Welcome address

Andy Götz – PaNOSC Coordinator

ESRF

29 November 2022

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

GRENOBLE

winner 2022

EUROPEAN

~~GREEN~~ CAPITAL

PaN EOSC

An initiative of the European Commission

panosc

photon and neutron open science cloud

©GettyImages Olga Tarasyuk

Welcome !

To the PaNOSC Closing Event in Grenoble

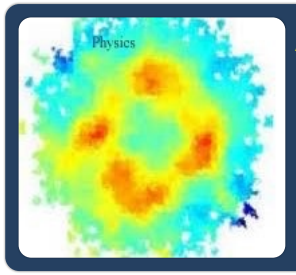
We are very pleased to welcome all partners + stakeholders:

- PaNOSC project members
- ExPaNDS project members
- Science Cluster coordinators
- EOSC-Association directors
- National projects – HMC, DAPHNE, NFFA, E-RIHS, …
- Learned societies – IUCr CommDat
- e-infrastructures, collaborators, friends, …

photon and neutron open science cloud

Photons and Neutrons cover Broad time and length scales

PHYSICS

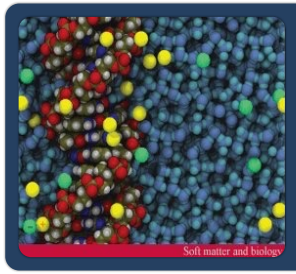


ANGSTROMS AND PICOSECONDS
- electronic and magnetic structure
- strongly correlated electron systems

CHEMISTRY

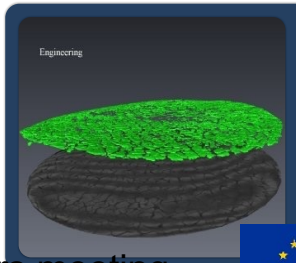
NANOMETRES AND NANOSECONDS
- chemical structure and dynamics
- structure/property relationships

SOFT MATTER & BIOLOGY



MICRONS AND MICROSECONDS
- interfaces, micelles, etc.
- protein structure and dynamics

ENGINEERING & MATERIALS SCIENCE



METRES AND MONTHS
- engineering measurements, heritage science
- Imaging, tomography, strain & stress, etc.

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Data Analysis as a Service – PaNDAAS meeting at ESRF (July 2016)

The Fourth Paradigm: Data-Intensive Science — *Dr Tony Hey*
Auditorium, ESRF 14:00 - 14:40

Life Sciences Perspective — *Prof. Dave Stuart*
Auditorium, ESRF 14:40 - 15:00

Progress report - ESRF — *Andy Gotz et al.*
Auditorium, ESRF 15:00 - 15:20

Progress report - STFC — *Mr Frazer Barnsley*
Auditorium, ESRF 15:20 - 15:40

Progress report - PSI — *Dr Mirjam van Daalen*
Auditorium, ESRF 15:40 - 16:00

Progress report - DLS — *Dr Alun Ashton*
Auditorium, ESRF 16:00 - 16:20

Coffee
ESRF entrance hall, ESRF 16:20 - 16:40

Progress report - DESY — *Frank Schluenzen*
Auditorium, ESRF 16:40 - 17:00

Progress report - SOLEIL — *Mr Majid Ounsy*
Auditorium, ESRF 17:00 - 17:20

Progress report - MAXIV — *Krister Larsson*
Auditorium, ESRF 17:20 - 17:40

Progress report - KIT — *Andreas Kopmann*
Auditorium, ESRF 17:40 - 18:00

Progress report - ALBA — *Mr Antoni Perez Font*
Auditorium, ESRF 18:00 - 18:20

European Open Science Cloud — *Dr Brian Matthews*
Auditorium, ESRF 08:30 - 08:50

Indigo-DataCloud — *Dr Davide Salomoni*
Auditorium, ESRF 08:50 - 09:10

HNSciCloud — *Bob Jones*
Auditorium, ESRF 09:10 - 09:30

CERN cloud experience — *Tim Bell*
Auditorium, ESRF 09:30 - 09:55

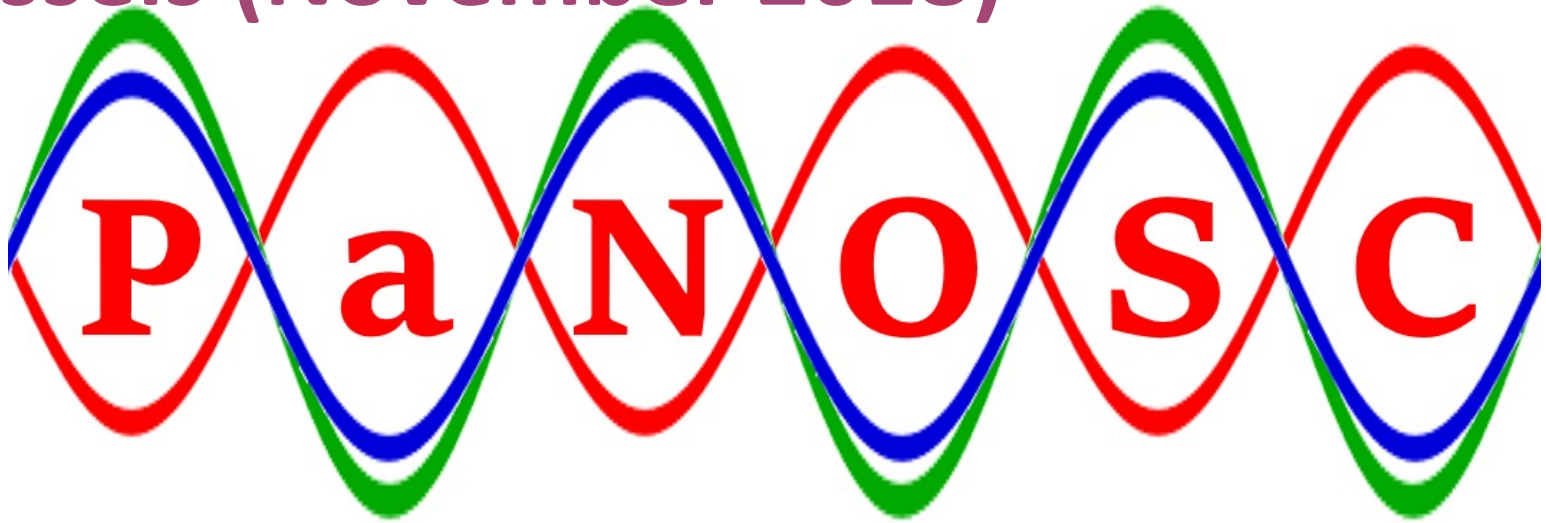
Coffee
ESRF entrance hall, ESRF 09:55 - 10:10

