Photon **a**nd **N**eutron **O**pen **S**cience **C**loud

FAIR for Photon and Neutron User Facilities

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Promise of even higher scientific/societal impact

Keys metrics of a scientific User Facility :
o Nb of scientific proposals submitted (attractiveness)
o Nb and IF of scientific articles published using the experimental data (impact measurement).

Professional management of the production, like any other company

Better services for the facility users:
o Data are organized and easily accessible at any time
o Metadata are standardized and structured
o Easily citeable - Some journals request access to data for every article or for referees.
o Facilitate Data Management Plan

KPIs - Before PaNOSC - 2018
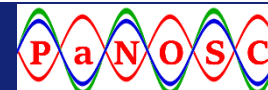
	ILL	ESRF	CERIC	XFEL	ELI	ESS
Data / yr	200 TB	8 PB	1 PB	3PB	< 1 PB	0
Data Policy	2011	2016	2014 (3/8)	2017	In progress	2017
Metadata catalogue	Local	Icat	Local	myMdC	No	SciCat
Metadata definitions	Nexus	Nexus	custom	myMdC	?	Nexus
DOI	2012	2018	No	2018	No	2018
Open Data	Yes	Yes	No	Yes	No	No
Data analyses Services	Pilot	In progress	Remote	In progress	?	In progress
Common data API	No	No	No	No	No	No
User training	No	No	No	No	No	No

Current status
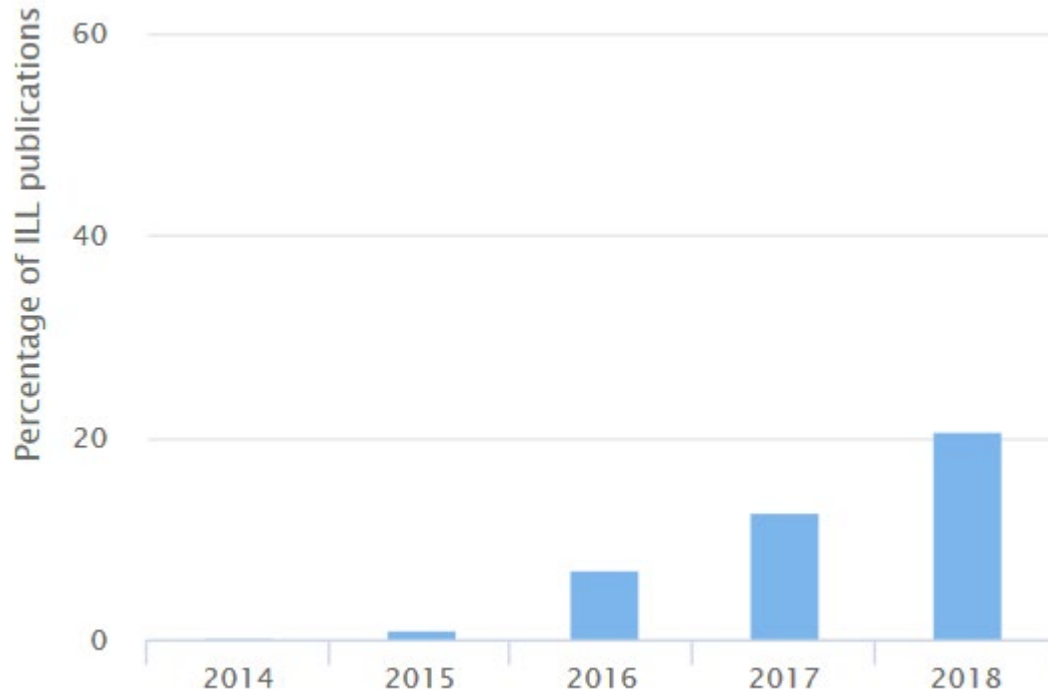
How many ILL users' publications are referencing data DOIs

- o User adoption in progress, but still slow to come.
- o Concepts till new for a large number of scientists.
- o Metrics: how successful are we?
- o Rewarding ?
- o EOSC critical mass

LOVE IT. HATE IT.
JUST DON'T FORGET TO USE IT.

