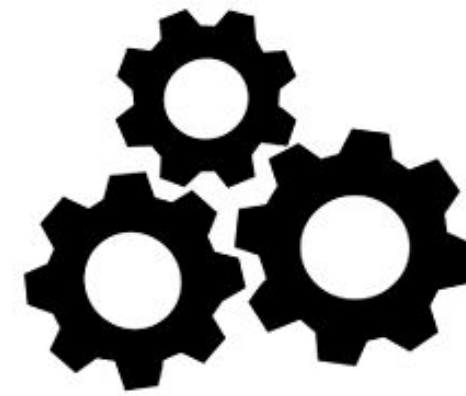


F<sub>indable</sub> A<sub>ccessible</sub> I<sub>nteroperable</sub> R<sub>eusable</sub>



FAIR Data API

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- “The work package will create an API that existing catalog solutions can adopt to allow for ***seamless integration into EOSC via OpenAIRE..***”
- The API will allow for FAIR exposure of the data at the individual institutions through a catalogue service
- The API will allow federation, and exposure of metadata relevant for the area
- Existing APIs (e.g OAI-PMH) and communities (e.g. openarchives.org, Dublin Core Metadata Initiative (DCMI), OpenAIRE) will be taken into account
- The API will enable domain specific search extensions aware of the metadata definitions and usage at photon and neutron facilities

- ExPaNDS has a dependency on this API
- Idea is to deliver PaNOSC services to ExPaNDS users?