Panoramic and links to RDA projects — *Dr Brian Matthews et al.*
Auditorium, ESRF 10:10 - 10:30

DAAS @ ALS — *Alexander Hexemer*
Auditorium, ESRF 10:35 - 11:00

How to make PaNDaaS2 a successful collaboration — *Rudolf Dimper*
Auditorium, ESRF 11:00 - 12:00

PaNOSC @ EOSC Stakeholders meeting in Brussels (November 2018)



Photon and Neutron Open Science Cloud

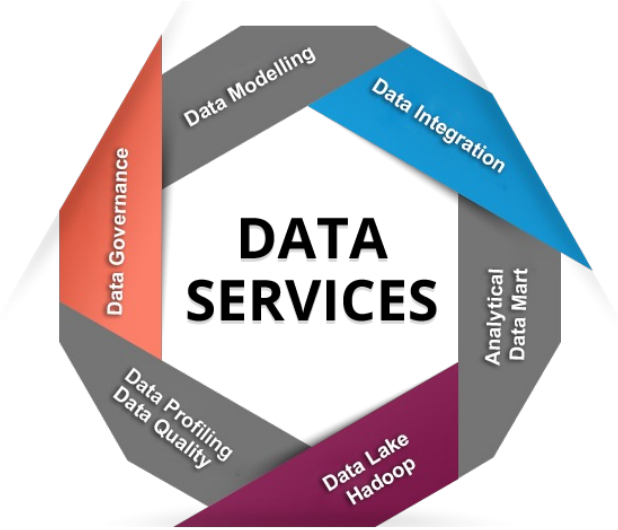
A. Götz
on behalf of the PaNOSC consortium

22 November 2018

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

PaNOSC Goals

Data Stewardship	• Generalise the adoption of **FAIR** open data principles
EOSC	• Federate data catalogs and integrate in EOSC and OpenAire meta-catalog, AAI, download services
Data Services	• Develop new data analysis, modelling and simulation services
User Training	• Train users how to write Data management plans, improve metadata, using DOIs, manage data better