D·O·I

ALL OUR USERS AGREE TO COMPLY WITH THE ILL PUBLICATION AND DATA POLICY.
THIS INCLUDES CORRECTLY CITING THE DOI REFERENCE WHEN PUBLISHING RESULTS BASED ON ILL DATA.
MORE INFO ON WWW.ILL.EU/DOIS

KPIs - After PaNOSC - 2023

	ILL	ESRF	CERIC	XFEL	ELI	ESS
Data / yr	600 TB	50 PB	15 PB	100PB	10 PB	<1PB
Data Policy	2011	2016	2019	2017	2019	2017
Metadata catalogue	Local	Icat	Icat	myMdC	[TBD]	SciCat
Metadata	Nexus	Nexus	Nexus	Nexus	[Nexus]	Nexus
Metadata collection	All BLs	All BLs	All BLs	All BLs	All BLs	All BLs
DOI	Yes	Yes	Yes	Yes	Yes	Yes
Open Data	Yes	Yes	Yes	Yes	Yes	Yes
Common API	Yes	Yes	Yes	Yes	Yes	Yes
User training	Yes	Yes	Yes	Yes	Yes	Yes
Data Services	Prod	Prod	Prod	Prod	Prod	Prod
EOSC	Integrated	Integrated	Integrated	Integrated	Integrated	Integrated

Actions regarding FAIR data, need for collaborations

o Update our community Data Policy Framework (PaNData 2008)
  - Compare with latest FAIR principles
  - Take into account new services
  - …

o Implement standard API on our data catalogue and federated search on (meta)data
o Extend NeXus metadata standards to enhance interoperability.
o Implement DMP template (provide users with an easy way to fill in DMPs)
o Continue to complete metadata environment (e-logbook, samples information, …)

o Promoting FAIR data culture, train scientists on how to create and use FAIR data.

o Setting clear and open metrics.
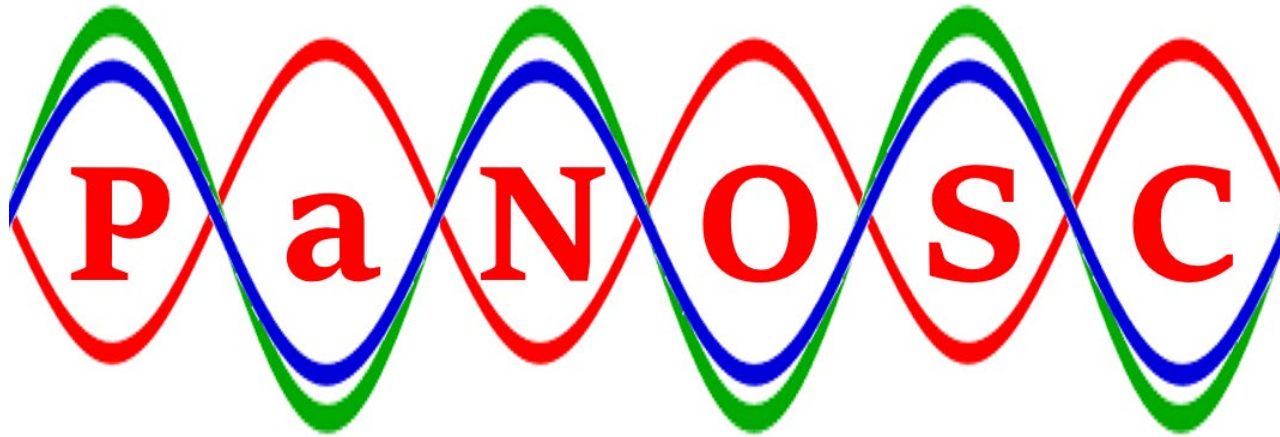
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Thank your for your attention.

Keep in touch