

PaNOSC is a European project financed by the INFRAEOSC-04 call for making FAIR data a reality in six European Research Infrastructures (RIs) for photon and neutron science, developing and providing services for scientific data, and connecting these to the European Open Science Cloud (EOSC).

Background and Scope

Photon and Neutron (PaN) facilities are essential research infrastructures for the understanding of matter and its properties. Together these facilities produce petabytes of data, which can give us a more complete picture of the world around us.

PaNOSC (and its sister project, ExPaNDS) will make the data produced easily accessible to the users and the public, by providing scientific data management for enabling Open Science.

Data will be managed according to the FAIR principles. This means data will be curated and made available under an Open Data policy, and be findable, interoperable and reusable.

Overall Concept

The overall approach implemented implies to make the data available, as well as the data analysis software, contributing to "Reproducible Science and FAIR data, and increase the ability to find and inspect the data interactively.

Based on this approach, PaNOSC will provide:

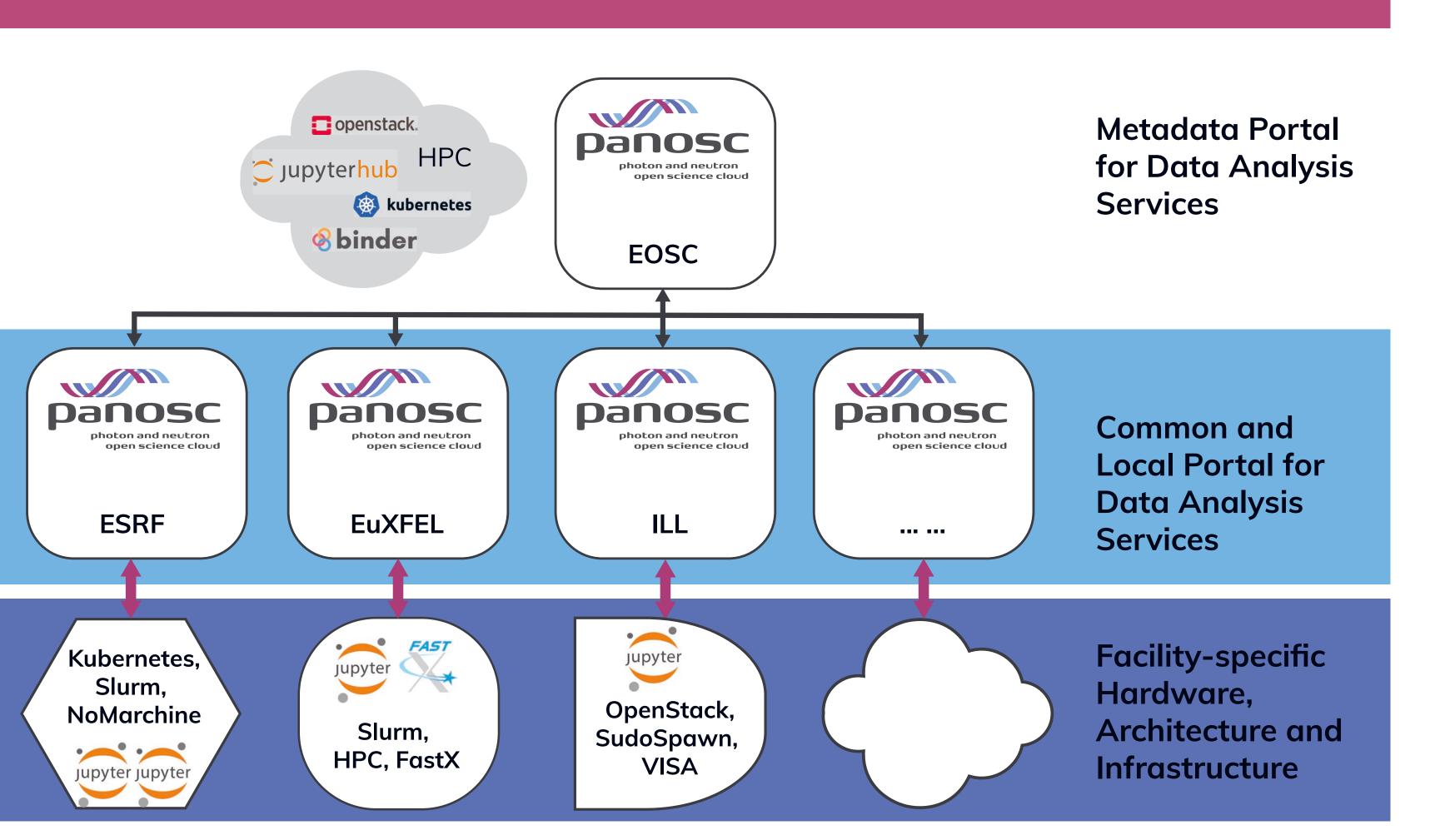
- Data analysis services to complement data and metadata;
- Open Source Software to share data analysis knowledge and expertise;
- Inform and train scientists to include software that has created the results shown in the manuscript as part of the publication, and include a description of how the software needs to be executed.