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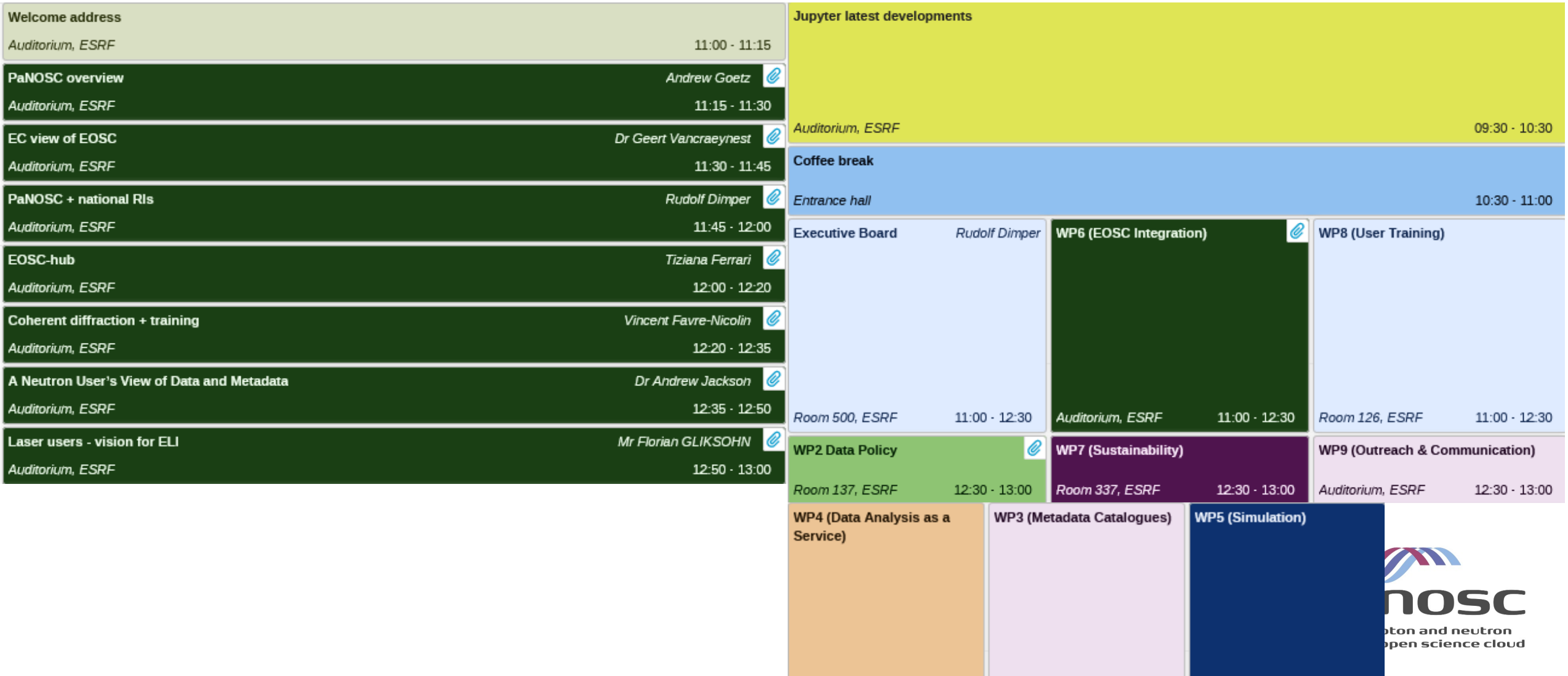
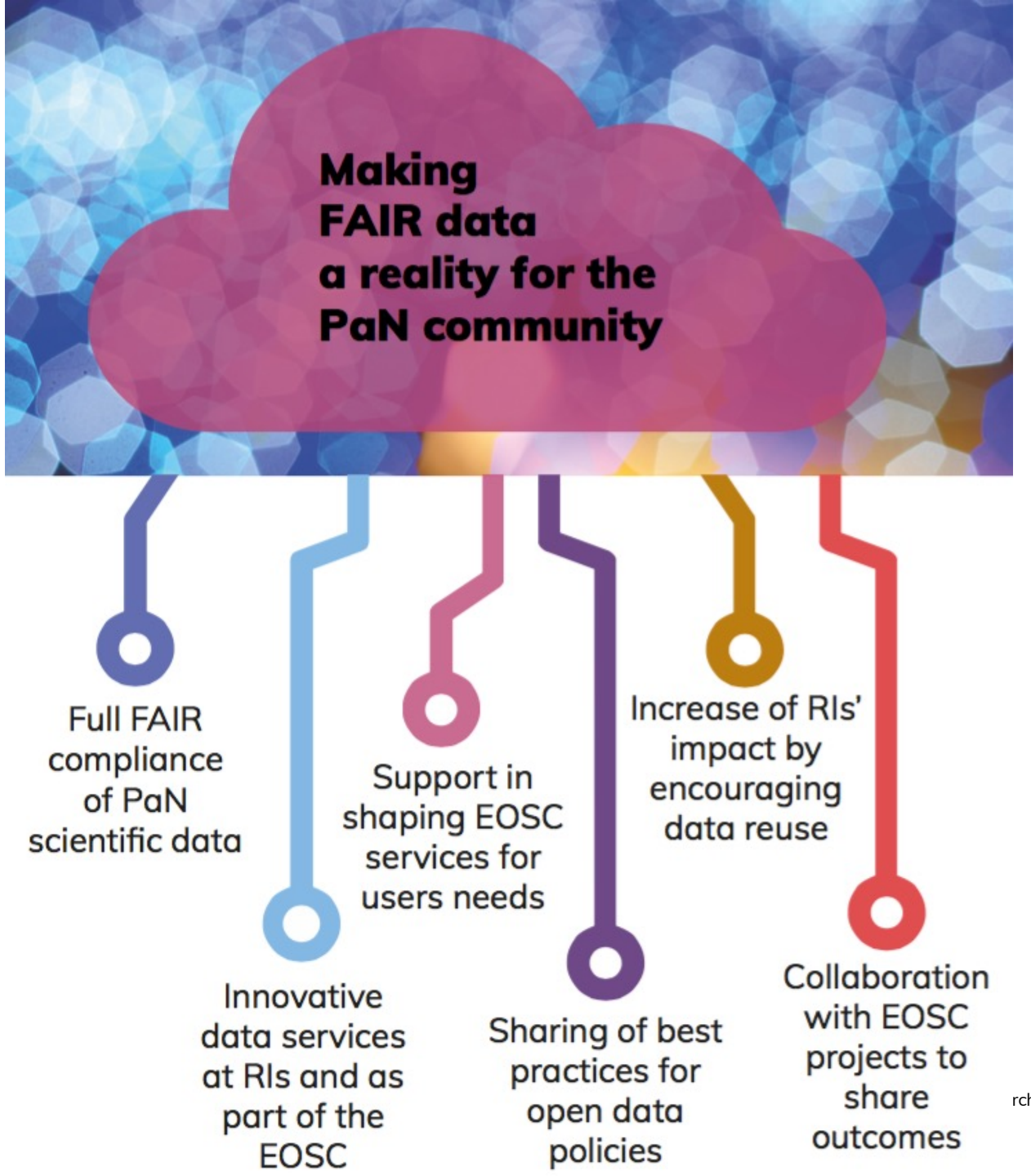
Conclusion @ EOSC Stakeholders meeting

PaNOSC is a joint effort to help the ESFRI Photon and Neutron sources to **adopt** and **implement data management**, **simulation** and **analysis services** for dealing with the increasing data rates and volumes and making **Open Data** available to the **EOSC**

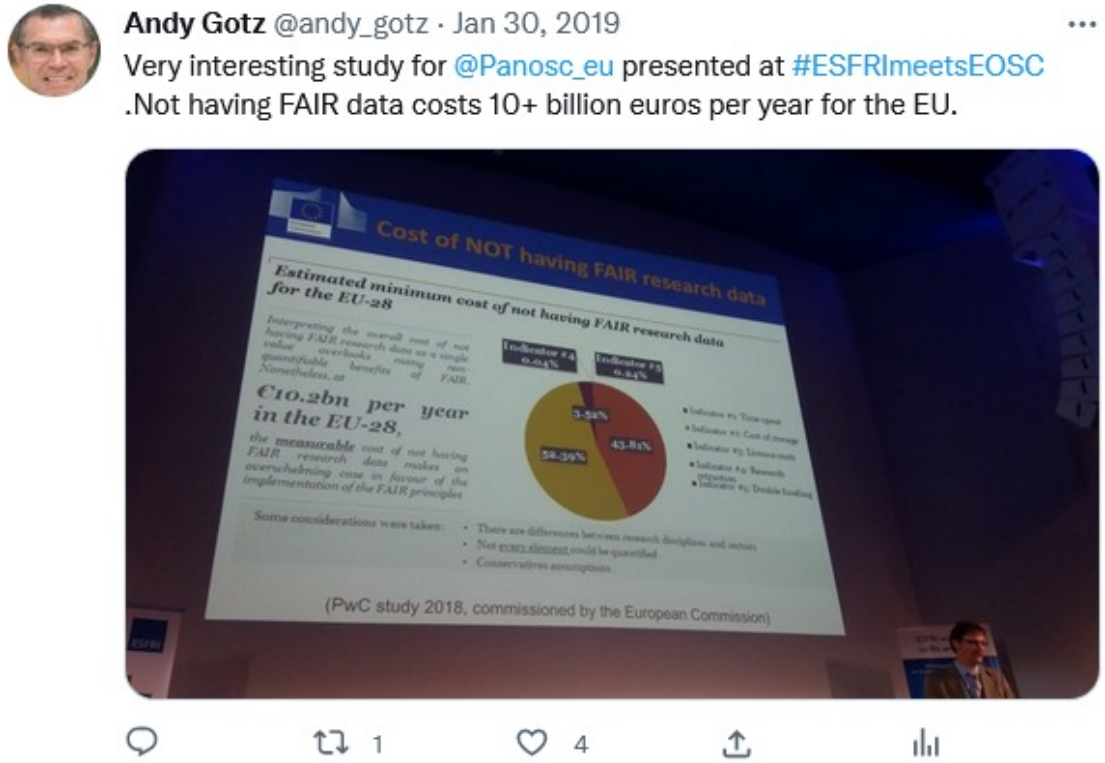
This project will receive funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 823852

