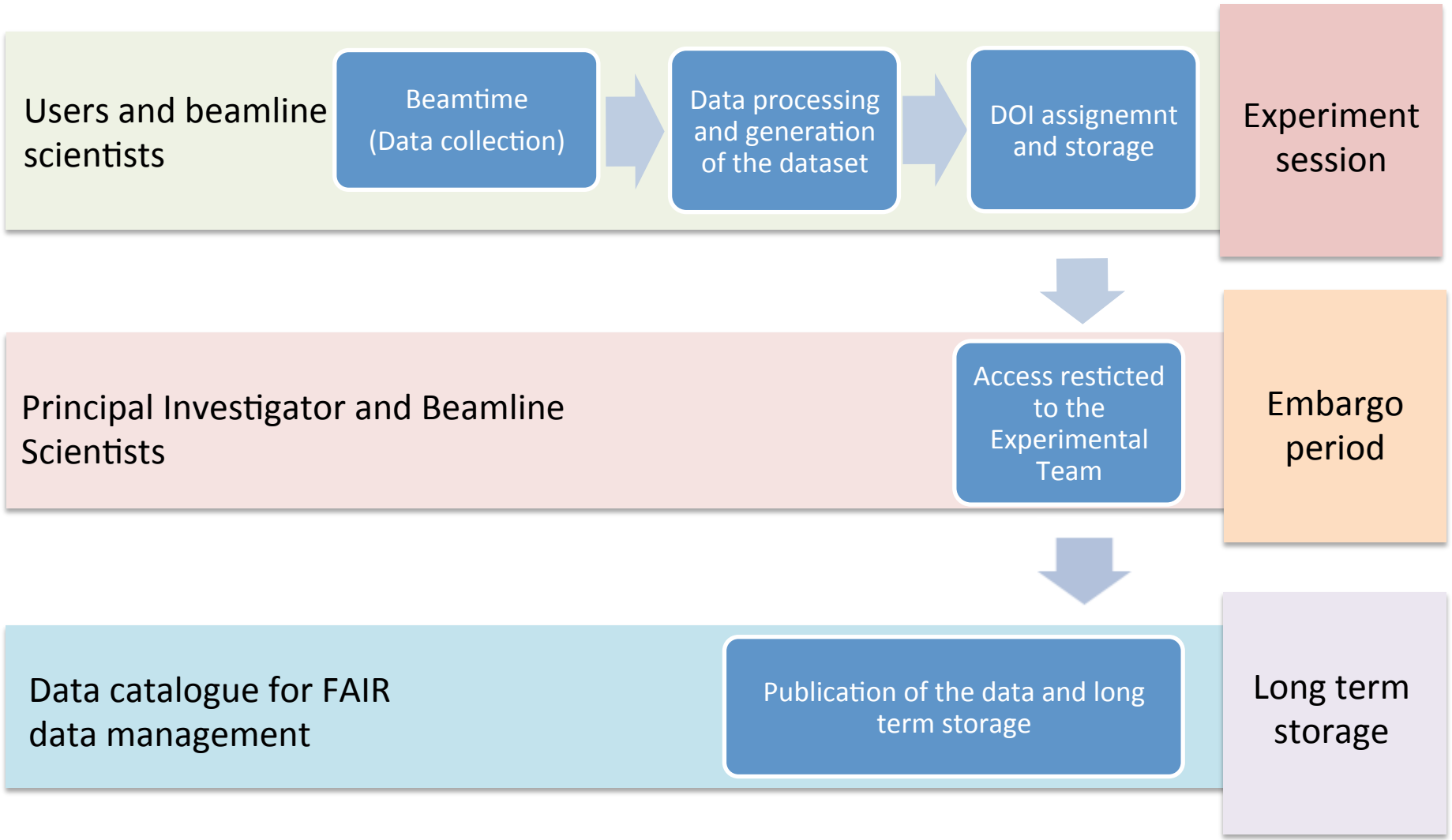
The Polish facility of CERIC-ERIC is composed by two Synchrotron beamlines and the Cryo-Transmission Electron Microscope (CryoEM) at SOLARIS:

Beamline	Instrument	Tecnique	Applications
PEEM/XAS beamline (200-2000 eV photon energy range)	PEEM – Photoemission Electron Microscopy	Photons	Spectroscopy studies by absorption of soft X-rays
	XAS	Photons	
UARPES undulator beamline (8-100 eV photon energy range)	UARPES	Photons	Precise studies on the structure of energy bands of solids and their surfaces
–	Krios™ G3i Cryo-Transmission Electron Microscope	Microscopy	Life science

Solaris is involved with its instruments and beamlines in all the regular calls of CERIC-ERIC (two calls per years) and also in some internal projects. The CryoEM has a key role in the new fast access call related COVID19 research.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 823852

New Experimental Workflow



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 823852

New Users' Workflow

Preliminary phase

- On line research of similar dataset (experiments, samples, conditions, scope, etc.)
- Preparation of the proposal;

Experiment session

- Generation of the dataset supported by the new Electronic Logbook;
- Data reduction and DOI assignment;

Embargo period

- Three years in which the access to the dataset is redistricted to the Experimental Team (Exceptions allowed, details available in the CERIC data policy);

Long term storage

- Publication of the dataset and citation of the DOI assigned to the supporting material (datasets from similar experiments, etc.)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 823852

Thank you

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 823852