Strategy

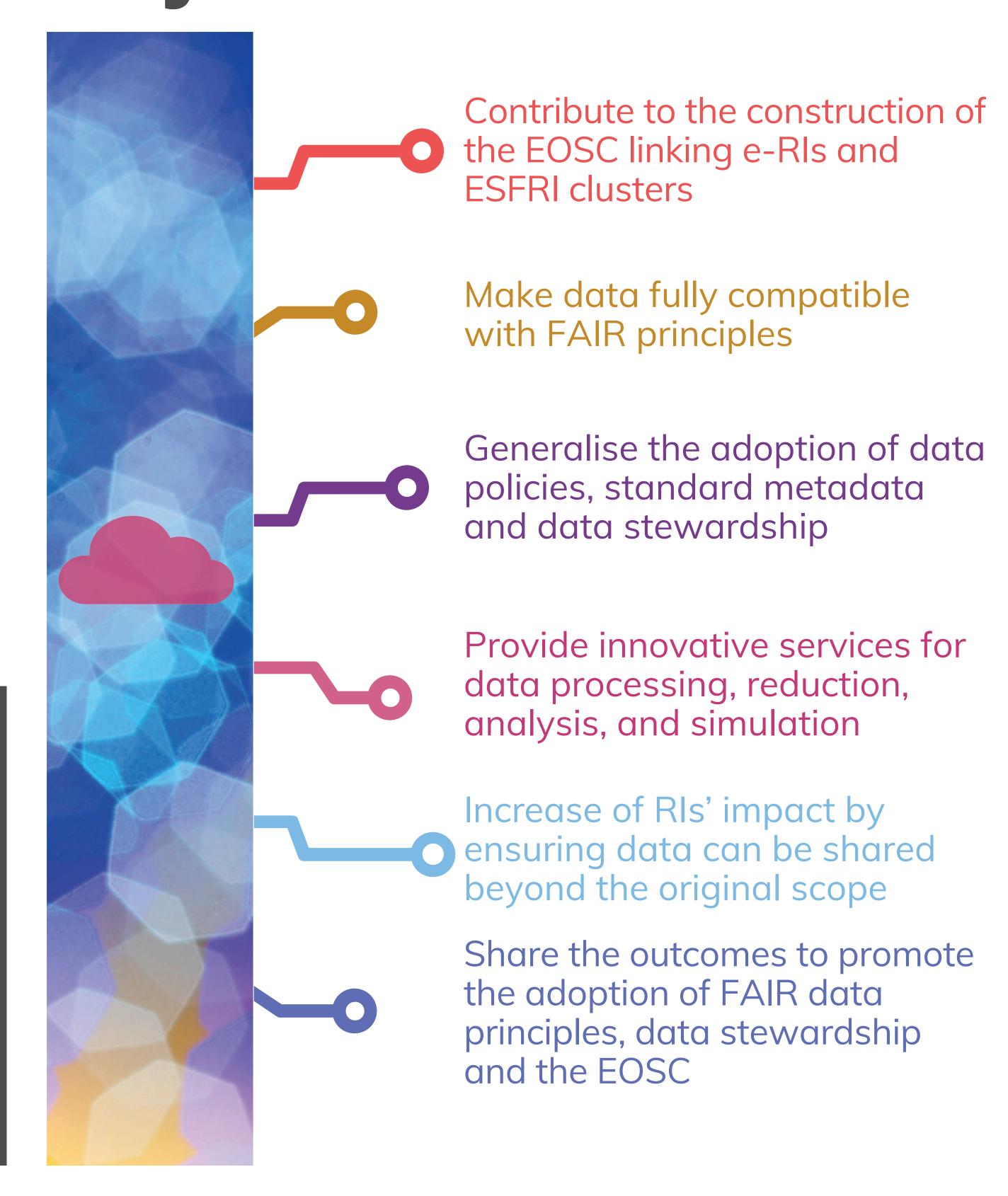
PaNOSC aims to create an analysis environment with analysis software available through a **data search portal** and **data analysis portal** connected to the facility specific services, such as authentication, metadata catalogues, file location information and remote analysis services.

Remote data analysis will be possible via the data analysis portal with Jupyter Notebook, or remote Desktop technologies.

The user experience should be similar at all facilities. Data sources and services that are used as back end to this portal will be facility specific.



Objectives



Partners