PaNOSC Kickoff meeting at ESRF (January 2019)





PaNOSC works closely with the PaN sources in Europe to develop common policies, strategies and solutions in the area of FAIR data policy, data management and data services, integrating them into the EOSC.



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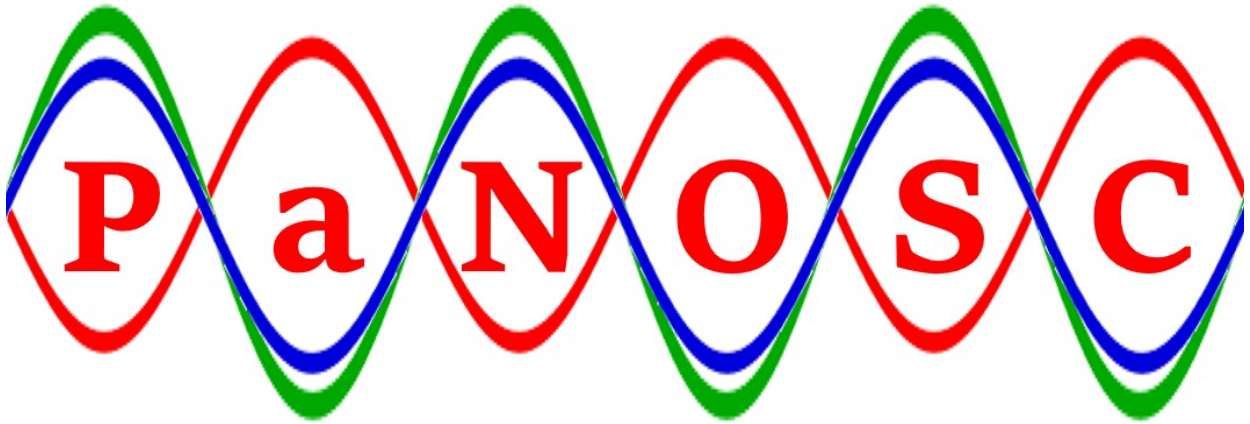