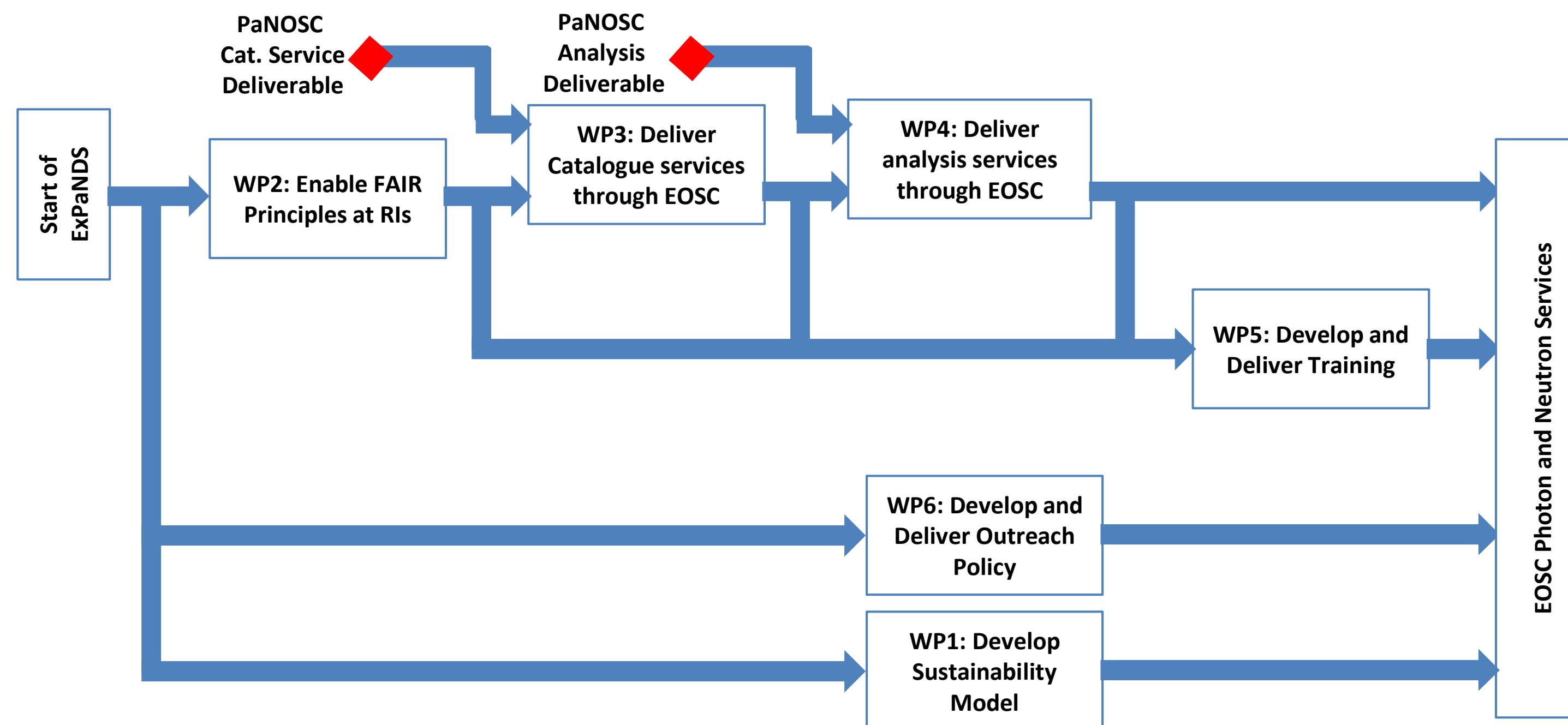


Figure 3.1.5: Relationship between ExPaNDS work packages

# We all have different catalogues

Table 1

Partner	CERIC	ESS	ELI	ESRF	ILL	XFEL
<b>Catalogue</b>	VUO (online storage NOT a catalog)	SciCat	TBD	ICAT	ILL Own	MyMdC
<b>URL</b>	<a href="https://vuo.elettra.trieste.it">https://vuo.elettra.trieste.it</a>	<a href="https://scicat.esss.se">https://scicat.esss.se</a>	---	<a href="https://datahub.esrf.fr">https://datahub.esrf.fr</a>	<a href="https://data.ill.eu">https://data.ill.eu</a>	<a href="https://in.xfel.eu/metadata">https://in.xfel.eu/metadata</a>
<b>Login required</b>	Yes	Yes	---	Yes	Yes	Yes
<b>File formats</b>	NeXus, HDF5, ASCII and many others	NeXus	---	EDF, SPEC, MCA, CBF, CCD, MCCD, HDF5, NeXus	NeXus and ILL Ascii	HDF5
<b>Database</b>	Oracle	MongoDB	---	Oracle and MongoDB	Oracle	MySQL and PostgreSQL
<b>Language</b>	Plsql, Python	Javascript	---	JAVA and Javascript	PHP	App: Ruby(onRails), Client: Python
<b>Main technologies</b>	WebDAV, Guacamole	Angular	---	React, NodeJS, EJB, JPA	Symfony, JQuery	Rails
<b>Number of public datasets/files</b>	0/0	181/250,000	---	~540K/157M	~250K/4M	0/0
<b>Using OAI-PMH</b>	No	Not yet installed	---	No	No	No
<b>Minting DOIs</b>	Yes	Yes	---	Yes	Yes	Yes
<b>Data/embargo policy</b>	Not defined	Embargoed for 3 years	---	<a href="#">Embargoed for 3 years, ESRF Data Policy</a>	<a href="#">Embargoed for 3 to 5 years, ILL Data Policy</a>	<a href="#">Embargoed for 3 with possible extension to 5 years, XFEL Data Policy</a>
<b>Number of instruments connected to data catalogue</b>	None	None	---	17	54	16

# Security - can we share database schema?

- We have a shared git repository
- We can upload code there
- For secret information, should not be uploaded to GitHub
- Keep a local config file

- Is a shared language for metadata
- Does not include e.g. scientific technique, sample etc
- Does include e.g. name, abstract, license etc
- We can include the Dublin core fields and add our own custom fields

# What metadata can we share

- Scientific technique: Reflectometry, X-ray imaging,
- Sample name: Vanadium, Water/H<sub>2</sub>O?
- Other fields?

# Where to start?

- Push data to OpenAire, via OAI-PMH, using Dublin Core + domain specific
- Next steps:
- Migrate to ResourceSync, if supported by OpenAire (Advance)
- <https://github.com/panosc-eu/fair-data-api>



# Getting metadata into OpenAire



- Follow instructions <https://provide.openaire.eu/landing>
- Login with e.g. ORCID.
- Register with re3data - we all need to do this.
- <https://www.re3data.org/>
- Setup OAI-PMH provider
- Connect to OpenAire

**re3data.org**  
REGISTRY OF RESEARCH DATA REPOSITORIES



<http://doi.org/10.17616/R31NJMKO>

SciCat