Photon and Neutron Open Science Cloud

The PaNOSC Project

R. Dimper – on behalf of the Consortium
30 January 2019

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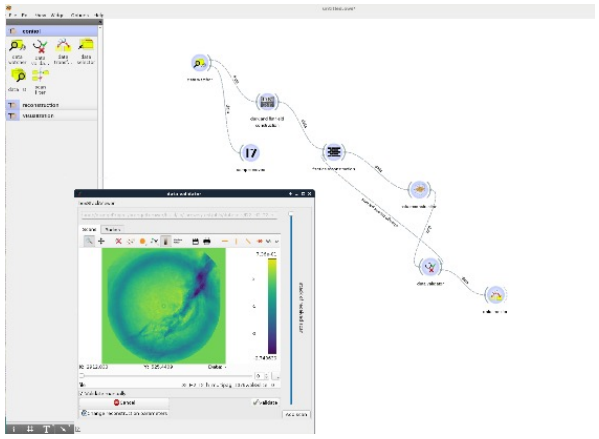
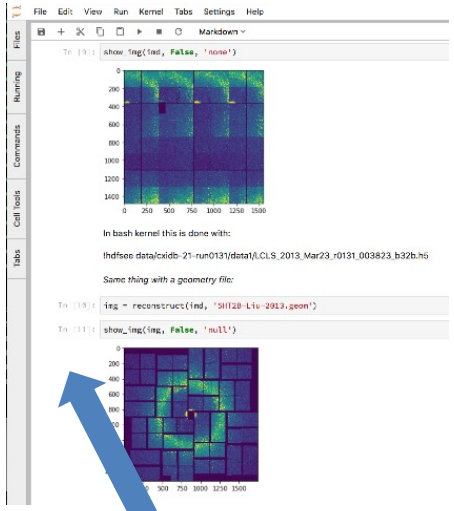
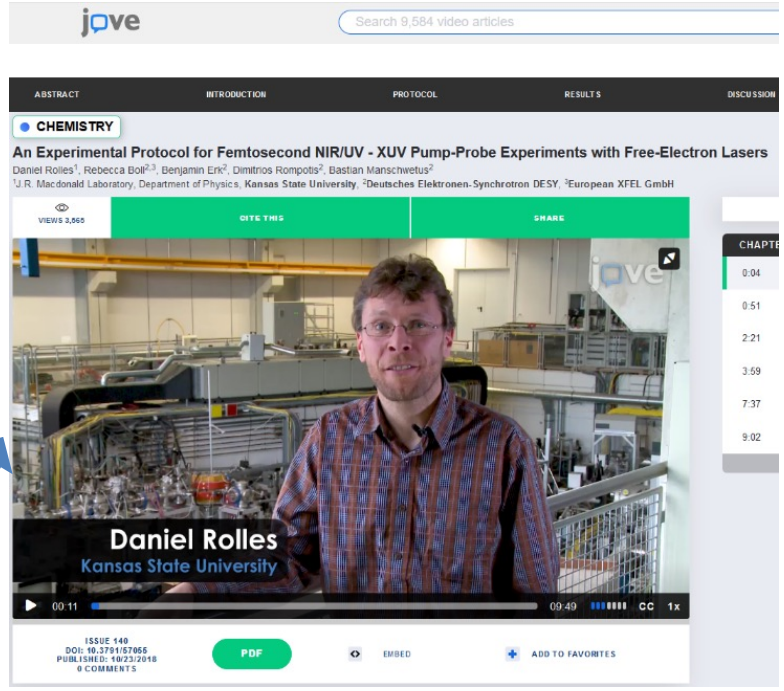
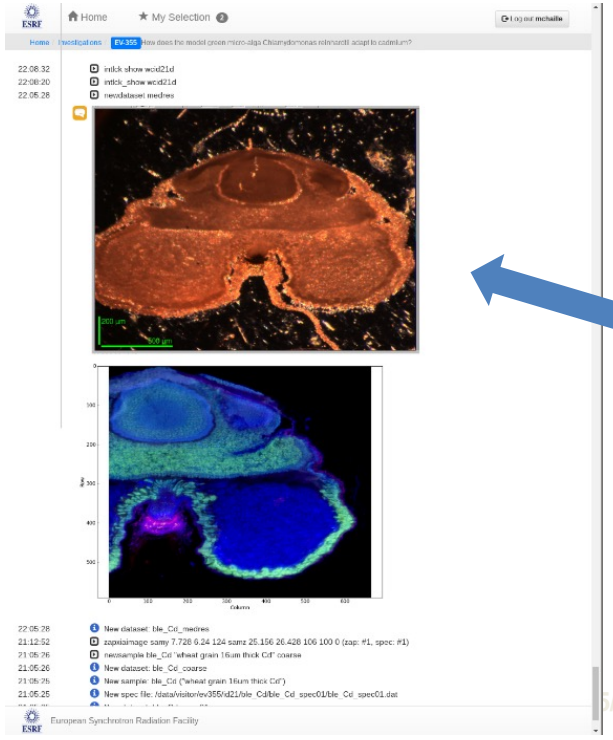
PaNOSC aim - link all scientific data + output together

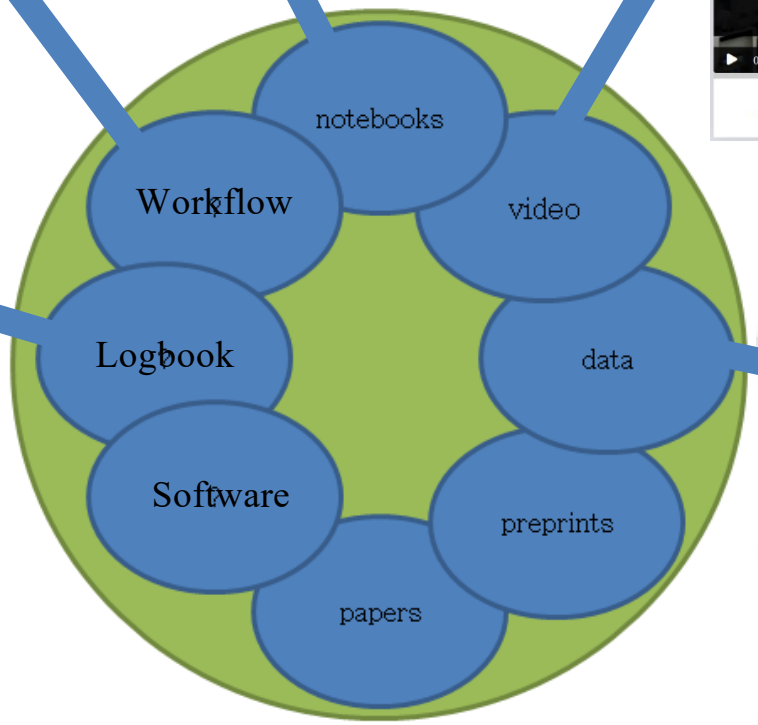
Image Source: http://michaelnielsen.org/blog/the-future-of-science-2/

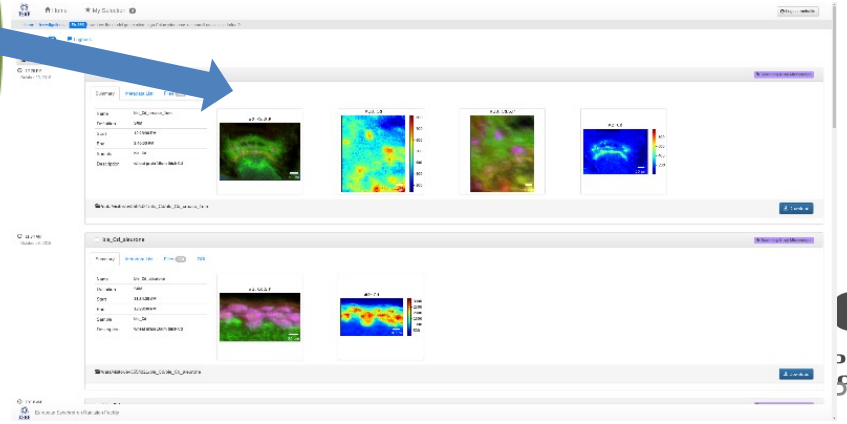


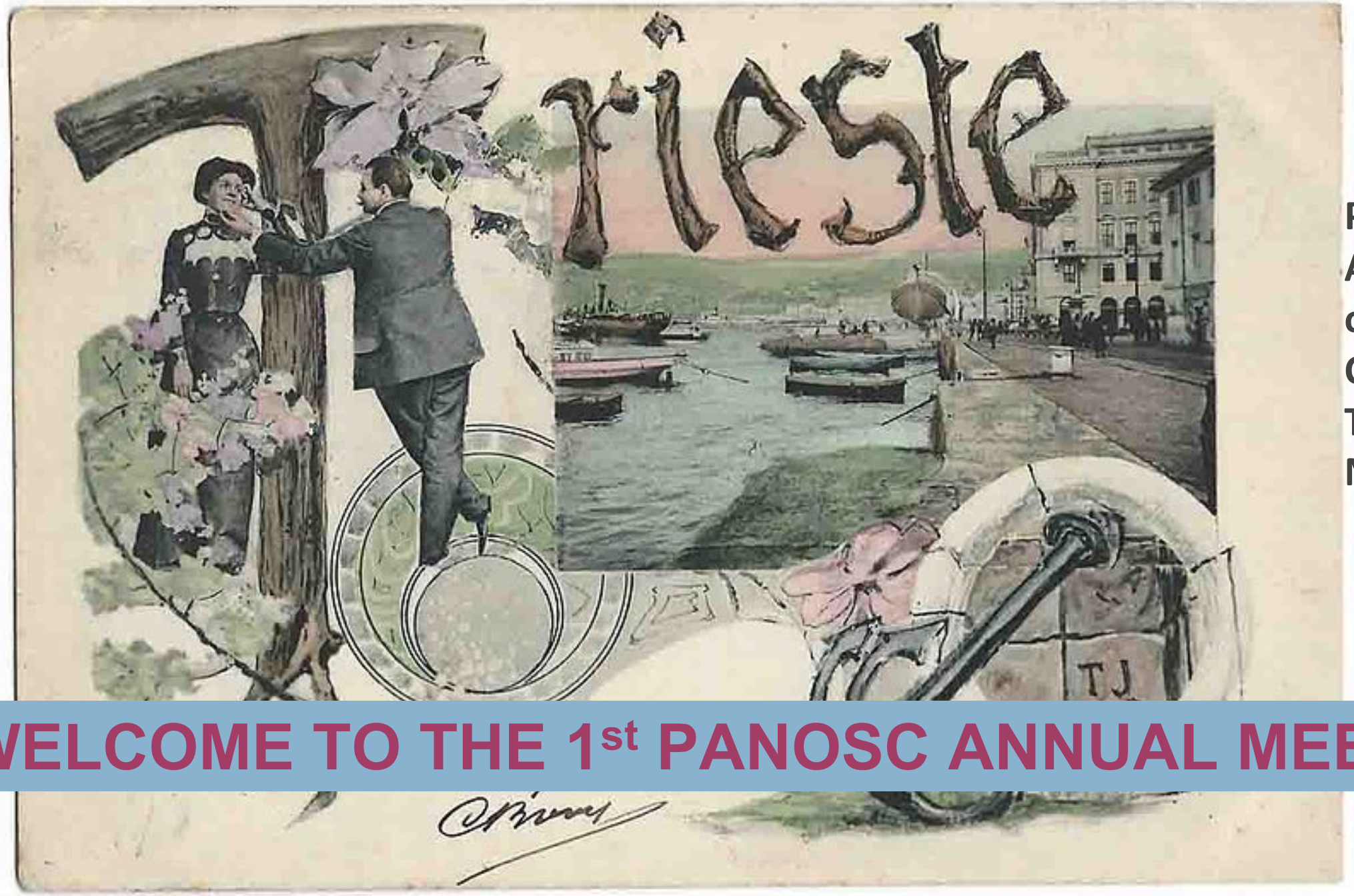












PaNOSC First Annual Meeting organized by CERIC-ERIC in Trieste in November 2019

WELCOME TO THE 1st PANOSC ANNUAL MEETING !

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PaNOSC First Annual Meeting in Trieste at CERIC-ERIC (November 2019)

ExPANDS sister project to PaNOSC — *Knut Sander*
Savoy Hotel, Trieste 16:30 - 16:50

EOSC Federating Core — *Dale Robertson*
Savoy Hotel, Trieste 08:20 - 08:40

Report from RDA 14 — *Ornela de giacomo*
Savoy Hotel, Trieste 17:45 - 18:00

FAIR Crystallographic data — *Brian McMahon*
Savoy Hotel, Trieste 11:10 - 11:30

Reproducible big data analytics: the EGI solution — *Giuseppe La Rocca*
Savoy Hotel, Trieste 10:30 - 10:50

EGI Notebooks, DataHub, Binder (Giuseppe Larocca)	WP2 face-2-face	WP 6 face-2-face	WP 5-WP 8 face-2-fa	WP 3 face-2-face
PaNOSC Portal arch... *Mr Jamie...*				

Reproducible science studies (Robert, Vincent)

6 Nov 2019, 11:30
30m
Basovizza (Trieste)

Speaker

Thomas Vincent

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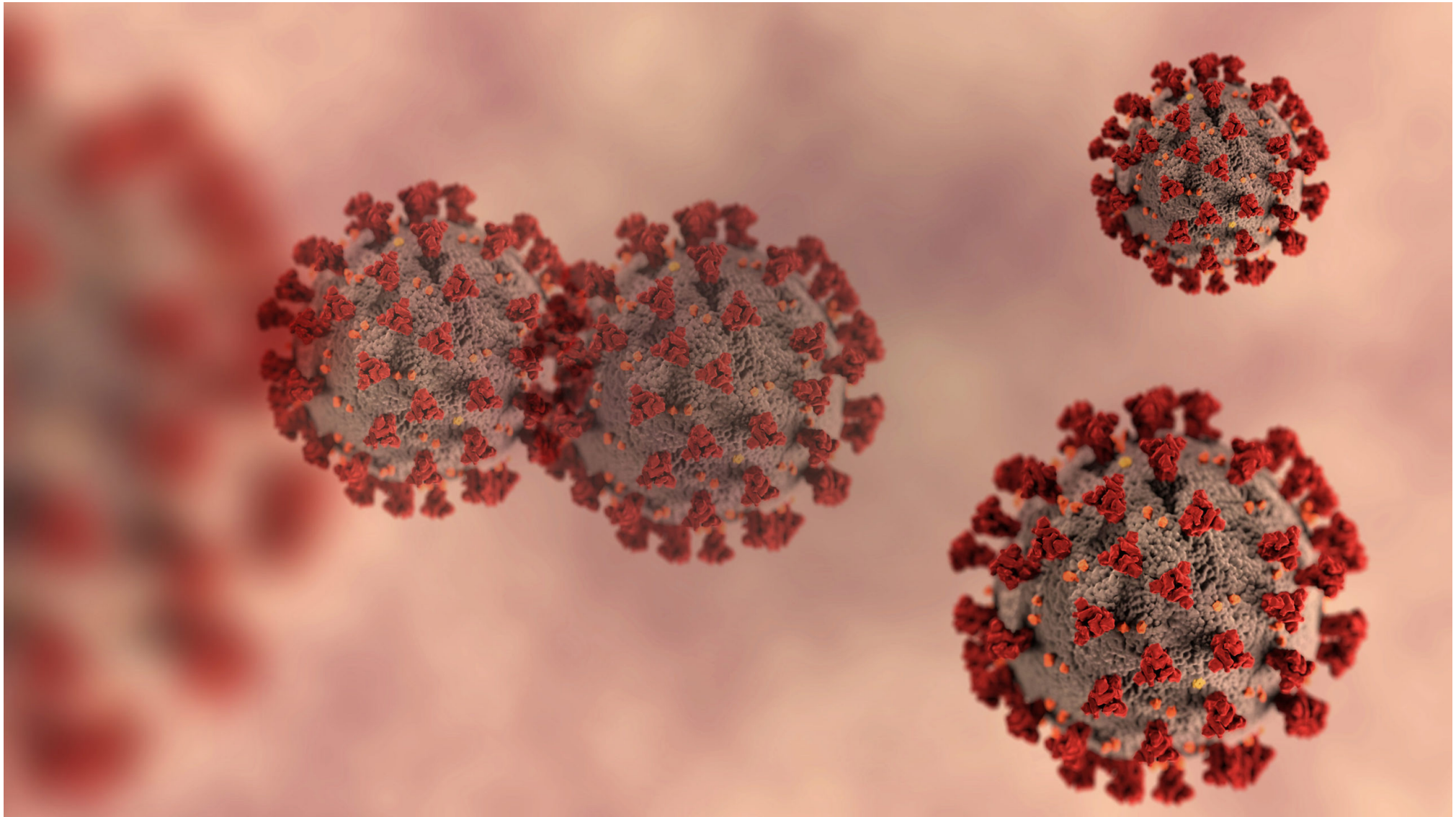
And then came COVID-19 … and BOOM we moved to ZOOM for 2 years 2020+2021



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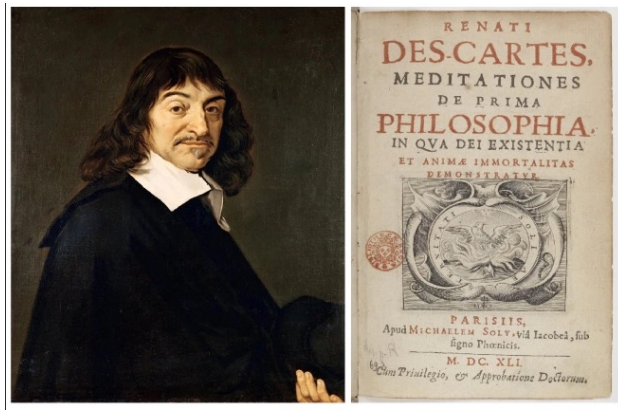
KPIs - Before PaNOSC - 2018

	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 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

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

The world's first Open Scientist?



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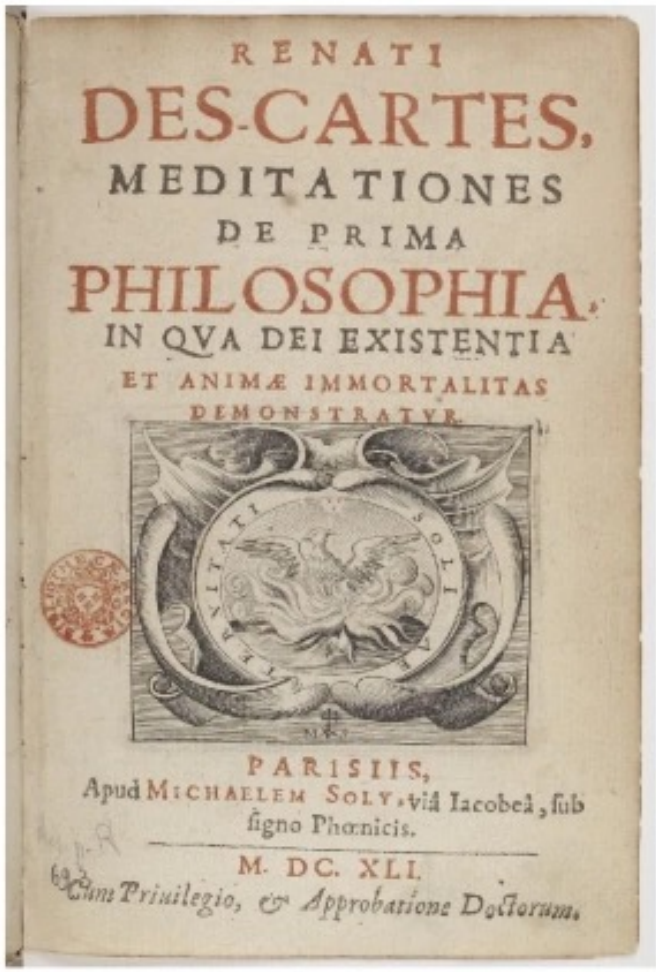

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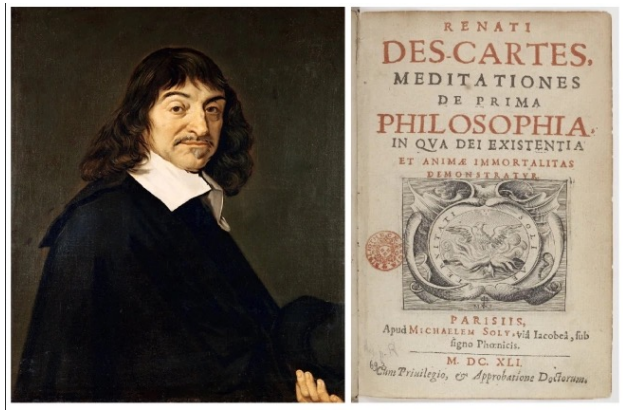
Open Access – problems with Elsevier already in 1636?



- **to Mersenne, iii.1636:**

About five weeks ago I received your most recent letter, dated 18.1.36; I hadn't received its predecessor until four or five days before that. I postponed replying to you because I reckoned on being able to tell you soon that I had sent ·my work· to the printer. [This refers to ***Discourse on the Method, with the Optics, Meteorology, and Geometry****, published by Jean le Maire of Leiden in June 1637.] That's why I came here to Leiden, because the* ***Elseviers have said they would like to be my publishers. But now that they've seen me here they seem to think that they have caught me, which has led them to make difficulties; so I have decided to drop them.***

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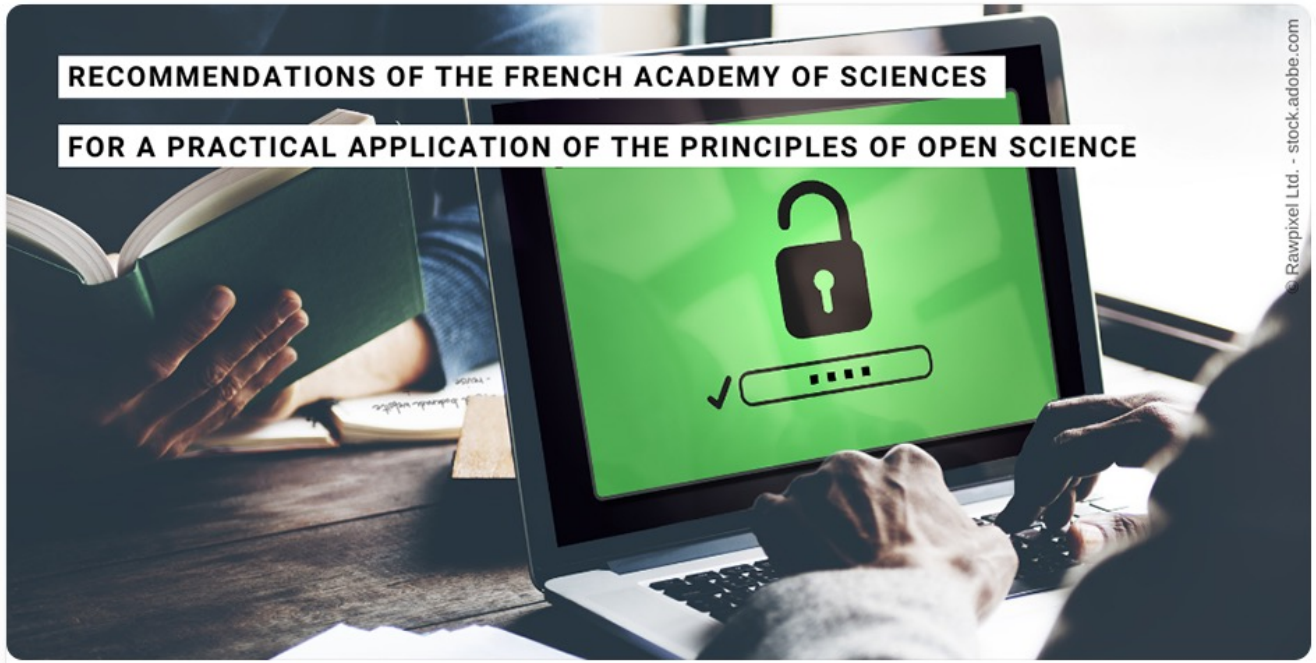
350+ years later

INSTITUT DE FRANCE
Académie des sciences

FR search...

ABOUT US | SCIENTIFIC COMMUNITY | SCIENCE TEACHING | TRANSMITTING KNOWLEDGE | INTERNATIONAL COLLABORATION | EXPERTISE & ADVICE



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Home | Fellows | Events | Grants, Schemes & Awards | Topics and Policy | Journals | Collections

Open science

Royal Society Publishing supports open access as a means of maximising the dissemination and re-use of research outputs.

Open access is part of the wider concept of **open science** which seeks to open up the entire research and publication process even further, including open data, open protocols, open code and transparent peer review. This page outlines some of the open science initiatives at the Royal Society.

- Open data
- Article and journal metrics (DORA)
- Open citations
- Preprints
- Authorship and contributorship
- Transparent peer review
- Objective peer review
- Registered Reports
- Replication studies
- The future of open science

Enjoy the Closing Event session talks + take part in the discussions + chats!

PaNOSC Closing Event

Paving the way towards the PaN FAIR Data Commons

29-30 November 2022

Grenoble - France

Thank you

andy.gotz@esrf.fr

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Project conclusion

Four years of PaNOSC

- Team effort has been essential
- WP leaders have been the driving force
- WP members have been the working force
- Project has achieved almost all of its KPIs
- Description of Work for the project steered the project
- COVID-19 was a challenge but also an opportunity e.g. for VISA, remote experiments, data portal, remote collaboration etc.
- Collaboration with ExPaNDS was essential, without it the PaN community would not be in a position to continue as a community

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